

# PRODUCT TRAINING

May 15 - 17, 2018 | Grow Headquarters



GROW.COM

**Certified Partner  
Training 2018**

# DAY ONE

- Metric Builder Overview
- Chart Settings
- Data Transforms
- Data Blends

# DAY TWO

- Data Sources
- Working with APIs
- Data Bar

# DAY THREE

- Additional Features
- SQLite
- Data Bar/Exam

# Certified Partner Assessment

Partner Resource Page > Assessment Instructions & Assessment Metric List

# METRIC BUILDER & TRANSFORMS

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DAY ONE

# ETL

(Extract, Transform, and Load)

# ETVis

(Extract, Transform, and Visualize)

# Metric Builder

Chart settings is where you select the chart visualization

> Edit Metric

Metric Title  
Bounce Rate MTD

CHART SETTINGS

DATA SETTINGS

Set the metric description

Metric Description

Data series are any of the data selected to visualize (y axis)

Data Series

REPORT1 / Column A

REPORT1 / Column C

Data settings is where you define the data used in the metric

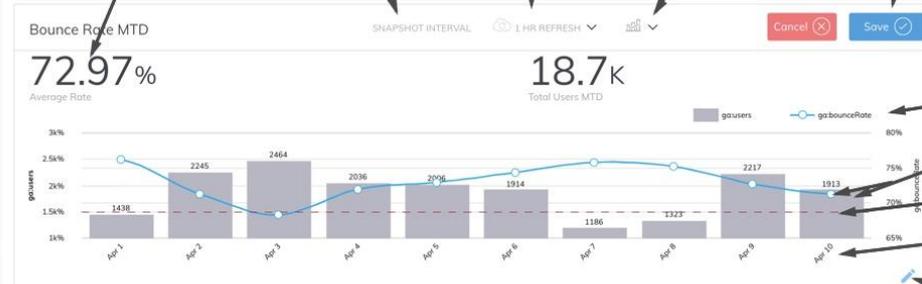
Key Value

Set the frequency of the metric history snapshots

Set metric refresh rate

Select chart type

Save metric



Toggle between existing reports and add new data to metric

Display Legend on Bottom

Start Value Axis at 0

Select Series Title from data set

Add TrendLine

Enable 2 Value Axes

Add data transforms

Set the chart labels (x axis)

Chart Labels

Key Value

Select a key value

Goal Line

Set a goal line

Filterable Columns

Set columns available in the expanded view

REPORT1 X REPORT2 X REPORT3 (JOIN) X SPREADSHEET FUNCTIONS ADD NEW REPORT

Add Transform Clear All

	A	B	C	D	E	F	G	H
1	gausers	gabounces	gabounceRate	ga:date	Bounce Rate 2	Overall Sum of gausers	Overall Average of gabounces	Overall Average of gabounceRate
2	1438	1216	76.19047619047619	2018-04-01	105.9047619047619	18742	1553.9	72.97
3	2245	1848	71.2688006170459	2018-04-02	99.06363285769379	18742	1553.9	72.97
4	2464	1925	68.26241134751773	2018-04-03	94.88475177304963	18742	1553.9	72.97
5	2036	1688	71.95225916453538	2018-04-04	100.01364023870417	18742	1553.9	72.97
6	2006	1701	72.91041577368196	2018-04-05	101.34547792541792	18742	1553.9	72.97
7	1914	1631	74.30523917995444	2018-04-06	103.28428246013667	18742	1553.9	72.97
8	1186	993	75.74370709382151	2018-04-07	105.2837528604119	18742	1553.9	72.97
9	1323	1097	75.18848526387937	2018-04-08	104.51199451679231	18742	1553.9	72.97
10	2217	1854	72.67738141905136	2018-04-09	101.02156017248139	18742	1553.9	72.97
11	1913	1586	71.24887690925426	2018-04-10	99.03593890386342	18742	1553.9	72.97
12								
13								
14								
15								
16								
17								

Data table, See your data transforms applied here.



# Chart & Data Settings

Data options depending on the data source. In this case, Google Sheets a file sharing platform

Displays the name of the data source account

Clicking here will show you advanced options available for all data sources

Use if a date in the file needs to be reformatted

Select if you need to rotate the data table

If your data table has duplicate or blank headers this will replace all of them

DATA SETTINGS

DATA SETTINGS

Data Source Connected

Use Existing Account

Josh Davis

Select your File:

Google Sheets >

search files or folders

File	Size
Grow/Arma - PD Weekly Report	
SPS Patient Tracker.xlsx	
Sales Report	
0. Master - Dashboard Design Workbook	
2016 PRODUCTIVITY REPORT (ALL CLINICS)	
2016 Strategic Map	

Select a sheet:

Salesforce Demos

Advanced options

Table date format

Type Column Name To Format  
Demo\_Set\_Date\_\_c

Rotate table data

Add column headers

Connect

Data Settings is where you set the parameters for the data you bring into the metric

Click here to switch to a different connected account

Click here if you need to add a new account to this data source

Data series is the data selected in the visualization.

Data selected from Report1, Column A

Click here to change the color from a color palette or apply a unique hex code

Will show the data series values on the visualization. Labels can be rotated if desired.

This data series has different formatting options because its a line.

Default formatting options for the data series

Display the chart legend below the chart

The chart axis is "best fit" so select this if you prefer axis to start at zero.

Data Series

REPORT1 / Column A Bounce Rate

Data Series Color-Picker

Select a starting color or enter a hex code | Hex #ffc559

Advanced Number Formatting

Label % None 1234.56 1,234.56

Show Value Labels

Label Rotation

Show negative values in red

REPORT2 / Column A Users

Data Series Color-Picker

Select a starting color or enter a hex code | Hex #002235

3px

Solid Line with Shadow

Advanced Number Formatting

Format Number, Rounded (1,2...

Round Bullets

Show Value Labels

Show negative values in red

Display Legend on Bottom

Start Value Axis at 0

Select series Title from data set

Add TrendLine

Enable 2 Value Axes

Data series name, shown in the metric legend

If you need a different currency number or formatting, select advanced formatting

If your data series has negative values, you can show them in red.

Change the weight of the line or apply different line styles

If your data changes or shifts, then select the data series titles to come from data using this option.

Apply a trendline to the visual.

Apply a dual axis if your data series don't have a similar scale



# Data Transforms

- Built for customers who don't know (or don't want to learn) SQL
- Can be used in any order



REPORT1 X SPREADSHEET FUNCTIONS ADD NE

Add Transform

	A	
1	ga:bounceRate	ga:avgSessionDuration
2	70.91	1.91
3	83.1	0.44
4	60.29	2.72
5	64.68	1.84
6	60.77	2.25
7	56.6	3.86
8	63.49	2.54
9	81.82	1.24
10	73.08	2.61
11	73.53	0.27
12	67.05	4.09
13	59.42	3.52
14	70.54	3.88
15	61.06	2.82
16	61.7	2.04



# Order of Operations

## Data Readiness Transforms:

- Remove Columns
- Filter Data
- Calculated Columns
- Tagging
- Time Shifting
- SQL

## Visual Prep Transforms:

- Grouping
- Pivots
- Sorting
- Comparisons
- Sum, Count, Ave, Min, Max

\*These are general guidelines



# Spreadsheet Functions

> Edit Metric

Metric Title  
Bounce Rate MTD

CHART SETTINGS    SPREADSHEET FUNCTIONS

To reference spreadsheet cells in spreadsheet functions use spreadsheet! Can't reference spreadsheet data anywhere outside of spreadsheet functions.

To reference all other reports including Join and Master reports use the corresponding report1' or report2', etc. Can't reference spreadsheets in these other reports.

Example  
=report1!A2  
=report1!B3 + report3!B5  
=spreadsheetA1+spreadsheetB1

Available spreadsheet functions

**SUM**  
Returns the sum of a series of numbers and/or cells.  
Example  
=SUM(report1!A2:A100, 101)

**MULTIPLY**  
Returns the product of a series of numbers and/or cells.  
Example  
=MULTIPLY(report1!B1:A100)

**AVERAGE**  
Returns the average of a series of numbers and/or cells.  
Example  
=AVERAGE(report1!A)

**COUNT**  
Returns the amount size of a series  
Example  
=COUNT(report1!A)

**MIN**  
Returns the minimum value of a series of numbers and or/cells  
Example  
=MIN(report1!A)

**MAX**  
Returns the maximum value of a series of numbers and or/cells

Functions supported by this feature

Bounce Rate MTD

1,872.5%  
Average Rate

REPORT1    REPORT2    REPORT3 (JOIN)

Use to lock first row or first column

	A	B	C	D	E	F	G
1	AvgBounceRate6Months						
2	1872.5						
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
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23							
24							
25							
26							

Type functions in to the cell

- The tool is useful, but shouldn't be overused.
- Most commonly used to calculate a key value or comparison value to use in the metric
- Spreadsheet function is not dynamic and formulas won't apply if a column of data adds more rows
- Not as robust as excel, only available functions found in the list
- Encourage users to use the Data Transform tools as much as possible. Those tools are more powerful and dynamic.



# Practical: Data Transforms - Metric #1



- Report: Sales Data (Salesforce)
- Data from website leads only
- Weekly ACV
- Cumulative MRR
- Key Value (spreadsheet functions)
- Match visuals and formatting



# Metric #1 - Hint

> Edit Metric

Metric Title

ACV vs Cumulative MRR (YTD - Weekly)

CHART SETTINGS

DATA SETTINGS

Metric Description

Data Series

- REPORT1 / Column B Weekly ACV Sold
- REPORT1 / Column E Cumulative MRR S

- Display Legend on Bottom
- Start Value Axis at 0
- Select series Title from data set
- Add TrendLine
- Enable 2 Value Axes

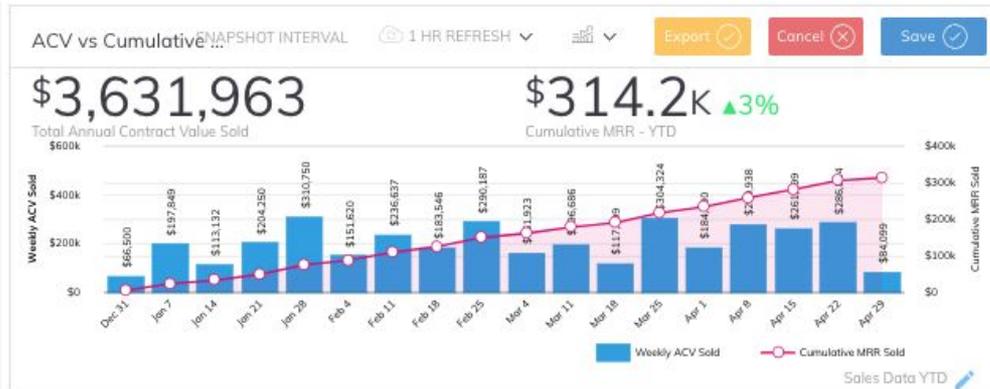
Chart Labels

Key Value

- REPORT1 / F2 Key Value
- SPREADSHEET / B2 Key Value

Add Value

Goal Line



REPORT1 x SPREADSHEET FUNCTIONS ADD NEW REPORT +

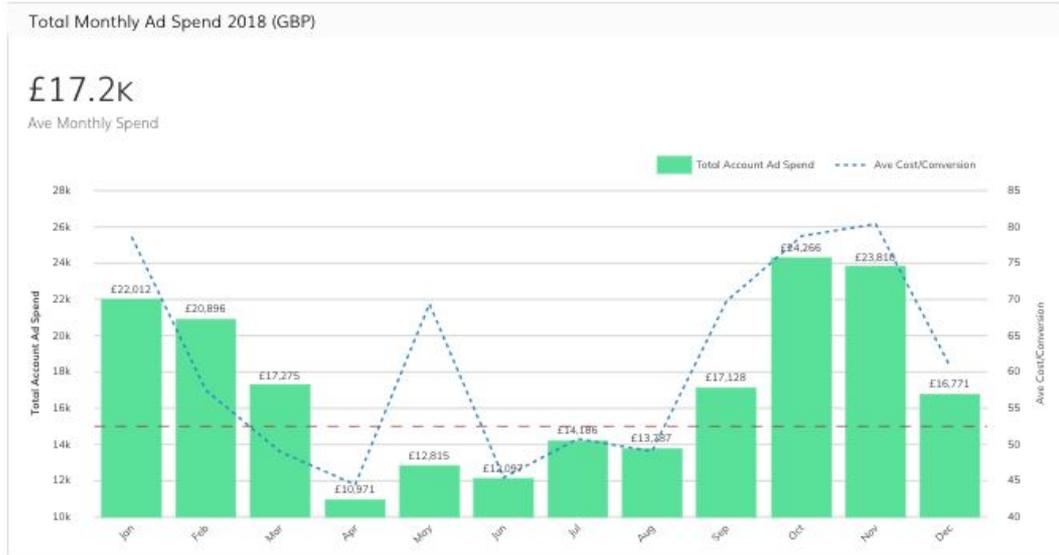
Add Transform Clear All

	B	C	D	E	F
1	Sum of ACV	Sum of MRR	Overall Cumulative Sum of Sum of ACV	Overall Cumulative Sum of Sum of MRR	Overall Sum of Sum of ACV
2	66500	6315.69	66500	6315.69	3631962.96
3	197849	17930.77	264349	24246.46	3631962.96
4	113132	9119.35	377481	33365.81	3631962.96
5	204250	16733.62	581731	50099.43	3631962.96
6	310750	25491.73	892481	75591.16	3631962.96
7	151619.96	12722.63	1044100.96	88313.79	3631962.96
8	236637	21609.35	1280737.96	109923.14	3631962.96
9	183546	15621.23	1464283.96	125544.37	3631962.96
10	290187	24588.07	1754470.96	150132.44	3631962.96
11	161923	11691.28	1916393.96	161823.72	3631962.96
12	196686	16822.25	2113079.96	178645.97	3631962.96
13	117999	12394.98	2231078.96	191040.95	3631962.96
14	304324	27115.77	2535402.96	218156.72	3631962.96
15	184600	16191.5	2720002.96	234348.22	3631962.96
16	279938	24728.4	2999940.96	259076.62	3631962.96
17	261099	23247.21	3261039.96	282323.83	3631962.96
18	286824	23562.06	3547863.96	305885.89	3631962.96

DATA PREVIEW OPTIONS



# Practical: Data Transforms - Metric #2



- Report: Account Ad Performance (Adwords)
- Spend vs Cost/Conversion
- Goal Line
- Currency in GBP (£)
- Monthly Snapshot (London)
- 30 min data refresh



# Metric #2 - Hint

## Edit New Metric

Metric Title

Total Monthly Ad Spend 2018 (GBP)

CHART SETTINGS

DATA SETTINGS

Metric Description

Data Series

- REPORT1 / Column B Total Account Ad S
- REPORT1 / Column C Ave Cost/Conversi

- Display Legend on Bottom
- Start Value Axis at 0
- Select series Title from data set
- Add TrendLine
- Enable 2 Value Axes

Chart Labels

REPORT1 / Column A

Rotate labels on chart

Change Date Format

Jan

Symbol or Label Input

Symbol Location

Label Size

Key Value

Goal Line

Enter value for Goal Line

Goal Line

15000

Total Monthly Ad Spend 2018 (GBP)

SPAPSHOT INTERVAL

30 MIN REFRESH

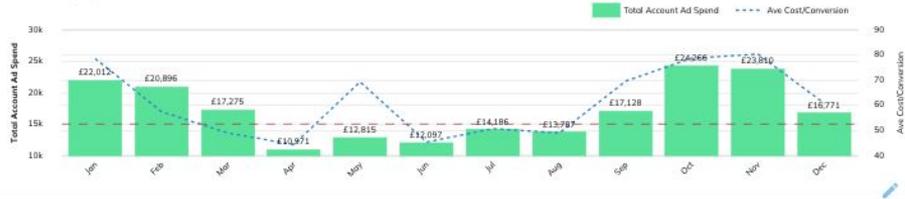
Export

Cancel

Save

£17.2k

Ave Monthly Spend



REPORT1

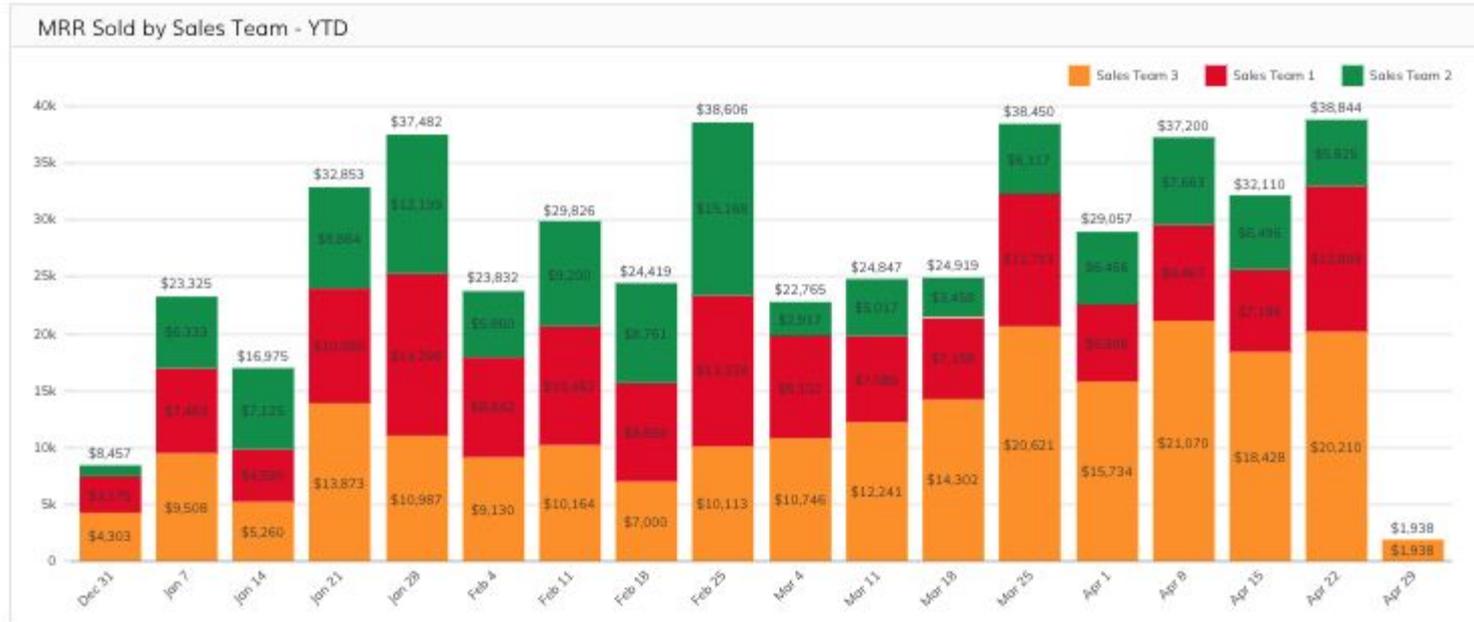
SPREADSHEET FUNCTIONS

ADD NEW REPORT

	A	B	C	D
1	day	Sum of cost_adjusted	Average of cost/conv adj	Overall Average of Sum of cost_adjusted
2	2018-01	22012.35	78.65	17167.67
3	2018-02	20895.57	57.51	17167.67
4	2018-03	17274.63	49.02	17167.67
5	2018-04	10970.58	44.45	17167.67
6	2018-05	12814.58	69.38	17167.67
7	2018-06	12097.4	45.43	17167.67
8	2018-07	14185.55	50.78	17167.67
9	2018-08	13787.13	49.07	17167.67
10	2018-09	17127.58	69.71	17167.67
11	2018-10	24265.63	78.74	17167.67
12	2018-11	23809.85	80.41	17167.67
13	2018-12	16771.19	60.82	17167.67
14				
15				
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25				
26				
27				



# Practical: Data Transforms - Metric #3



- Report: Sales Data (Salesforce)
- MRR Sales by Sales Team
- Tagging - Create three teams
- Pivot
- Select data series titles from data
- Show value labels



# Metric #3 - Hint

## Edit New Metric

Metric Title

MRR Sold by Sales Team - YTD

### CHART SETTINGS

### DATA SETTINGS

Metric Description

### Data Series

- REPORT1 / Column B Sales Team 2
- REPORT1 / Column C Sales Team 1
- REPORT1 / Column D Sales Team 2

Add Data

- Show Legend When Metric is Expanded
- Display Legend on Bottom
- Start Value Axis at 0
- Select series Title from data set

Title selection:  
REPORT1 / B1 to D1

Clear title selection

- Add TrendLine
- Display Totals

Format

Currency, Rounded (\$1,235)

### Chart Labels

REPORT1 / Column A

- Rotate labels on chart

Change Date Format

Jan 1



REPORT1 SPREADSHEET FUNCTIONS ADD NEW REPORT

Add Transform Clear All

	A	B	C	D
1	CloseDate	Sales Team 3	Sales Team 1	Sales Team 2
2	2017-12-31	4303.18	3175.01	979.1700000000001
3	2018-01-07	9508.03	7483.35	6333.35
4	2018-01-14	5260.2800000000001	4590.18	7125.02
5	2018-01-21	13873.4	10095.810000000001	8884.070000000002
6	2018-01-28	10987.1	14295.900000000001	12199.27
7	2018-02-04	9130.45	8841.69	5860.1
8	2018-02-11	10164.480000000001	10461.53	9200.04
9	2018-02-18	7000.040000000001	8658.69	8760.54
10	2018-02-25	10113.45	13324.03	15168.44
11	2018-03-04	10745.77	9102.34	2916.6800000000003
12	2018-03-11	12241.3	7589.290000000001	5016.6900000000005
13	2018-03-18	14302.230000000001	7158.370000000001	3458.3500000000004
14	2018-03-25	20620.689999999995	11712.570000000002	6116.68
15	2018-04-01	15733.570000000002	6867.64	6455.89
16	2018-04-08	21070.479999999996	8466.7	7662.52
17	2018-04-15	18428.449999999997	7185.870000000001	6495.860000000001
18	2018-04-22	20210.069999999992	12808.59	5825.030000000001
19	2018-04-29	1937.5100000000002		
20				
21				
22				
23				
24				
25				



# Data Blends: Things to Note

**Both data sets need a common value to join on:** Dates (common),  
Unique ID

**Left Joins:** Bring data from the second report to “join” onto the first report (reports ordered L to R)

**Inner Join:** Data only found in both reports (will lose any data where the common value is not found in both reports) Ex: Venn Diagram

**Clean up datasets prior to joining.** Ex: Apply grouping transform, filter out unnecessary data, remove irrelevant columns.



# Data Blends: Joined Report

> Edit Metric

Metric Title  
Bounce Rate MTD

CHART SETTINGS JOINED REPORT SETTINGS

Connection 1 Connection 2

Select a Report report1 report2

Select a Common Value ga:date ga:date

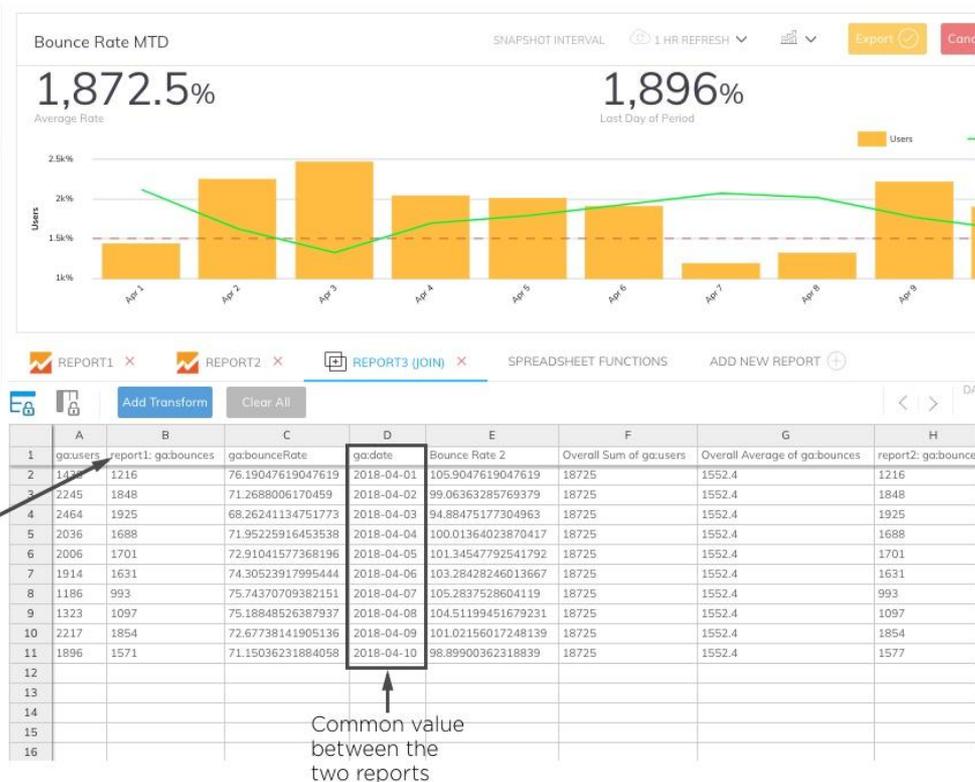
Left Join  Inner Join

Join

Select the reports to join

Specify the common value

If the two reports have column headers with the same name, then Grow will specify report1 or report2 in the joined report



Common value between the two reports



# Data Blends: Master Report

**Edit Shared Metric** <

Main Title  
Sales Leaderboard

CHART SETTINGS      **MASTER REPORT**

Transform with SQL. You can use the table names and columns listed below in your query.

Add column headers (SELECT columnB as name from report1.)

[Getting SQL errors? View common errors and solutions >](#)

```

1 SELECT *
2 CASE WHEN 'Sales Rep' LIKE '%A%' THEN 'A' END as
3 Sales_team_A
4 FROM report1
    
```

**Update**

**Report Headers**

report1

Sales Rep    Sum of Amount

Overall Sum of Sum of Amount

Overall Average of Sum of Amount

report2

ga:users    ga:organicSearches    ga:impressions

ga:date

..datesTable

This meta table has a date for every day back 2 years. Useful when filling in date ranges with joins.

date

..monthsTable

This meta table has entries that can be used to map numbers to the names or shortened names of the months of the year.

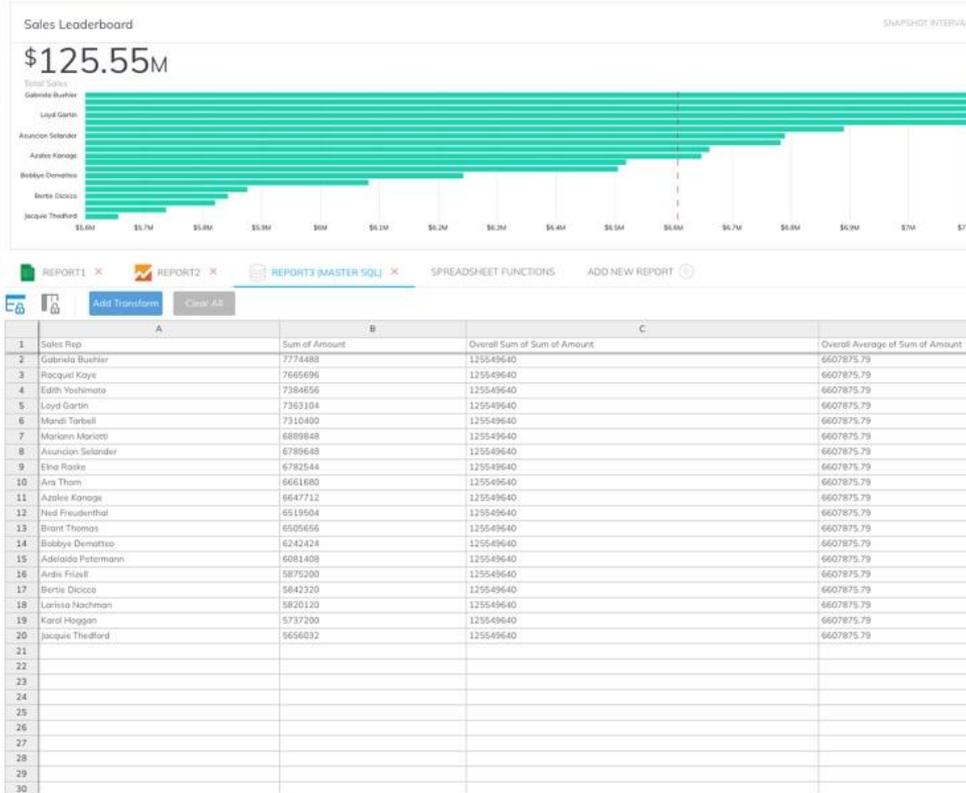
num    numStr    name    shortName

..namesAndShortNames    ..shortThisYear    ..shortLastYear

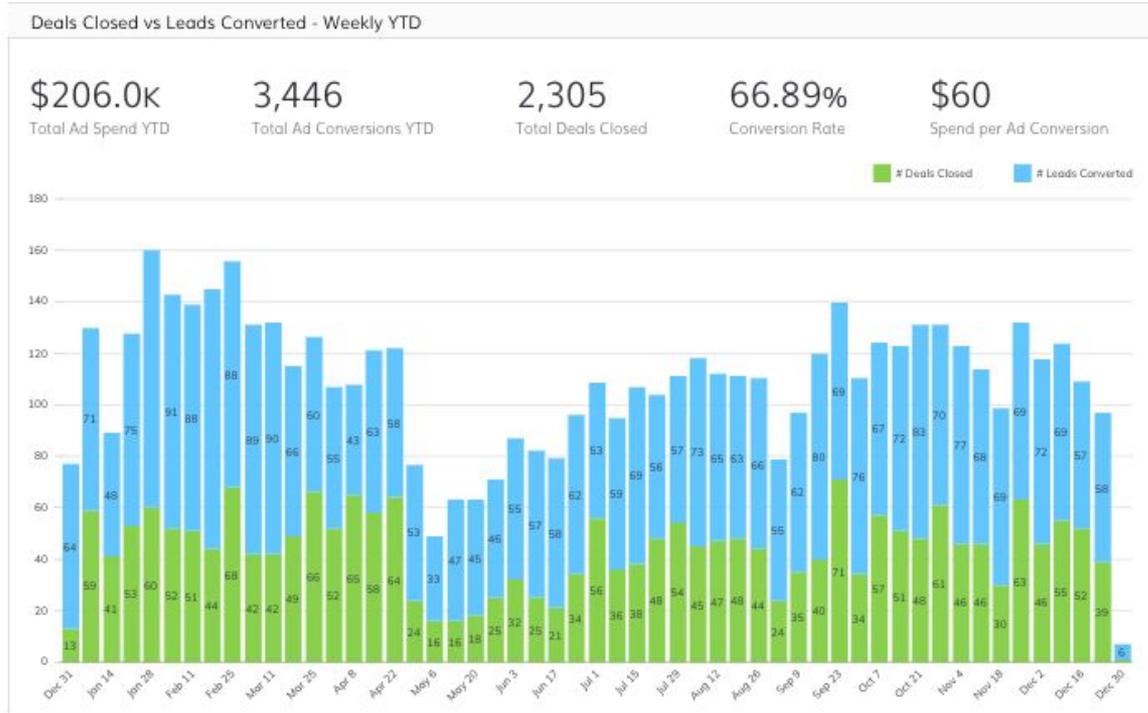
Query box to write the advanced join using SQLite

Report and column headers to reference in your query

Additional tables to reference as needed



# Practical: Data Blends - Metric #4



- Report: Sales Data (Salesforce), Account Ad Performance (Adwords)
- Joined Report
- Deals Closed/Leads Converted
- Ad Spend Data:
  - Remove irrelevant columns
  - Rename cost adj to "Ad Spend"
- Hint: Group sales data prior to join
- Calculated Columns for key value calculations



# Metric #4 - Hint

> Edit Metric

Metric Title

Deals Closed vs Leads Converted - Weekly YTD

CHART SETTINGS

JOINED REPORT SETTINGS

Metric Description

Data Series

- REPORT3 / Column D # Deals Closed
- REPORT3 / Column B # Leads Converted

Add Data

Show Legend When Metric is Expanded

Display Legend on Bottom

Start Value Axis at 0

Select series Title from data set

Add TrendLine

Display Totals

Chart Labels

Key Value

- REPORT3 / F2 Key Value
- REPORT3 / E2 Key Value
- REPORT3 / G2 Key Value
- REPORT3 / H2 Key Value
- REPORT3 / I2 Key Value

Add Value



REPORT1 x REPORT2 x REPORT3 (JOIN) x SPREADSHEET FUNCTIONS ADD NEW REPORT

Add Transform Clear All PREVIEW OPTIONS

	D	E	F	G	H	I
1	of Count	Overall Sum of Sum of conversions	Overall Sum of Sum of Ad Spend	Overall Sum of Sum of Count	Deal Closed Conversion rate	Spend per Conversion
2	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
3	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
4	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
5	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
6	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
7	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
8	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
9	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
10	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
11	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
12	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
13	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
14	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
15	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
16	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
17	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
18	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
19	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
20	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
21	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
22	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
23	3446	206012.04	2305	0.6688914683691236	59.7829483459083	
24	3446	206012.04	2305	0.6688914683691236	59.7829483459083	



# DATA INTEGRATIONS

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DAY TWO

# Data Connections

- Data is complex. Especially in SMB. Sometimes data doesn't exist, isn't clean or consistent.
- Working with APIs we're at the mercy of their rate limits, structure, and public data
- Grow has around 150 native integrations to external platforms
  - Grow website integration page  
<https://www.grow.com/integrations/>
  - Most Popular Integration Info  
<https://www.grow.com/integrations/hubspot-marketing-reporting-tool/>
  - Help Center Overview docs in the help center.  
<http://help.grow.com/connecting-your-data-crm/hubspot/hubspot-overview>



# File Sharing Platforms

- Used when customers rely on manual or automated exports from a data source we don't connect to
- Used for internal files not stored in a tool or platform
- Native Connections
  - [Amazon S3](#)
  - [Box](#)
  - [Dropbox](#)
  - [Egnyte](#)
  - [FTP/SFTP File Access](#)
  - [Google Sheets](#)
  - [OneDrive](#)
  - [OneDrive Business](#)



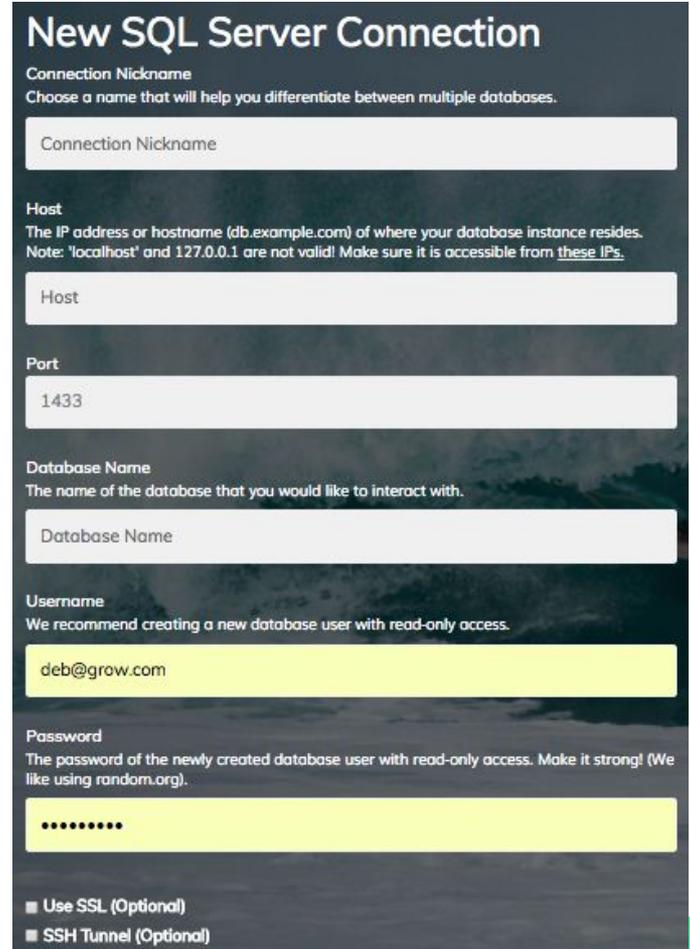
# File Sharing Platforms - Pro Tips

- **One sheet per dataset:** For Excel-based files, you can only select one sheet at a time in Grow. If you have an Excel doc with multiple sheets, you will need to pull in three reports into the metric, one for each sheet.
- **Unique column headers:** If there isn't a unique column header in your data set, the data won't be recognized in Grow. Ideally this is corrected on the original file, but if that isn't possible use Grow to replace the column headers as ColumnA, ColumnB, ColumnC, etc.
- **Correct data formatting:** Generally a tabular format, column headers in the first row, now empty rows or columns, dates in a YYYY-MM-DD format, and currencies as just number values without any symbols
- **File size limits:** Files must be smaller than 15 MB. We can make exceptions for files up to 50 MB. If your customer requires this on their account, , chat in to make the request.
- **File type and format:** Grow supports XLS, XLSX, XLSM, and CSV file types..
- **Syncing Files:** The files you want to use in Grow metrics must be in synced folders (customer side). If they aren't, metrics won't automatically reflect changes in the data set.



# Databases

- Clients should provide someone who knows the database schema and can query the data
- To connect will need to create a “Read Only” user on their database with admin level access and white list Grow’s IP addresses.
- The following is the list of databases that connect with Grow:
  - [Amazon Redshift](#)
  - [NuoDB](#)
  - [HP Vertica](#)
  - [Oracle](#)
  - [MongoDB](#)
  - [PostgreSQL](#)
  - [MySQL](#)
  - [SQL Server](#)



**New SQL Server Connection**

Connection Nickname  
Choose a name that will help you differentiate between multiple databases.

Connection Nickname

Host  
The IP address or hostname (db.example.com) of where your database instance resides. Note: 'localhost' and 127.0.0.1 are not valid! Make sure it is accessible from [these IPs](#).

Host

Port  
1433

Database Name  
The name of the database that you would like to interact with.

Database Name

Username  
We recommend creating a new database user with read-only access.

deb@grow.com

Password  
The password of the newly created database user with read-only access. Make it strong! (We like using random.org).

.....

Use SSL (Optional)  
 SSH Tunnel (Optional)

# APIs - What to Know

- Not all APIs are created equal.
  - Some have built in business logic, some don't.
  - Some contain useful, relevant data, others may be missing important endpoints.
- Platform specific analytics dashboard data may not match export/API data.
- APIs have different versions, each version may require a unique built out as endpoints and naming conventions change.
- To research an API, Google “[Platform name] API documentation”



# Working with APIs - Missing Data

1. Check any related help articles, or do a deep dive into the client's data in Grow. It's possible that the data they're seeking is hidden in the API somewhere, as a different column header or report.
2. Google the Platform's API documentation to see if that data field is available in the API. Occasionally, Grow is using an API version that doesn't include that data.
3. If API documentation shows the data to be publicly available, report the issue to Grow. We'll vet out the possibility of adding the data to the existing integration.
4. If the data does not appear to be accessible from the API, you can ask Grow to take a second look. (Make sure to set the right expectation with the customer so they understand it may not be possible to access.)
5. If Grow has confirmed that you cannot access that data point, then the customer will have to rely on accessing data through a file sharing platform and exports.



# Working with APIs - Rate Limits

**What is an API rate limit?** A limit on how many calls can be made per second (or minute, or other short time period), to access data.

**Metric Refresh Rate:** Make sure the metric refresh rate is compatible with the data source rate limits. Generally defaults to 1 hr.

**Account Level/Platform Package:** Some platforms increase rate limits based on your account level with them.

**API Documentation:** Check our help articles for known rate limit issues. You can also visit that particular API's documentation to read through their rate limits.



# MARKETING TOOLS

---

# Google Analytics



Use Existing Account

Select the account you want to pull data. → Jake Young + Add second GA instance

Sites:  
All Web Site Data - Master View (www.grow.com) → Select Sites  
Select which sites to pull data from. Depending on the metric you may bring in data across multiple sites.

Google Analytics Settings:  
See Documentation here → v4  
We recommend using the newer GA Version, Version 4.

ga:goalConversionRateAll × Metrics → Select the metrics to view. Can select up to 10 different metrics.

Enter a Metric or use button

ga:date × Dimensions → Select your dimensions. The GA API doesn't allow some dimensions to work together.

Enter a Dimension or use button

Date: 30 Days Back

Select the timezone the account is in. This will help to align data. → Select Time Zone (Optional)

Enter a Sort Option or use button → Sort Options → Apply a sort to the data before you pull it into Grow (optional).

Enter filter statement

Apply a filter to the data prior to pulling it into Grow (optional).

Add Segment → Segments → View data only for a selected segment (optional).

Select Sampling Level: Default (recommended) → Apply the level of data sampling. More sampling is faster. Less sampling is slower. GA recommends the default range.



# Data Source UI

- Top down order of operations
- Many fields are optional
- Required fields have an asterisk (\*) or are accounts, endpoints and date range



# GA - Things to Know

**Metric and Dimension Limits:** 8 metrics at a time. 3 dimensions at a time.

**Dimension and Metric Compatibility:** Some metrics and dimensions won't work together and will display an error in Grow when used jointly.

**Data Sampling:** To speed up data results, GA will select a sample data set of your data and then provide insight based on that sampled group. GA will tell you when they're sampling by saying "This report is based on 247,101 sessions (94.41% of sessions)." In Grow, you can specify the level of sampling. More sampling is faster, less sampling is slower. Grow will default to GA's recommended amount of sampling.

**Custom metrics and dimensions:** Occasionally, GA has metrics or dimensions with xx in them. For example: "ga:goalXXconversion". In this case, you replace the xx with the number of goal you have in your GA account. For Goal 6, the metric would read "ga:goal6conversion".



# Practical: Google Analytics Metric

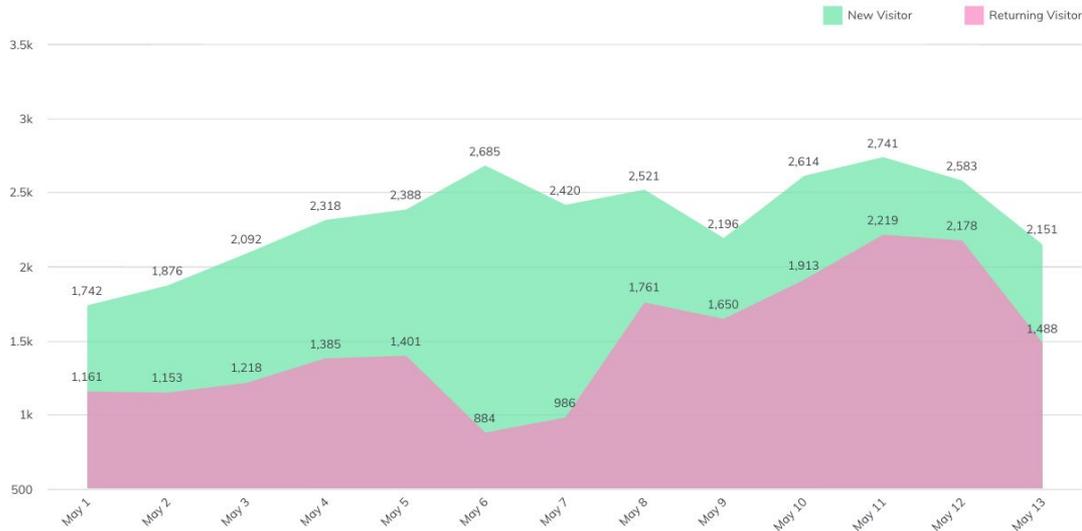
New vs Returning Visitor - MTD vs Last Month

30.3k ▲ 53%

Total New Visitors - MTD vs Last Month

19.4k ▲ 49%

Total Returning Visitors - MTD vs Last Month



- Report: Marketing Site Analytics (GA)
- Compare total daily sessions by visitor type
- Key values compared to last month, same day



# Date Interpolator

- For APIs with a date selection option
- Select the Custom Date Range

## Template:

```
{{date('start of week','YYYY-MM-DD')}}
```

## Example:

Start of last month: `{{date('-1months','start of month','YYYY-MM-DD')}}`

End of last month: `{{date('start of month','-1days','YYYY-MM-DD')}}`





# Google Adwords

The image shows a screenshot of the Google AdWords interface with several annotations. At the top center is the AdWords logo. The interface includes a dropdown menu for account selection, a 'Customers' button, a date picker, a report type selector, a 'Columns' button, a date range selector, and a checkbox for 'Include Zero Impressions'. Arrows point from text annotations to these specific UI elements.

Select the account authorization to use → Use Existing Account → Jake Butler + Add second AdWords instance

Select the customer(s) or accounts you want to use → Customers: Grow → Customers

Date Picker with various options as well as a custom date range → Adwords Reports → Campaign performance report

Select if you want to use AWQL or the AdWords reports

Select which report/endpoint to use

Select which columns you want to view from the report you've selected → CampaignName × Clicks × Cost × Date × EndDate × → Columns

Select the amount of data to pull in → 30 Days Back

Include dates where there is no recorded data →  Include Zero Impressions



# Google Adwords

**Reports or AWQL:** The Adwords API allows you to use their report endpoints to select relevant columns of data or use AWQL to pull specific data.

**Using AWQL:** The AdWords API is robust, but very particular with what data works together. If using AWQL, make sure to follow their syntax exactly to get the query to work.

**Cost or money data:** In Adwords, this is set up as “[micros](#)” or one million is equivalent to one unit. For any cost data, you’ll need to use Grow’s transform tools to divide by 1000000 to get the amount in the local currency. I.e.  $23443303/1000000 = 23.443303$

**“Error: Invalid field selected”:** Adwords is very particular with what columns and segments work together. If you see this error, it means that the data you’re selecting is not compatible. Refer to their [documentation](#) to verify which columns work together.

**“Include Zero Impressions”:** Some reports will return days where there are no clicks, spend, etc. If you select “Include Zero Impressions” then the dataset will include any date even if there are zero impressions, clicks, spend, etc.



# Facebook Ads



Use Existing Account

Select the account authorization to use → Grow Demo

+

Add second Facebook Ads Instance

Accounts:  
Grow

Select which report level you want to use: Account, Campaign, Ad Set, Ad

Facebook Settings:

Campaign

campaign\_name × clicks ×

Enter a Field or use button

Fields

Select which account(s) you want to use → Select Accounts

Select which fields to access from the selected report level (similar to a metric) → Fields

Apply a filter on a given field → Filters

Apply a breakdown (similar to dimensions) → Breakdowns

Enter a Breakdown or use button

Enter attribution windows or use button

Windows

Apply a given attribution window → Enter attribution windows or use button

Date:  
30 Days Back

Select the date range → 30 Days Back

Breakdown the data by day instead of aggregated →  Get Data By Day



# Facebook Ads - Things to Know

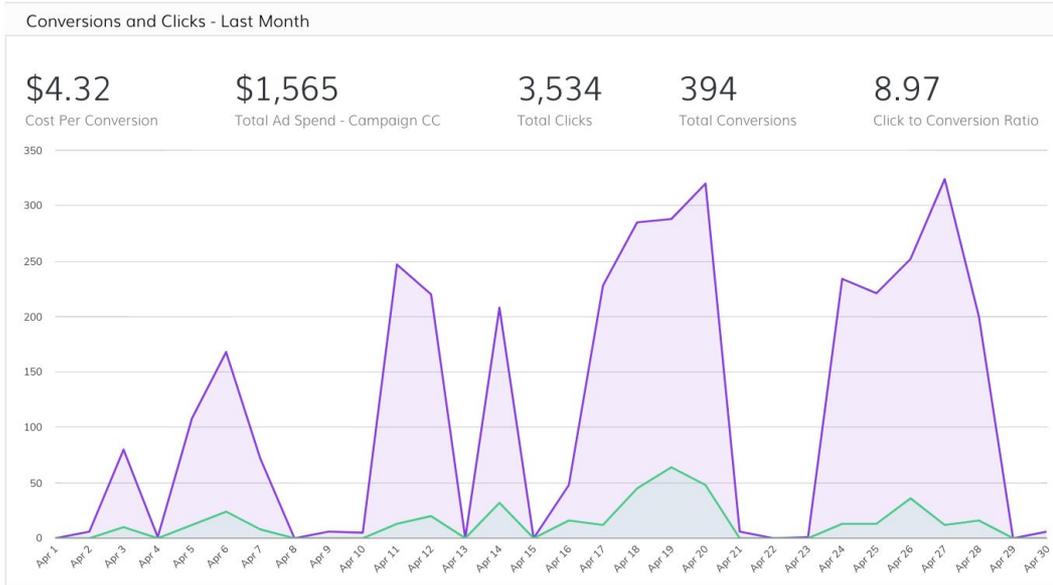
**Reporting Levels Hierarchy:** Facebook ads allows you to pull in data at different reporting levels, these are Account, Campaign, Ad Set, and Ad. Some fields will not appear at certain levels.

**Possible Field Conflicts:** Only fields with a red asterisk are required when you set your Facebook Ads data parameters. There are many optional fields and some of them are incompatible with others.

**Aggregated Data vs Data by Day:** If you don't specify to get the data by day, you will get the aggregated data for the time frame selected. Select "get data by day" to break down the data into individual days instead of aggregated.



# Practical: Google Adwords Metric



- Report: Campaign Ad Performance (Adwords)
- Only data from Campaign CC
- Calculate actual cost/conv.
- Hex value for “blueviolet”
- Hint: Remove any 0s to ensure your Cost/Conv average isn't skewed



# Adwords Metric - Hint 1/2

## Edit New Metric

Metric Title  
Conversions and Clicks - Last Month

CHART SETTINGS

DATA SETTINGS

Metric Description

Data Series

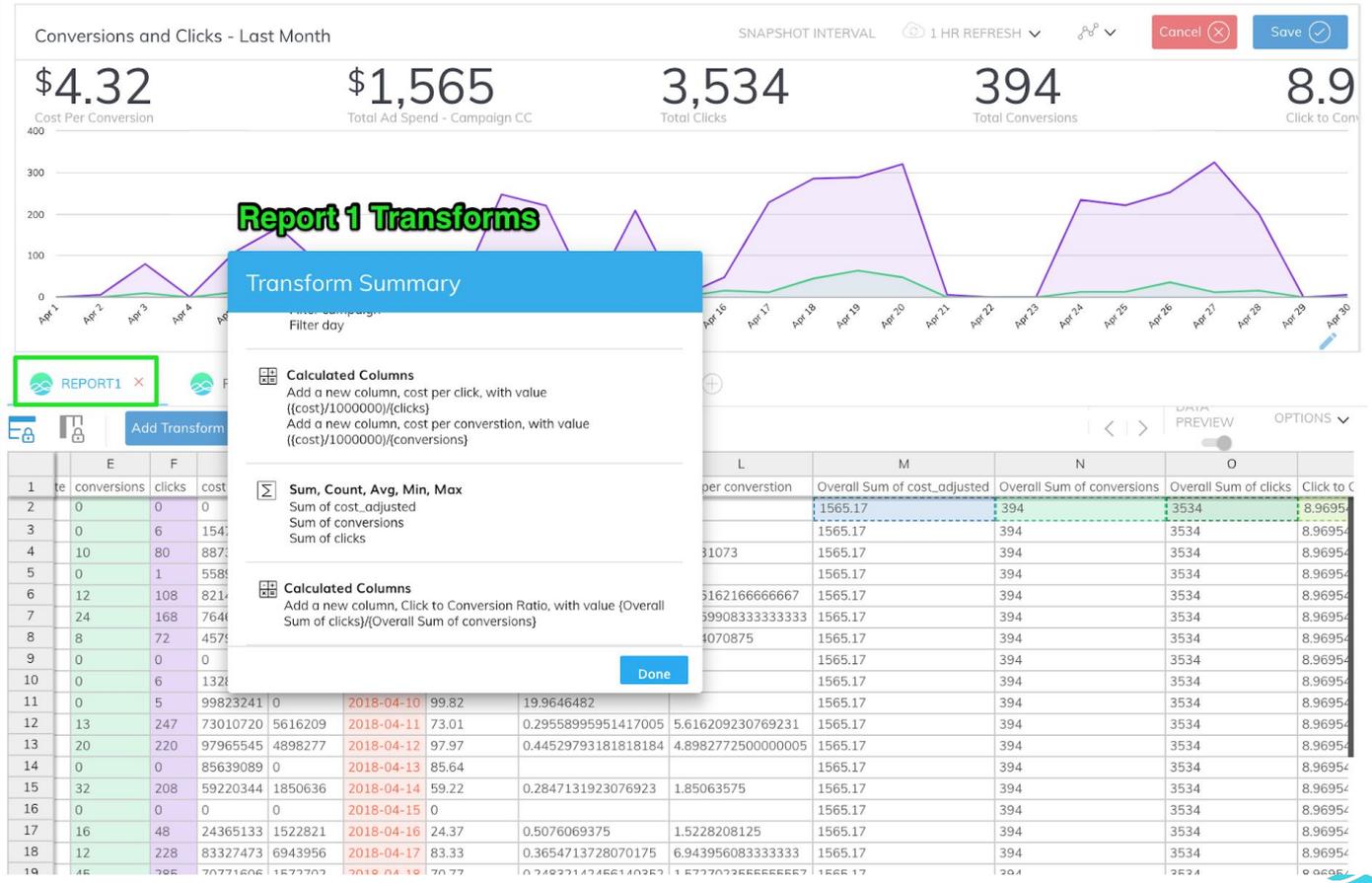
Chart Labels

Key Value

- REPORT2 / M2 Key Value
- REPORT1 / M2 Key Value
- REPORT1 / O2 Key Value
- REPORT1 / N2 Key Value
- REPORT1 / P2 Key Value

Add Value

Goal Line



# Adwords Metric - Hint 2/2

## Edit New Metric

Metric Title  
Conversions and Clicks - Last Month

**CHART SETTINGS** DATA SETTINGS

Metric Description

Data Series

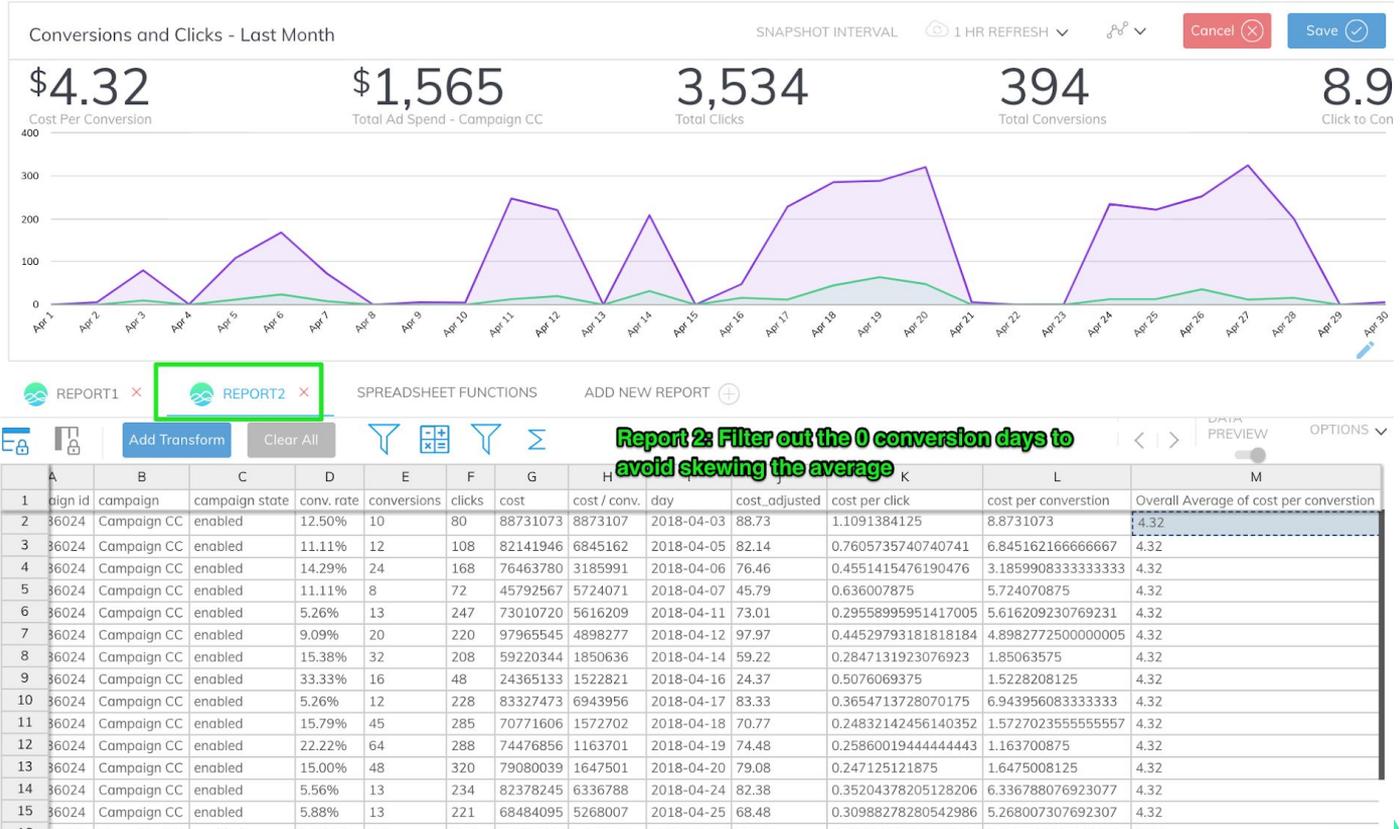
Chart Labels

Key Value

- REPORT2 / M2  Key Value
- REPORT1 / M2  Key Value
- REPORT1 / O2  Key Value
- REPORT1 / N2  Key Value
- REPORT1 / P2  Key Value

**Add Value**

Goal Line



# SOCIAL PLATFORMS

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# Facebook (Organic)



Select the account authorization to use

Use Existing Account

Joshua Dance



Add second Facebook instance

Pages:

Grow - 1401 N 630 E #2200 Orem UT

Select which page(s) you want to use

Select Page(s)

Select which report to use

Facebook Settings:

See Documentation [here](#)

Number of people who engaged with your Page

Select the period you want to view the data by: day, month, etc

Period \*

Day

Date

Year to Date

Select the date range



# Facebook (Organic) - Things to Know

**API Version 1 and Version 2:** Generally the Facebook v2 integration is a more robust integration than V1. They both access the same API, but Grow's Facebook v2 allows you to pull specific data points from the Metric Categories instead of full reports with prescriptive data.

**Current day:** Some Facebook reports don't display to the current day. This is a limitation of the API.

- Demographics about People who like your Page
- Number of People Talking About by City
- Number of People Talking About by Country
- Total People who liked by City
- Total People who liked by Country
- Page Views
- Page Views from users logged into Facebook
- Page Like Sources



# Twitter

## Data Source Connected



Use Existing Account

Select the account authorization to use

goGrow



Add secondary  
Twitter instance

Select which report to use

Total Aggregated Followers



# Twitter - Pro Tips

**Historical data:** Twitter's API does not allow access to historical data. Grow starts tracking data once the Twitter account is connected to Grow. If the Twitter connection is ever deleted from an account, you will lose that any data built up in Grow.

**Last 200 records:** Twitter's API only returns the last 200 records for any of their endpoints; for example, the last 200 tweets, last 200 followers, last 200 mentions, etc.

**3rd party services:** These services offer to return historical data; however, Grow hasn't tested any of them and therefore doesn't endorse any specifically. Clients are free to attempt this type of solution.



# Instagram/Instagram Business

Data Source Connected



Use Existing Account

Select the account authorization to use

Grow

+

Add secondary Instagram instance

Select which report to use

Instagram Settings:  
See [Documentation here](#)  
Select Instagram report

Total Aggregated Followers



# Instagram/Insta Business - Things to Note

- **Historical Data:** Instagram's API does not allow access to historical data. Grow starts tracking data once the Instagram account is connected to Grow. If the connection is ever deleted from an account, you will lose that any data built up in Grow.
- **500 Items API Limit:** Instagram only returns the 500 most recent individual items in itemized reports. When pulling followers, liked posts, or user posts, Instagram only returns up to the most recent 500.
- **Disabled Endpoints:** Following the Cambridge Analytica scandal, Instagram has disabled some of their API endpoints. When you attempt to use *liked posts*, *following*, and *followers* you will get an error message, saying "This endpoint has been retired."



# YouTube

Select the account authorization to use

Use Existing Account



Add second YouTube instance

To view all of your connected Youtube apps [click here](#)

See Youtube Documentation [here](#)

Youtube Settings:

Enter a Metric or use button

Metrics

Select a metric(s)

Enter a Dimension or use button

Dimensions

Select a dimension

Select the date range

Date

Apply a dimension filter

Dimension(s) to filter by - separated by a comma

Apply a dimension to sort by

Max Results

Enter a Max Result I.e. 200, 1000, 5000

Dimension(s) to sort by - separated by a comma



# YouTube - Things to Note

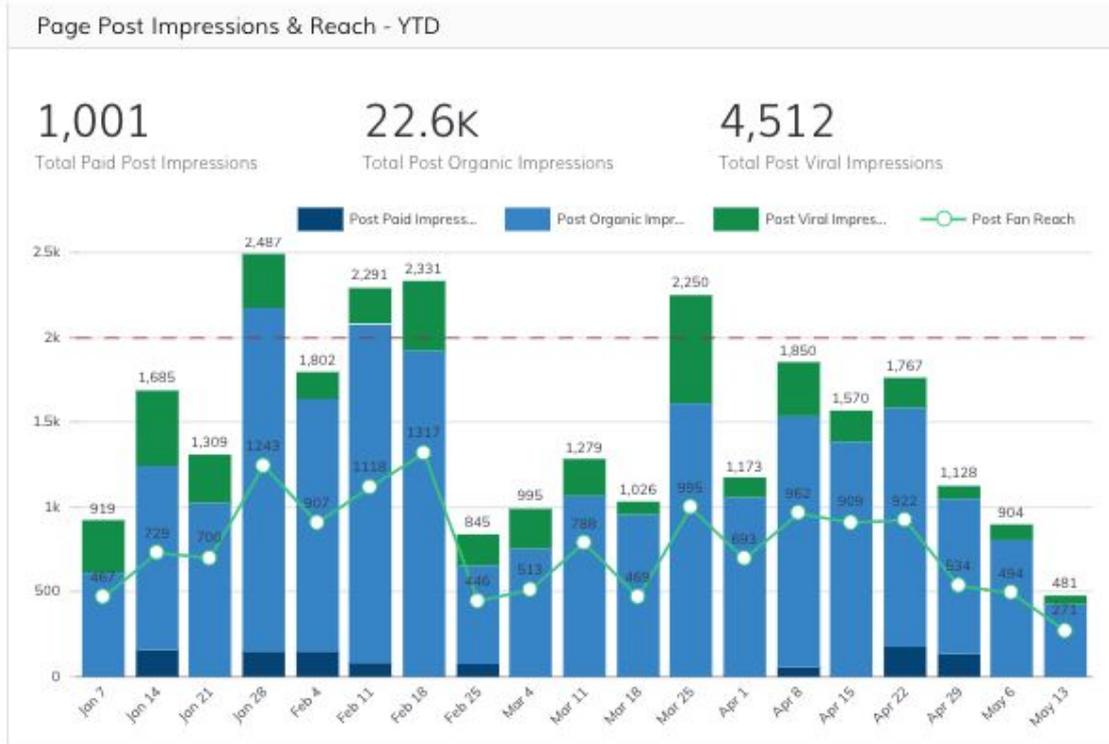
**Dimension and metric compatibility.** Some metrics and dimensions won't work together and will display an error in Grow when used jointly. Reference this YouTube [documentation](#) for any reporting questions.

**Required Fields:** YouTube usually requires an entry into "Max Results" and a dimension to sort by.

**YouTube Reporting:** YouTube has two different APIs. Grow connects to YouTube Analytics, not YouTube Reporting. Refer to [this article](#) for additional documentation.



# Practical: Facebook Metric



- Report: Marketing Post Analytics (FB v2)
- Column & Line Chart (fan reach as the line)
- YTD data
- Goal Line: 2,500
- Use the time shifter tool to shift the data by +5 hours
- Use the Rename Column tool to rename a header



# Facebook Metric - Hint

## Edit New Metric

Metric Title

Page Post Impressions & Reach - YTD

### CHART SETTINGS

### DATA SETTINGS

Metric Description

### Data Series

- REPORT1 / Column E Post Fan Reach
- REPORT1 / Column B Post Paid Impressio
- REPORT1 / Column C Post Organic Impres
- REPORT1 / Column D Post Viral Impressio

Add Data +

Show Legend When Metric is Expanded

Display Legend on Bottom

Start Value Axis at 0

Select series Title from data set

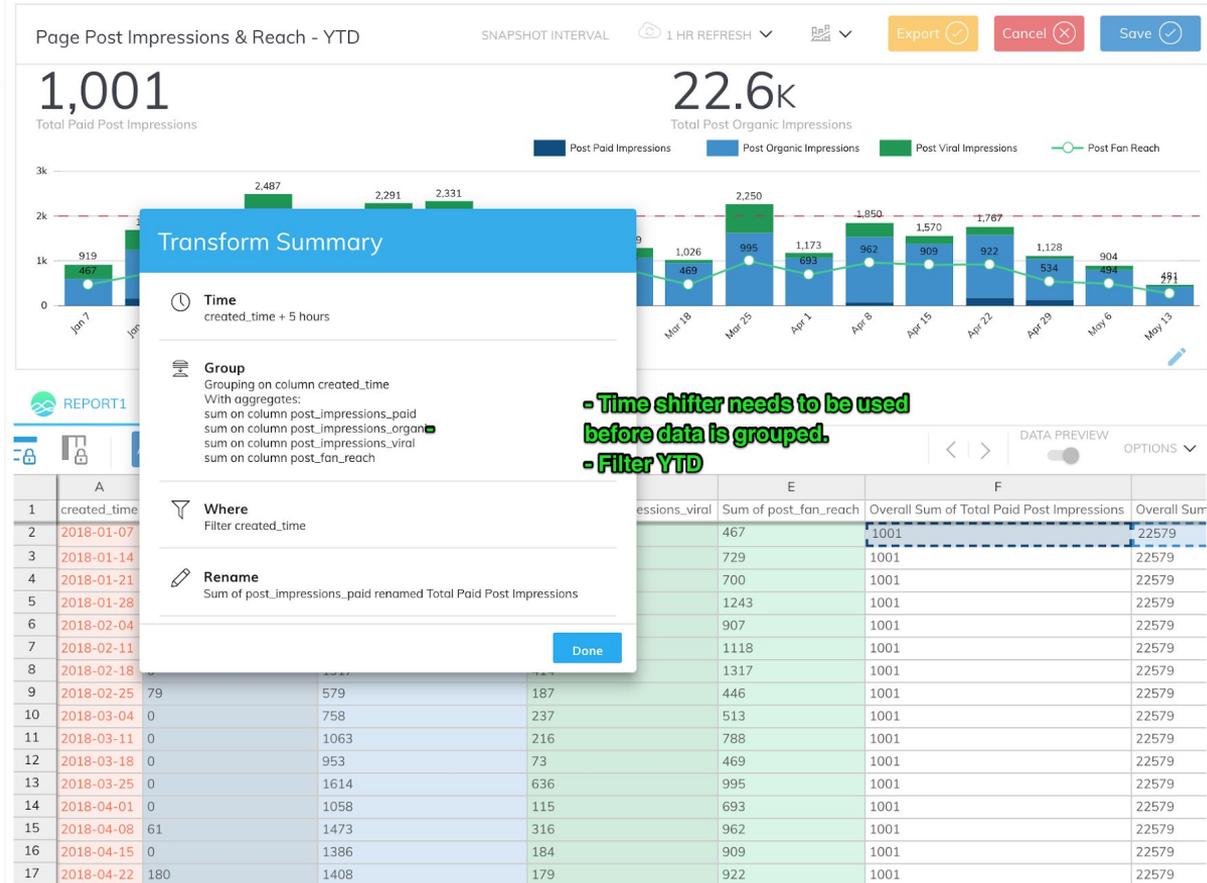
Add TrendLine

Display Totals

Format

Number, Rounded (1,235)

Chart Labels



### Transform Summary

- 🕒 **Time**  
created\_time + 5 hours
- 👤 **Group**  
Grouping on column created\_time  
With aggregates:  
sum on column post\_impressions\_paid  
sum on column post\_impressions\_organ  
sum on column post\_impressions\_viral  
sum on column post\_fan\_reach
- 🔍 **Where**  
Filter created\_time
- ✏️ **Rename**  
Sum of post\_impressions\_paid renamed Total Paid Post Impressions

Done

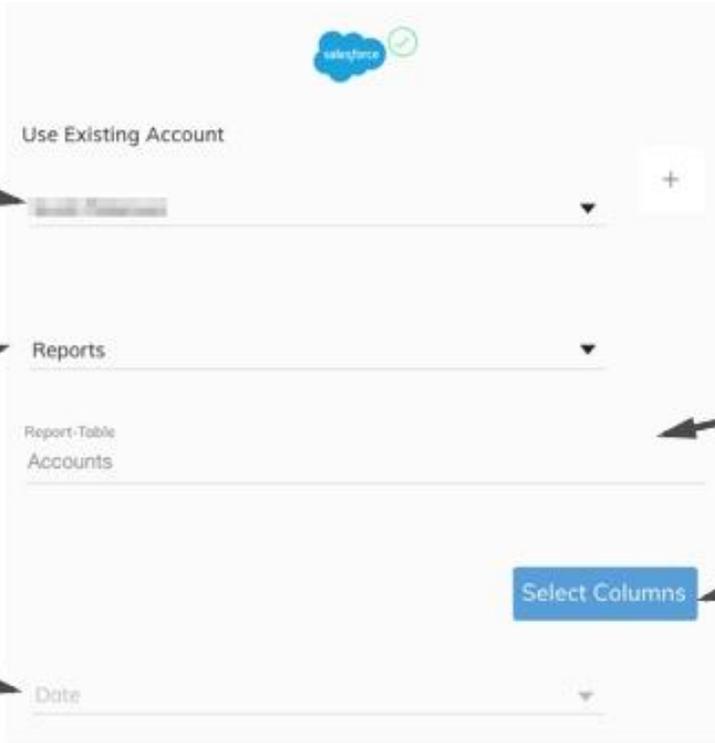
- ⚙️ **Time shifter needs to be used before data is grouped.**
- 🔍 **Filter YTD**



# CRMS

---

# Salesforce (SFDC) - Account Reports



The screenshot shows the Salesforce Account Reports configuration interface. At the top, there is a Salesforce logo and a green checkmark. Below it, the text "Use Existing Account" is displayed. A dropdown menu is open, showing "Sales Instance" as the selected option. To the right of this dropdown is a plus sign (+) button. Below the dropdown menu, the text "Reports" is displayed. A dropdown menu is open, showing "Report-Table" and "Accounts" as options. Below the dropdown menu, the text "Report-Table" and "Accounts" is displayed. Below the dropdown menu, there is a blue button labeled "Select Columns". Below the "Select Columns" button, the text "Date" is displayed. A dropdown menu is open, showing "Date" as the selected option.

Select the account authorization to use

Add secondary Salesforce instance

Select which Standard Salesforce Report (object) to use

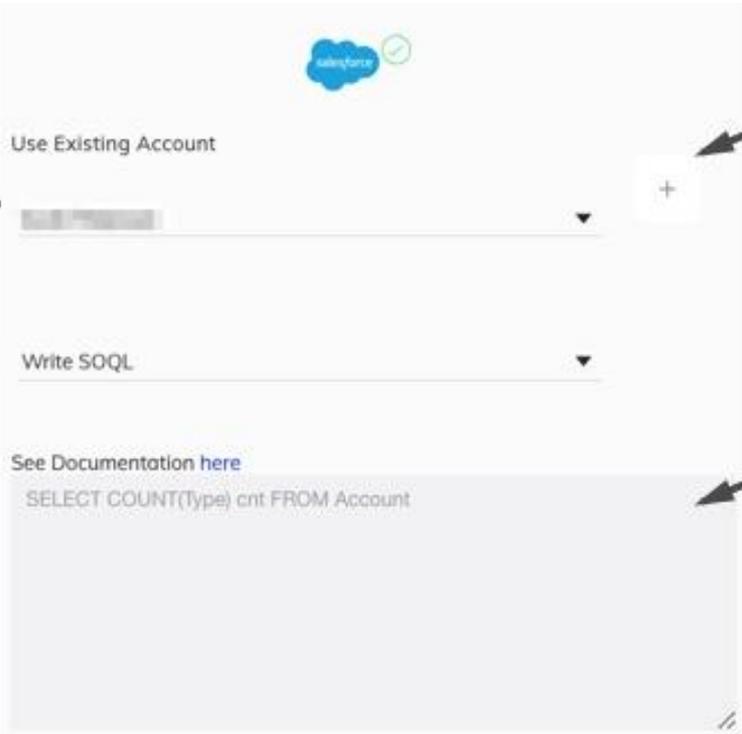
Type to search the report by name or scroll the available list.

Select the date range

Select any relevant columns found in salesforce object



# Salesforce (SFDC) - SOQL



The screenshot shows the Salesforce SOQL interface. At the top, there is a Salesforce logo with a green checkmark. Below it, there are two dropdown menus. The first dropdown is labeled "Use Existing Account" and has a plus sign button to its right. The second dropdown is labeled "Write SOQL". Below the second dropdown, there is a link "See Documentation here" and a text input field containing the SOQL query: "SELECT COUNT(Type) cnt FROM Account".

Select the account authorization to use

Add secondary Salesforce instance

Select to use SOQL to query data

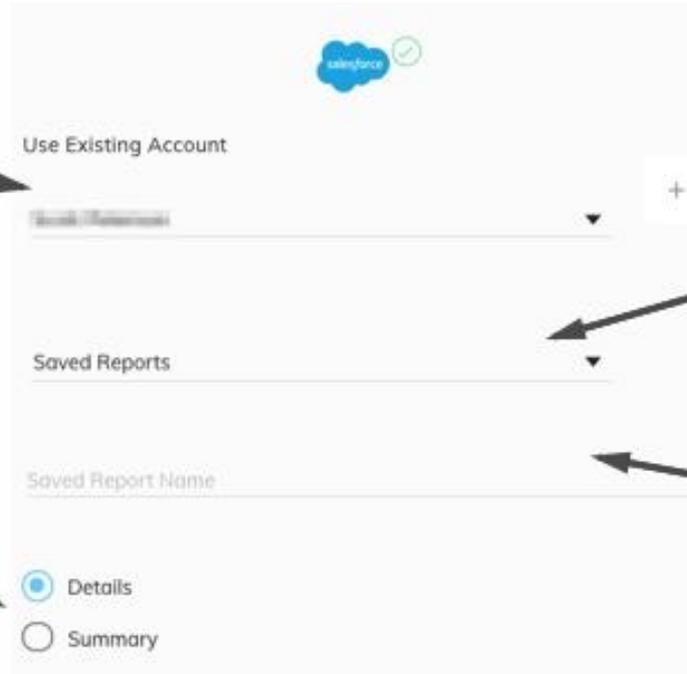
Type in SOQL query

```
SELECT COUNT(Type) cnt FROM Account
```



# Salesforce (SFDC) - Saved Reports

Select the account authorization to use



The screenshot shows the Salesforce interface for Saved Reports. At the top, there is a 'Use Existing Account' section with a dropdown menu and a '+' button. Below this is a 'Saved Reports' section with a dropdown menu and a search input field labeled 'Saved Report Name'. At the bottom, there are two radio buttons: 'Details' (selected) and 'Summary'.

Add secondary Salesforce instance

Select to use data from a report already saved in account

View the report in detail or summary information. Defaults to details.

Type to search for the saved report by name or scroll available the list.



# Salesforce (SFDC) - Things to Note

**Using Saved Reports:** Using saved reports can be really useful if a customer doesn't have a Salesforce admin but are able to use the report builder to get exactly the necessary data. Note that if that report is changed the metrics referencing that report in Grow may break depending on if data was removed or added to that saved report.

**Saved reports must be public:** If you find that a saved report isn't showing up in Grow, it's likely that it is not in the Unified Public Folder. It must be public to be accessible via the API.

**Salesforce Lightning:** If customers use Salesforce Lightning, there is a 2000 row limit on saved reports. Users can use SOQL to write a query and pull data greater than 2000 rows.



# Salesforce (SFDC) - Things to Note

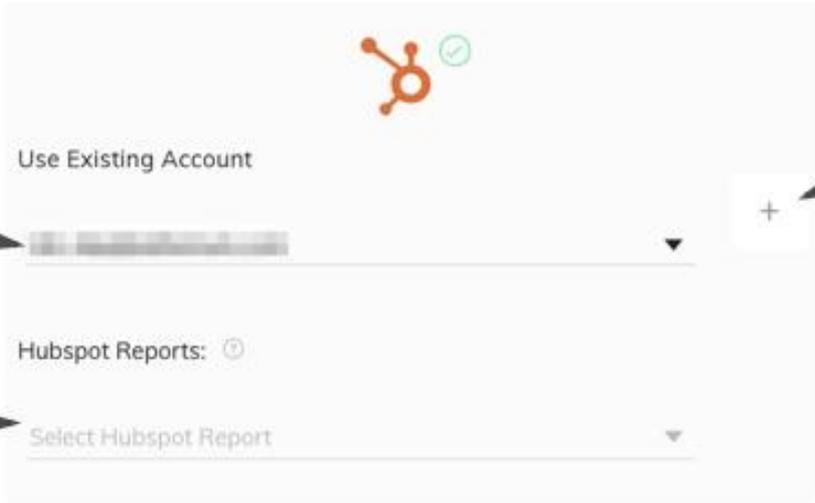
**Salesforce Enterprise Edition:** A customer must have the [Enterprise tier in Salesforce](#) to be able to connect their API to Grow.

**Standard Reports:** Reports are objects or tables set up in your Salesforce account. The tidier your Salesforce data and structure is, the better the data will be from these reports. The data is pulled through as raw data, stripping currencies of any local formatting. This is helpful when saved reports have a data format that is difficult to use in Grow.

**Using SOQL:** If a customer has a Salesforce admin who understands their account schema, this will be valuable to them. Use [www.dataloader.io](http://www.dataloader.io). This platform helps those not familiar with SOQL to build a query using their own custom fields and account information.



# Hubspot



The screenshot shows a Hubspot interface with the following elements and annotations:

- Hubspot Logo:** Located at the top center, featuring the orange Hubspot logo and a green checkmark icon.
- Use Existing Account:** A dropdown menu with a blurred selection. An arrow points to it from the text "Select the account authorization to use".
- Hubspot Reports:** A section with a help icon (ⓘ) and a dropdown menu labeled "Select Hubspot Report". An arrow points to it from the text "Select which report to use".
- Secondary Instance Button:** A white button with a plus sign (+) located to the right of the "Use Existing Account" dropdown. An arrow points to it from the text "Add secondary Hubspot instance".



# Hubspot - Things to Note

**ID numbers for custom fields:** When a customer creates custom fields in their account, the data comes in as IDs. There is no existing endpoint in Hubspot that allows us to indicate what these IDs represent. However, by comparing the data in Grow to the customer account, you can start to identify the custom field ID. We recommend using a spreadsheet to track the IDs and their labels. You can bring this data into Grow and join the IDs to the Hubspot data and then apply needed data transforms.

**Contacts properties:** Every lead in Hubspot is marked as a contact, not a lead. If you want to pull in properties for Hubspot contacts, use the “Get All Contacts” endpoint which will let you select the fields (properties) you want to pull in.

**Revenue in Cents:** Similar to AdWords, some revenue data comes through as the smallest unit for the currency (i.e. cents instead of dollars). Use the calculated column to divide the revenue column by 100 to convert to dollars (or GBP, AUD, CAD, etc.).



# Hubspot - Things to Note

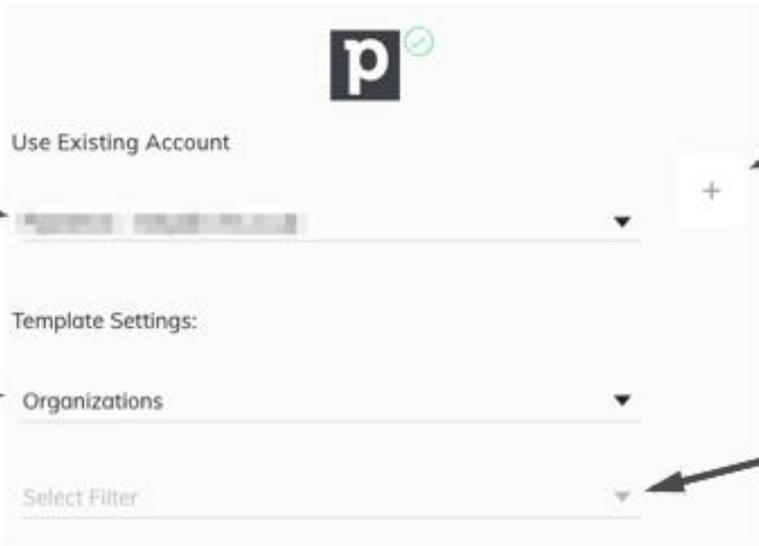
**Combined CRM and Marketing API:** Hubspot combines its CRM and marketing automation services into one platform. If you want access to endpoints from both the CRM and marketing, you'll need to have both types of accounts in Hubspot. Currently, the [marketing endpoints](#) don't have as much business logic built in as the CRM. In our partnership with Hubspot, we're working together to improve those API data endpoints.

**Endpoints requiring admin-level permissions:** Some reports will require that the user connected to Grow is an admin. Most commonly, [this includes marketing endpoints](#) such as campaigns, workflows, and email events.

**Strict rate limits:** Due to Hubspot's [rate limits](#), pulling a lot of Hubspot data into Grow can be slow. Refer to our [section on rate limits](#) for more information.



# Pipedrive



The screenshot shows the Pipedrive account selection interface. At the top right is the Pipedrive logo (a black square with a white 'p' and a green checkmark). Below it, the text "Use Existing Account" is followed by a dropdown menu. An arrow points from the text "Select the account authorization to use" to this dropdown. To the right of the dropdown is a white button with a black plus sign, with an arrow pointing from the text "Add secondary Pipedrive instance" to it. Below the first dropdown is the text "Template Settings:" followed by another dropdown menu. An arrow points from the text "Select which report to use" to this dropdown. Below the second dropdown is the text "Select Filter" followed by a third dropdown menu. An arrow points from the text "Select secondary report filter" to this dropdown.

Select the account authorization to use

Use Existing Account

+

Add secondary Pipedrive instance

Template Settings:

Organizations

Select Filter

Select which report to use

Select secondary report filter



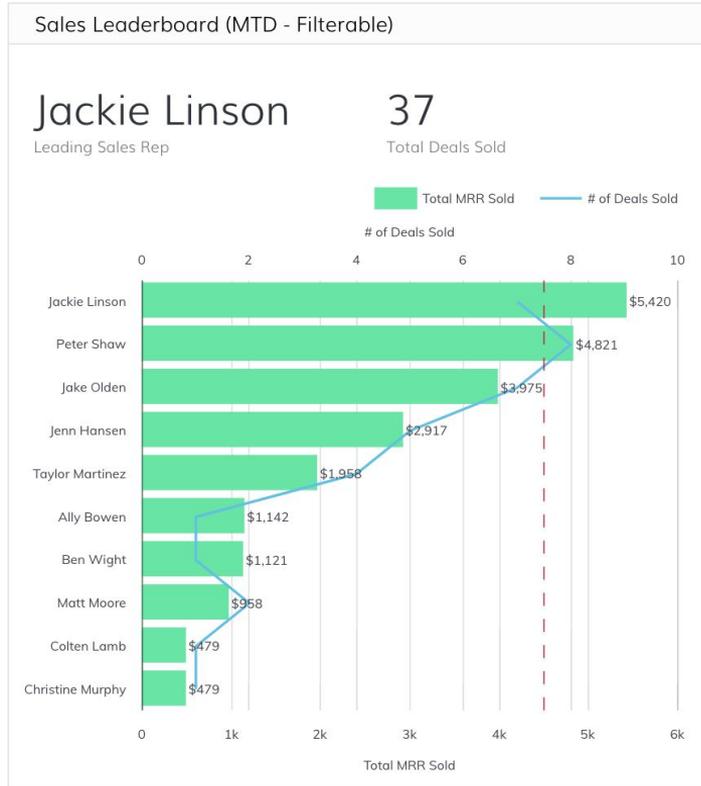
# Pipedrive - Things to Note

**Time in Stage:** In the Deals Report, there is an option to include the 'Time in Stage'. This calculates the precise time spent in each stage for each opportunity. Since this does multiple calculations on each row, selecting this option slows down the report very significantly.

**Notes in the Activity Report:** The activities report includes a column that has the notes associated with each activity. These notes come from the API as HTML which can make them more challenging to work with than plain text. You will need to be creative with SQLite to be able to work with this data output.



# Practical: Salesforce Metric



- Report: Sales Data (Salesforce)
- MTD Sales
- Text Key Value
- Goal: \$4500
- Match visuals and formatting



# Salesforce/CRM Metric - Hint

## Edit New Metric

Metric Title  
Sales Leaderboard (MTD - Filterable)

CHART SETTINGS DATA SETTINGS

Metric Description

Data Series

Chart Labels

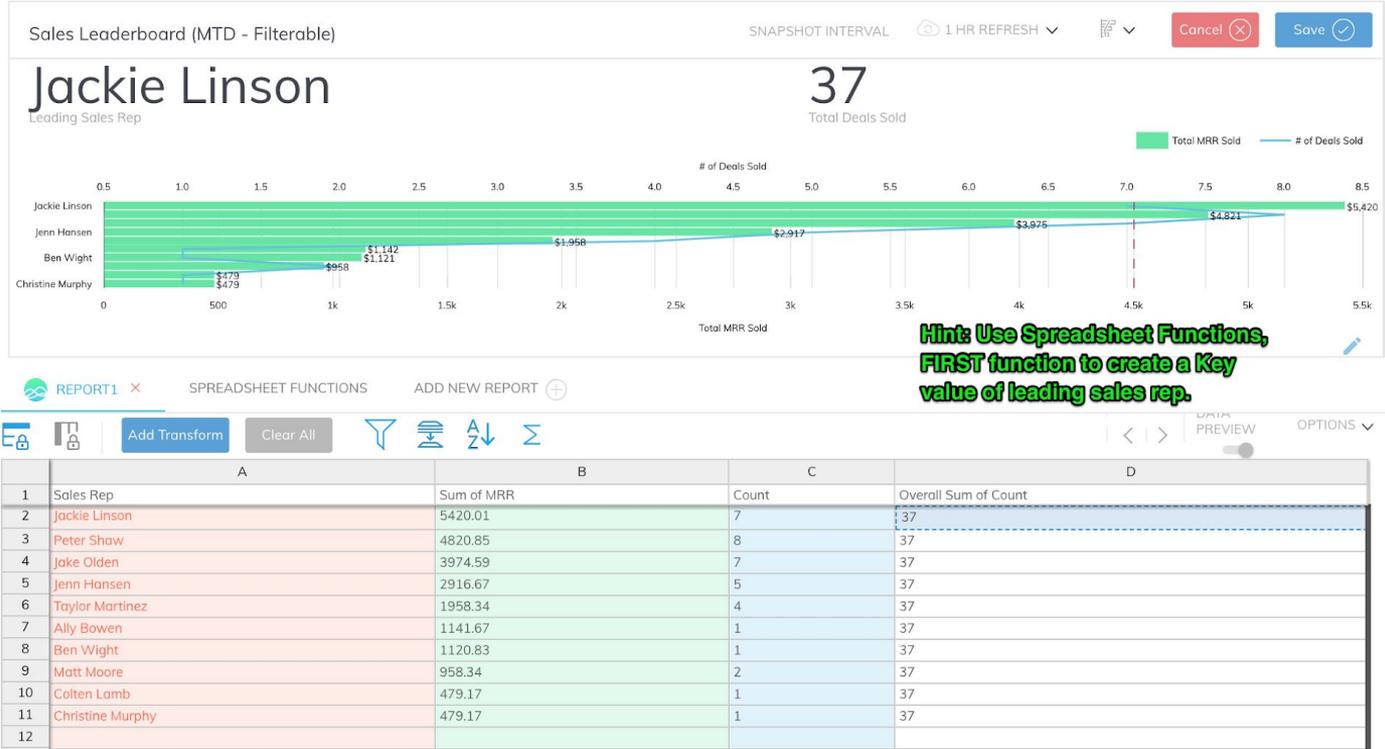
Key Value

SPREADSHEET / B1  Key Value

REPORT1 / D2  Key Value

Add Value

Goal Line



# FINANCIAL PLATFORMS

---

# Quickbooks Online

Select the Account you want to use

Use Existing Account



Add second QBO instance

Quickbooks Online Settings:  
[See Documentation here](#)

Profit And Loss

Select which report to use. This will change the remaining options in the UI. The options for the P&L are similar to other QBO reports.

Select the date range

Date

Select the accounting method (cash or accrual.) Method defaults to cash.

Accounting Method

Summarize data by total, month, day etc.

Summarize Column By

Once you identify the ID, you can filter the report by that customer, vendor, etc.

Filter by Customer

Enter one or more customer ids separated by a comma

Filter by Vendor

Enter one or more vendor ids separated by a comma

Filter by Item

Enter one or more item ids separated by a comma

Rotate the report table. Useful depending on the visualization needed.

Rotate Table Results

Classes:

Select Classes

Select a class or department to filter to view.

Departments:

Select Departments



# Quickbooks Online - Things to Note

**Quickbooks Desktop:** [Quickbooks Desktop](#) is an on premise solution. Clients must be pre-approved in the sales process to use our QBD connector as it requires some manual setup.

**Filtering a QBO Report:** Several of the QBO reports (P&L, Balance Sheet, Accounts Receivable, etc.) allow you to filter based on a customer, vendor, or item ID. View this [help article](#) on how to isolate the relevant IDs in your QBO account.

**Rotating Table Data:** Most QBO reports come in a format where columns are dates or months and the rows are categories or accounts. To be more chart friendly this is typically rotated so that rows are the dates or months. In the UI image above, you can see the option to “rotate table results”.

**Additional Cleanup:** Many QBO reports are built for human eyes, not a BI tool. Because of this they normally include totals, blank rows, or other descriptive type additions. These can normally be removed by using the filter transform.



# Xero

Select the Account you want to use

The screenshot shows the Xero account selection and settings interface. At the top, there is a 'Use Existing Account' dropdown menu with a '+' button to its right. Below this is the 'Xero Settings' section, which includes a link to 'See Documentation here' and a 'Profit and Loss' dropdown menu. Underneath are four filter options: 'Tracking CategoryID 1' with a '1st Category filter' dropdown, 'Tracking OptionID 1' with a '1st Option filter' dropdown, 'Tracking CategoryID 2' with a '2nd Category filter' dropdown, and 'Tracking OptionID 2' with a '2nd Option filter' dropdown. At the bottom, there is a 'Standard Layout' dropdown menu and a 'Date' dropdown menu.

Add second Xero instance

Apply a Tracking Category filter (optional)

Select which report to use. This will change the remaining options in the UI. The options for the P&L are similar to other reports.

Apply a Tracking Option filter (optional)

Defaults to standard layout

Select a date range



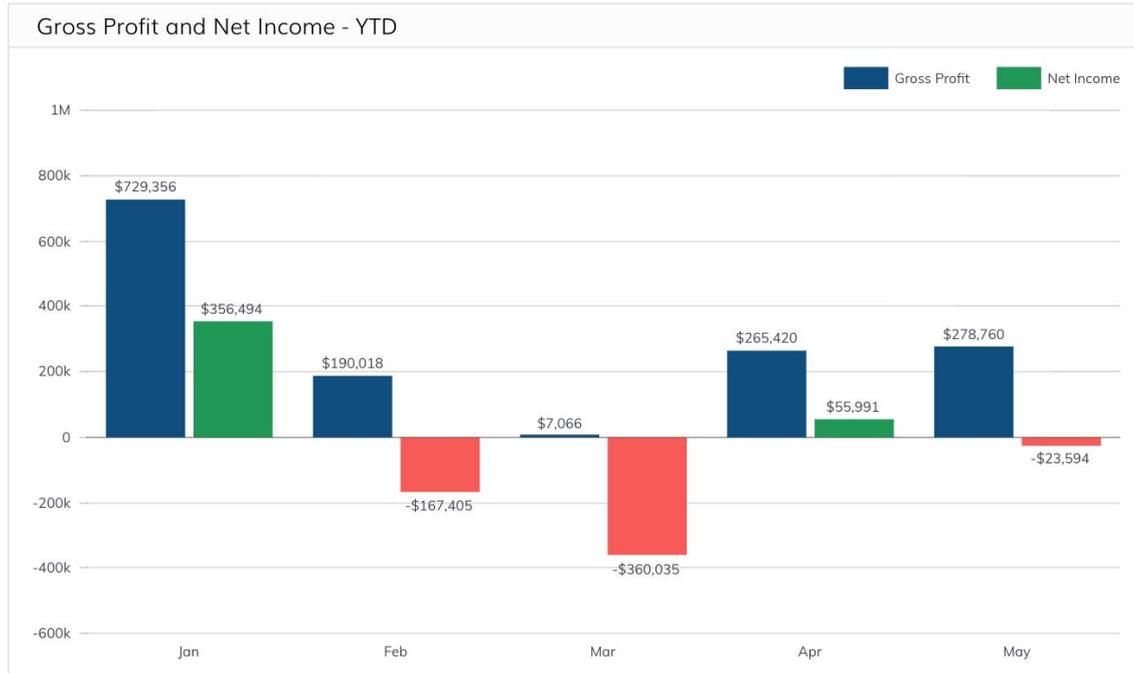
# Xero - Things to Note

**Profit and Loss:** The P&L Report is limited to the last two years of monthly data. Reports from Xero are not more granular than monthly reporting.

**Tracking Categories IDs:** To find the needed tracking category ID to filter by, you can pull the data into Grow as a second report and copy and paste the ID into these fields.



# Practical: Quickbooks Online



- Report: Financial P&L QBO
- Remove Columns: Keep only relevant totals (Total Income, Total COGs, Total Gross Profit, Total Net Income, etc.)
- Data Series: Negative Values Red



# Quickbooks Online Metric - Hint

## Edit New Metric

Metric Title  
Gross Profit and Net Income - YTD

### CHART SETTINGS

### DATA SETTINGS

Metric Description

### Data Series

REPORT1 / Column E

Gross Profit

REPORT1 / Column K

Net Income

Add Data

Show Legend When Metric is Expanded

Display Legend on Bottom

Start Value Axis at 0

Select series Title from data set

Add TrendLine

Enable 2 Value Axes

Chart Labels

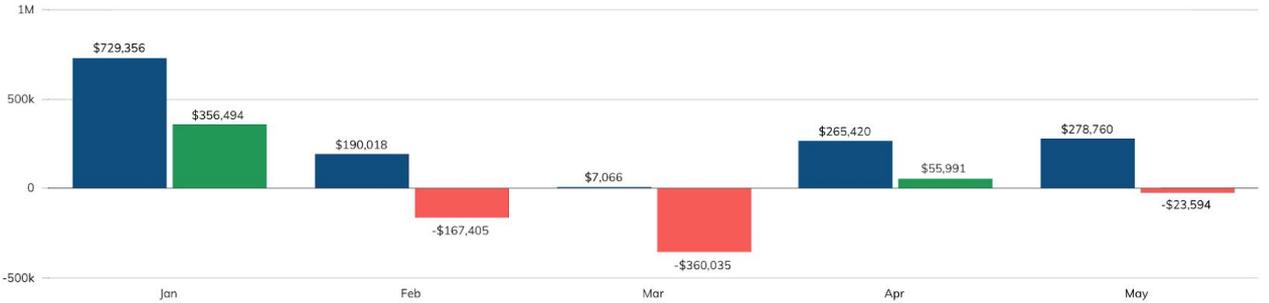
## Gross Profit and Net Income - YTD

SNAPSHOT INTERVAL

1 HR REFRESH

Cancel

Save



REPORT1

SPREADSHEET FUNCTIONS

ADD NEW REPORT



Add Transform

Clear All



DATA PREVIEW

OPTIONS

	D	E	F	G	H	I
1	Net of Goods Sold.Total Cost of Goods Sold	Gross Profit	Expenses.Total Expenses	Net Operating Income	Other Income.Total Other Income	Other Expenses.Total Other Expense
2	251.29	729356.15	386756.21	342599.94	15000	1105.9
3	947.33	190018.28	356292.58	-166274.3	0	1130.21
4	225.41	7065.64	365280.1	-358214.46	0	1820.32
5	010.06	265419.71	208153.76	57265.95	0	1274.6
6	118.54	278760.48	301094.29	-22333.81	0	1260.42
7						
8						
9						
10						



# Practical: Xero/CAC

Customer Acquisition Cost - 2018

**\$201**  
Ave CAC - 2018

**2,305**  
New Customers



- Report: Financial P&L Xero, Sales Data
- Calculated CAC
- Apply filters to the P&L to isolate relevant data

$$\text{CAC} = \frac{\text{Total Cost of Sales \& Marketing}}{\text{Number of Customers Acquired}}$$



# Xero/CAC - Hint

## Edit New Metric

Metric Title

Customer Acquisition Cost - 2018

### CHART SETTINGS

### JOINED REPORT SETTINGS

Metric Description

### Data Series

- REPORT3 / Column E CAC
- REPORT3 / Column D # New Deals

Add Data

Show Legend When Metric is Expanded

Display Legend on Bottom

Start Value Axis at 0

Select series Title from data set

Add TrendLine

Enable 2 Value Axes

Chart Labels

## Customer Acquisition Cost - 2018

SNAPSHOT INTERVAL

1 HR REFRESH

Cancel

Save

\$201

Ave CAC - 2018

2,305

New Customers



REPORT1

REPORT2

REPORT3 (JOIN)

SPREADSHEET FUNCTIONS

ADD NEW REPORT



Add Transform

Clear All



DATA PREVIEW

OPTIONS

**Need to Join data  
Need to Substr the  
date to month in  
order to join**

	A	B	C	D	E	F	G
1	date	Total 02. Sales & Marketing	DateMonth	Count	CAC	Overall Average of CAC	Overall Sum of Count
2	2018-01-31	22755.1	2018-01	203	111.07	201.03	2305
3	2018-02-28	28085.66	2018-02	202	112.65	201.03	2305
4	2018-03-31	30559.22	2018-03	210	133.74	201.03	2305
5	2018-04-30	37673.95	2018-04	249	122.73	201.03	2305
6	2018-05-31	54099.56	2018-05	95	396.57	201.03	2305
7	2018-06-30	39578.57	2018-06	133	406.76	201.03	2305
8	2018-07-31	36960.99	2018-07	175	226.16	201.03	2305
9	2018-08-31	32440.27	2018-08	208	177.7	201.03	2305
10	2018-09-30		2018-09	180	180.22	201.03	2305

# ECOMMERCE PLATFORMS

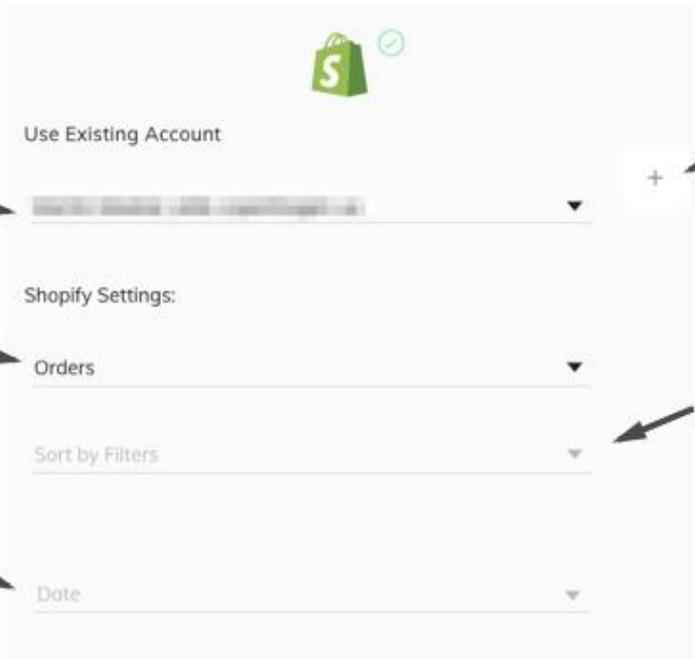
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# Matching Data

- In some ecommerce platforms, internal analytics dashboard may not match what is found in Grow.
- Its common for providers to developed their own logic and definition for certain metrics displayed in their internal dashboard.
- The internal dashboard data may not match, but the exported platform data and Grow data is often the same.
- We work hard to identify the discrepancy!



# Shopify/Shopify+



The screenshot shows a user interface for selecting a Shopify account. At the top, there is a green Shopify logo with a checkmark. Below it, the text "Use Existing Account" is displayed. A dropdown menu shows a selected account name. To the right of this dropdown is a small white button with a plus sign. Below the account selection, there is a section titled "Shopify Settings:". It contains three dropdown menus: "Orders", "Sort by Filters", and "Date".

Select the account authorization to use

Add a second Shopify instance

Select which report to use

Filter by Created At or Updated At (for the Orders, Items sold, and Abandoned Checkout Reports)

Select the date range



# Shopify/Shopify+

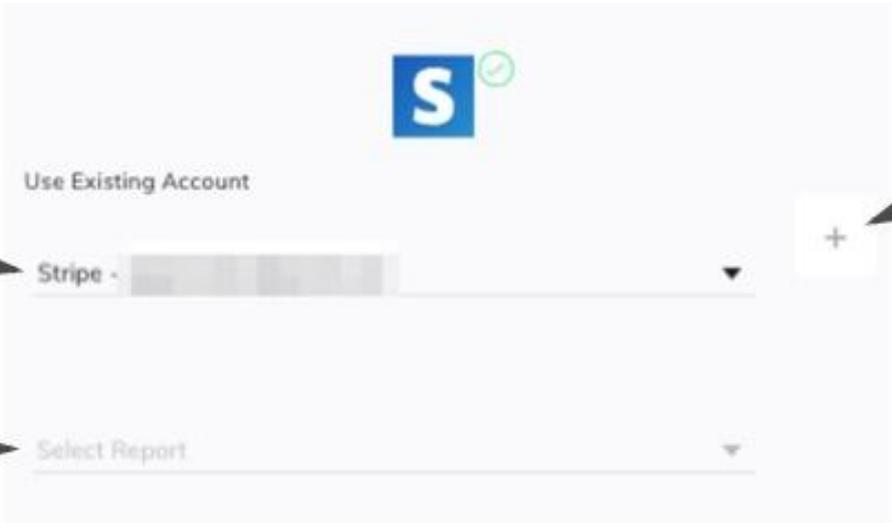
**Salesforce Enterprise Edition:** A customer must have the [Enterprise tier in Salesforce](#) to be able to connect their API to Grow.

**Standard Reports:** Reports are objects or tables set up in your Salesforce account. The tidier your Salesforce data and structure is, the better the data will be from these reports. The data is pulled through as raw data, stripping currencies of any local formatting. This is helpful when saved reports have a data format that is difficult to use in Grow.

**Using SOQL:** If a customer has a Salesforce admin who understands their account schema, this will be valuable to them. Use [www.dataloader.io](http://www.dataloader.io). This platform helps those not familiar with SOQL to build a query using their own custom fields and account information.



# Stripe



The screenshot shows a configuration interface for Stripe. At the top center is the Stripe logo (a blue square with a white 'S' and a green checkmark). Below the logo, the text "Use Existing Account" is displayed. Underneath, there is a dropdown menu with the text "Stripe -" followed by a blurred grey area and a downward arrow. To the right of this dropdown is a white square button with a black plus sign. Below the dropdown menu is another dropdown menu with the text "Select Report" and a downward arrow. Three annotations with arrows point to these elements: "Select the account authorization to use" points to the "Stripe -" dropdown; "Select which report to use" points to the "Select Report" dropdown; and "Add secondary Stripe instance" points to the plus sign button.

Select the account authorization to use

Select which report to use

Add secondary Stripe instance



# Stripe - Things to Note

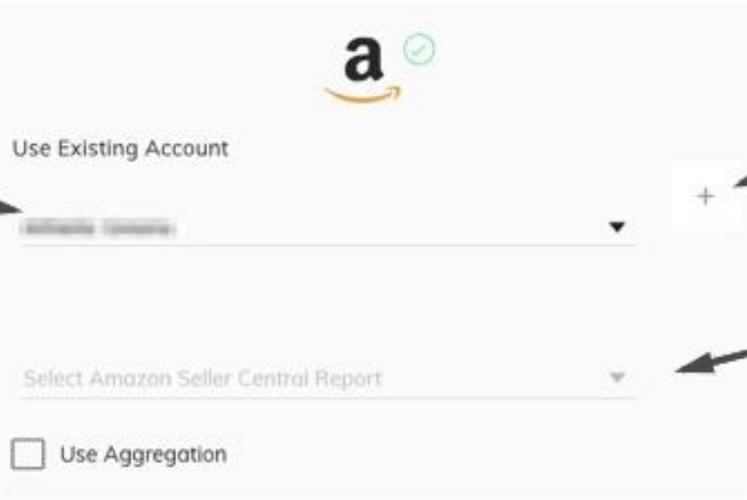
**Currencies:** Stripe supports a large number currencies, including zero-decimal currencies. Stripe will always provide the amount in the smallest common currency unit (i.e. for USD or EUR, 100 cents instead of \$1.00). However, for zero-decimal currencies (i.e. JPY, Japanese Yen), the smallest currency is the regular denomination (¥1 for 1 Yen).

**Showing Currencies in Larger Units:** To show currency values in larger units, you will need to divide your data by 100 (for USD, GBP, etc). This can be done using the calculated column transformation.

**Calculating Client Churn or Cancelled Subscriptions:** When a customer cancels or changes their current subscription in Stripe, a new line is created for the new subscription type. For example, if Customer A wanted to be downgraded from a Gold Subscription to a Silver Subscription, Stripe's API deletes the record of the Gold Sub and generates a new line for the Silver. It is therefore difficult to calculate churn or downgrades in subscriptions. If your client is requesting this, we'll connect you to one of our ecommerce specialists for training.



# Amazon Seller Central



The screenshot shows the Amazon Seller Central interface with the following elements and annotations:

- Amazon Logo:** Located at the top center of the interface.
- Use Existing Account:** A dropdown menu with a plus sign on the right. An arrow points to it with the text "Select the account authorization to use".
- Select Amazon Seller Central Report:** A dropdown menu with a plus sign on the right. An arrow points to it with the text "Select which report to use".
- Use Aggregation:** A checkbox with the text "Use Aggregation" next to it. An arrow points to it with the text "Select to aggregate the data".
- Secondary Instance Button:** A plus sign button on the right side of the interface. An arrow points to it with the text "Add secondary Amazon Seller Central instance".



# Amazon Seller Central - Things to Note

**30 Days of Data:** ASC only returns 30 days of data at a time in their orders endpoint. We can work around this by building a dataset in Grow of their data.

**Throttling Limits:** After an API request hits a certain amount of data, the request will be limited or throttled. This means the data load time will slow down significantly. The only solution is to limit the amount of data requested. You can [read more here](#).

**Request Report:** In the report list, there is an option to select “request report,” which will show you additional reports available on the ASC API.

**Use Aggregation:** When pulling in data you have the option to “use aggregation.” This means that the data is ordered by the date and time that it was updated. It affects the Orders by Order Date Report.

**Matching Sales Numbers:** As with Shopify and Shopify+, there are data matching discrepancies between the API data and what a customer will see in the sales dashboard within ASC. See this [forum discussion](#) on their site for more info. We have found that the exports from ASC match exactly to the API data. This means that the client can define their metrics as they prefer and not rely on the unknown definitions provided by ASC.

**Tips on Matching Sales Number:** Be sure to use the Orders by Last Order Update Report, then use the custom date interpolator to adjust for the customer's time zone.



# Practical: Shopify Metric #1



- Report: Ecommerce Data (Shopify)
- US Map
- Key value showing total cancelled orders



# Shopify Metric #1 - Hint

## Edit New Metric

Metric Title

Location of Orders, Last 30 Days

### CHART SETTINGS

### DATA SETTINGS

Metric Description

Region ID Selection

Data Series

Key Value

Filterable Columns



REPORT1



REPORT2

SPREADSHEET FUNCTIONS

ADD NEW REPORT



Add Transform

Clear All



DATA PREVIEW



OPTIONS

	A	B	C	D	E
1	shipping_address.province	Count	Sum of total_price_usd	Overall Sum of Count	Overall Sum of Sum of total_price_usd
2	New York	417	24793.73	5632	318227.36
3	Ontario	25	1942.04	5632	318227.36
4	Texas	330	17511.79	5632	318227.36
5	Florida	350	18890.26	5632	318227.36
6	Ohio	164	8952.34	5632	318227.36
7	District of Columbia	17	677.37	5632	318227.36
8	Massachusetts	124	6862.16	5632	318227.36
9	Indiana	88	4850.77	5632	318227.36
10	Delaware	204	11670.70	5632	318227.36

- Second Report to count the total cancelled orders
- Make sure to filter out the cancelled orders from the sales report



# Stored Data Sets

**Enable for the account:** Chat in on our site or ask your PSM to enable it for your customer.

**User Permissions:** Any user who should be able to build and manage data sets need to have that permission enabled for their user.

**Share Data Connection:** If you have users who don't need to create new datasets, but just to build from them, you just need to ensure that the data source connection is shared with them. This can be done under Settings > Data Sources > Share Connection (Icon)

**Building a Stored Data Set:** Once the permissions have been granted, you can build a new data set when you're in the metric builder. Here are [detailed instructions](#).

**Creating New Metric:** To create a new metric from a saved data source, you just need to Add New Metric > Stored Datasets > Custom Metric > Select Dataset > Connect and then build from that data as you would a regular metric.



# Practical: Shopify Metric #2

Cancellation Summary, Last 30 Days

45 Fraud Cancellations      7 Customer Cancellations

Filter Results...

Order Number	Cancelled Date	Processed Date	Total Price	Financial Status	Cancel Reason	State
111496	2018-03-28	3/28/18	\$124	refunded	fraud	Massachusetts
111498	2018-03-28	3/28/18	\$146	refunded	fraud	Massachusetts
237898	2018-04-26	4/26/18	\$175	refunded	fraud	Florida
237976	2018-04-27	4/26/18	\$140	refunded	fraud	New York
237994	2018-04-27	4/26/18	\$32	refunded	fraud	New York
238015	2018-04-27	4/27/18	\$257	refunded	fraud	Florida
237723	2018-04-25	4/25/18	\$105	refunded	fraud	Tennessee
237737	2018-04-25	4/25/18	\$31	refunded	fraud	Maryland
237772	2018-04-26	4/25/18	\$161	refunded	fraud	Maryland
237818	2018-04-26	4/25/18	\$125	refunded	fraud	New York
237134	2018-04-24	4/21/18	\$10	refunded	customer	California
236987	2018-04-20	4/20/18	\$135	refunded	fraud	Arizona
236990	2018-04-20	4/20/18	\$126	refunded	fraud	Arizona
236993	2018-04-20	4/20/18	\$98	refunded	fraud	Arizona

- Report: Ecommerce Data (Shopify)
- Table Chart
- Cancellation Summary
- Include table filter



# Shopify Metric #2 - Hint

## > Edit Metric

Metric Title

Location of Orders, Last 30 Days

### CHART SETTINGS

### DATA SETTINGS

Metric Description

### Data Series

- REPORT1 / Column U Order Number
- REPORT1 / Column X Cancelled Date
- REPORT1 / Column D Processed Date
- REPORT1 / Column T Total Price
- REPORT1 / Column L Financial Status
- REPORT1 / Column S Cancel Reason
- REPORT1 / Column V State

Add Data

Select series Title from data set

Enable filter

Label Size

Location of Orders, Last 30 Days

SNAPSHOT INTERVAL

1 HR REFRESH

Cancel

Save

45

Fraud Cancellations

7

Customer Cancellations

Click to filter

Order Number	Cancelled Date	Processed Date	Total Price	Financial Status	Cancel Reason	State
111496	2018-03-28	3/28/18	\$124	refunded	fraud	Massachusetts
111498	2018-03-28	3/28/18	\$146	refunded	fraud	Massachusetts
237898	2018-04-26	4/26/18	\$175	refunded	fraud	Florida
237976	2018-04-27	4/26/18	\$140	refunded	fraud	New York
237994	2018-04-27	4/26/18	\$32	refunded	fraud	New York
238015	2018-04-27	4/27/18	\$257	refunded	fraud	Florida
237723	2018-04-25	4/25/18	\$105	refunded	fraud	Tennessee



REPORT1



REPORT2

SPREADSHEET FUNCTIONS

ADD NEW REPORT



Add Transform

Clear All



DATA PREVIEW

OPTIONS

	A	B	C	D	E	F	G	H	I	J	K	
1	closed_at_date	created at date	updated at date	processed at	gateway	total_price	subtotal_price	total_weight	total_tax	taxes_included	currency	financi
2	3/28/18	3/28/18	3/28/18	3/28/18	stripe	123.8	123.8	680	0		USD	refund
3	3/28/18	3/28/18	3/28/18	3/28/18	stripe	175.18	148.75	1921	0		USD	refund
4	4/26/18	4/26/18	4/26/18	4/26/18	stripe	175.18	148.75	1921	0		USD	refund
5	4/27/18	4/26/18	4/27/18	4/26/18	stripe	175.18	148.75	1921	0		USD	refund
6	4/27/18	4/26/18	4/27/18	4/26/18	stripe	31.42	219.8	3827	0		USD	refund
7	4/27/18	4/27/18	4/27/18	4/27/18	stripe	257.01	219.8	3827	0		USD	refund
8	4/25/18	4/25/18	4/25/18	4/25/18	stripe	104.85	104.85	286	0		USD	refund
9	4/25/18	4/25/18	4/25/18	4/25/18	paypal	31.42	26.96	422	0		USD	refund
10	4/26/18	4/25/18	4/26/18	4/25/18	stripe	161.23	134.8	2084	0		USD	refund

Report 2 Groups by Cancel Reason to Identify the Fraud vs Customer cancellations



# ADDITIONAL FEATURES



DAY THREE

# Dashboard

The dashboard displays several key metrics and charts:

- Customer Acquisition:** Inbound Leads & Site Traffic. 624 (+29%) leads this week vs last week.
- Demos Set & Demos Held:** 74% YTD Demo Set to Given Percentage.
- MTD MRR Sales Leaderboard & Quota:** 88.7k (+11%) Total New MRR vs 100k Goal.

Annotations and features shown:

- Dashboard Manager:** Located on the left sidebar, listing various dashboards like Customer Acquisition, Marketing, and Filter & Drill.
- Grow Dashboard:** The main dashboard title.
- Metric:** Points to the 'Demos Set & Demos Held' chart.
- Click to enter explore mode:** Points to the top right of the 'Demos Set & Demos Held' chart.
- Metric Action Menu:** A dropdown menu for the 'Demos Set & Demos Held' metric, including options like Edit Metric, Copy Metric, Move Metric, Share Metric, Export Metric, and Delete Metric.
- Click to add new metric:** Points to the '+ Add Metric' button in the top right.
- Manage dashboard users:** Points to the user profile 'Steph Johnson' in the top right.
- Full screen mode:** Points to the full screen icon in the top right.
- Sharing options:** Points to the share icon in the top right.
- Dashboard Action Menu:** A menu on the right side containing options like Dynamic Dashboard Filters, Dashboard Settings, Generate PDF, Add Textbar Separator, Add Note, Auto Organize Metrics, Refresh, Help, and Delete.



# Expanded View

The screenshot displays a dashboard interface for 'Sales YTD' with a total sales value of \$125.55M. The chart shows 'Count' (blue bars) and 'Revenue' (green line) over time from Jan 1 to Mar 26. Annotations point to various interactive elements:

- Explore Filters**: Points to the filter icon in the top left.
- Metric Info**: Points to the 'i' icon in the top left.
- History/Snapshots**: Points to the refresh icon in the top left.
- Click on legend to hide data series**: Points to the legend in the top right of the chart area.
- Toggle between chart view and tabular view**: Points to the view toggle icons in the top right.
- Click to enter edit mode**: Points to the edit icon in the top right.
- Set filters on available data in the metric**: Points to the 'Chart Filters' panel on the left, which lists columns like Opportunity ID, Amount, Sales Rep, etc.
- Toggle between various date grouping**: Points to the 'Date Grouping' section with options for Day (D), Week (W), Month (M), and Quarter (Q).
- Toggle data between various chart types**: Points to the 'Chart Types' section, currently set to 'Column + Line Chart'.
- Remove filters**: Points to the 'Reset' button at the bottom of the filter panel.
- Save metric with applied filters as a new metric**: Points to the 'Save As New Metric' button at the bottom of the filter panel.
- Click and drag to zoom into period of a metric**: Points to the chart area.
- Click to toggle between metrics on dashboard**: Points to the metric selection buttons on the right side of the dashboard.

Date	Count	Revenue
Jan 1	1.35k	7.5M
Jan 8	1.85k	10.5M
Jan 15	1.55k	8.5M
Jan 22	1.95k	10.5M
Jan 29	2.05k	11.5M
Feb 5	2.25k	12.5M
Feb 12	1.85k	10.5M
Feb 19	1.85k	11.5M
Feb 26	1.55k	8.5M
Mar 5	1.95k	10.5M
Mar 12	1.65k	8.5M
Mar 19	1.85k	10.5M
Mar 26	1.35k	7.5M



# Filter & Drill - Things to Note

- Set up filterable columns in the metric builder
  - API → SQL transforms → Filter button in Edit Metric → What is left is filterable.
- If working with multiple data sets in a metric, you have to join the data together to set the filterable columns
- You can't drill into the data behind a pivot. This is due to working with two dimensions and an aggregated value between them.
- Filters are at the metric not dashboard level. As you toggle between metrics you have to reapply any filters you wish to see.
- Drill down shows one data layer below the visualization and displays the raw data found in any column selected as a filterable column.



# TV Mode



Toggle between black/white background

Click the play button to set the dashboard rotation.



# Account Settings

- Users
- Dashboards
- Datasets
- Data Sources
- Metrics
- Reports
- User Settings
- Company Info
- Billing

The screenshot shows the GROW.com account settings interface. The top navigation bar includes a close button (X) and the GROW.com logo. A left sidebar menu lists various settings categories: Users (highlighted), Dashboards, Datasets, Data Sources, Metrics, Reports, User Settings, Company Info, and Billing. The main content area is titled 'Josh Reynolds' and features a circular profile picture with the initials 'JR'. Below the profile picture are input fields for 'First Name' (containing 'Josh'), 'Last Name' (containing 'Reynolds'), and 'Email' (containing 'josh+1@grow.com'). There are two buttons: 'SEND RESET PASSWORD LINK' and 'DELETE USER'. A 'User Permissions' section at the bottom lists four permissions with checkboxes: 'Manage Users (All Permissions)' (checked), 'Manage Company Info' (checked), 'View Billing Info' (checked), and 'Save and Manage Datasets' (unchecked).



# Branded Accounts

We'll rely on you to collect the following assets and email to your PSM for set up.

- **Logo:** Used in the Grow app, in the header above each dashboard. The file must be at least 250 pixels in height and a .jpg or .png file.
- **Background Image:** This image is used as the background of the customized login page. The image must be at least 1600 x 900 pixels and either a .jpg or .png file.
- **Domain:** This can be a sub domain or a unique domain. The A Record for that domain or subdomain must be pointed to 52.0.63.147 before the set up can be finalized.  
Sub: analytics.yourdomain.com  
Full: yourdomain.com
- **Login Text (Sign in to "\_\_\_\_\_"):** This is generally the company name. For page naming convention we cannot change the "Sign in to" text.
- **Favicon (Optional):** Can be .ico, .png, or a .jpg file type.



# Out of Partner Scope - Templating Dashboards

If a client is planning to template a dashboard, this setup must be done by a Grow CS rep. This customer requirement is discussed and vetted in the sales process. Things to consider:

- In order to template a dashboard, each metric must have a unique identifier that will change between each dashboard version. This is usually an data source account ID.
- Once a template is created, it cannot be edited. If a client request changes to any data or visualization on metric, they will need to make those changes one at a time, or Grow will have to recreate the template and then go through the process again of deleting and replacing the dashboards.
- Ideally the initial dashboard would be as close to complete as possible.



# Out of Partner Scope - Custom REST Connections

Using a Custom REST connection to access data is out of scope from the Grow Customer Success team. If a partner wants to pursue this route, here are some expectations to set:

- You'll need a developer or some very technical individual to set it up. A nontechnical person will most likely not be able to understand nuanced API documentation.
- It takes time and testing to verify the connection.
- The Grow Custom REST connector only supports APIs requiring a basic or OAuth protocol
- The connector doesn't support any pagination set up by the API. It can only pull in one page of results.

Our chat support can answer some basic troubleshooting questions.



# SQLITE



DAY THREE

SQLite: <https://www.udemy.com/sql-for-newbs/>

SELECT

FROM

WHERE

GROUP BY

ORDER BY

SELECT

FROM

[LEFT] JOIN

WHERE

GROUP BY

HAVING

ORDER BY

LIMIT



# SQLite Date Filtering

DATE()

JULIANDAY()

STRFTIME()

[https://www.sqlite.org/lang\\_datefunc.html](https://www.sqlite.org/lang_datefunc.html)



# SQLite: DATE()

**WHERE** `dateColumn` [operator] **DATE**('modifier 1', 'modifier 2', etc...)

- >
- <
- >=
- <=
- <>, !=
- IN()
- BETWEEN
- +/- days
- +/- hours
- +/- minutes
- +/- seconds
- +/- months
- +/- years
- now
- start of month
- start of year
- start of day
- weekday N



## SQLite: JULIANDAY()

Julian Day is the days passed since Noon, Greenwich, -4714-11-24

### Example:

**JULIANDAY('now') - JULIANDAY(`enrollmentDate`)**

**(2,299,159) - (2,299,113) = 46**



# SQLite: STRFTIME()

STRFTIME('operator', `dateColumn`)

%d day of month: 00  
%f fractional seconds: SS.SSS  
%H hour: 00-24  
%j day of year: 001-366  
%J Julian day number  
%m month: 01-12  
%M minute: 00-59  
%s seconds since 1970-01-01  
%S seconds: 00-59  
%w day of week 0-6 with Sunday==0  
%W week of year: 00-53  
%Y year: 0000-9999



# SQLite CASE statement (first type)

```
SELECT
```

```
    CASE `columnName` WHEN 'X' THEN 'Y' [ELSE 'Z'] END
```

```
FROM report1
```

<http://www.sqlitetutorial.net/sqlite-case/>



## SQLite CASE statement (second type)

SELECT

**CASE WHEN 'X' THEN 'Y' [ELSE 'Z'] END AS 'newColumn',**

FROM report1



# Practical: SQLite Metric

Deal Type - YTD



914

Total Deals Sold YTD

106

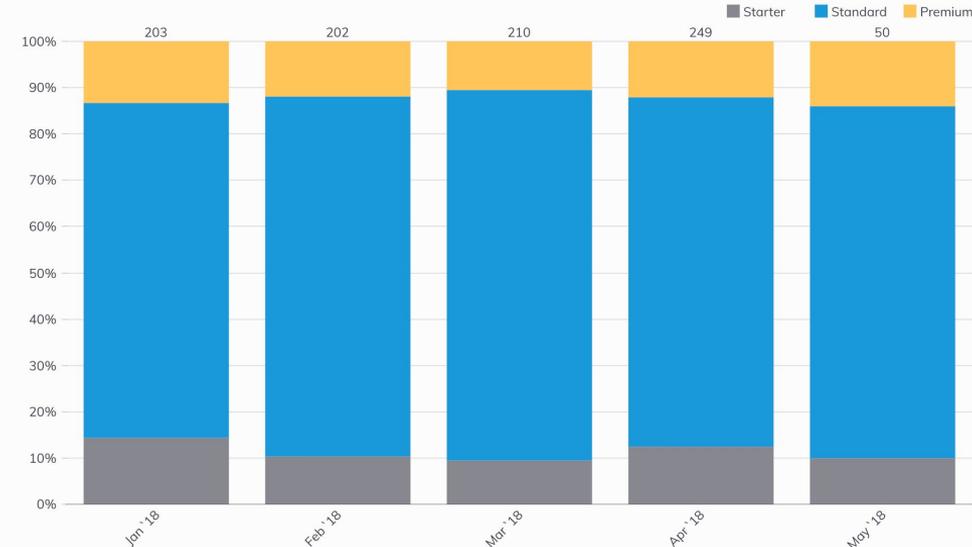
Total Starter

698

Total Standard

110

Total Premium



- Report: Sales Data (Salesforce)
- SQL: Create new categories based on ACV.
  - Starter: < 4,500
  - Standard: Between 4,500 and 9,999
  - Professional: >= 10,000
  - Filter by current year on the close date



# SQLite Metric - Hint 1/2

> Edit Metric

Metric Title

Deal Type - YTD

CHART SETTINGS

DATA SETTINGS

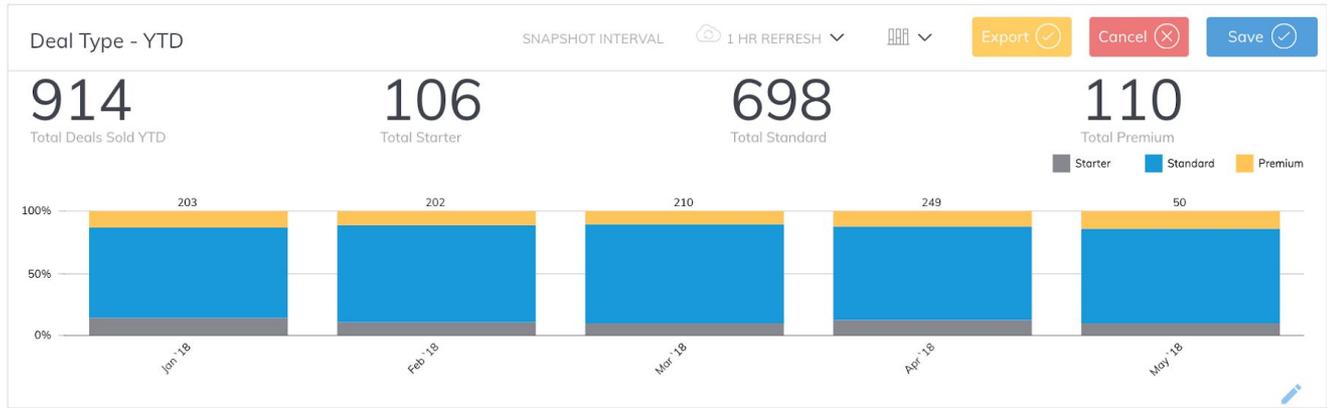
Metric Description

Data Series

Chart Labels

Key Value

Filterable Columns



REPORT1

SPREADSHEET FUNCTIONS

ADD NEW REPORT



Add Transform

Clear All



DATA PREVIEW

OPTIONS

	A	B	C	D	E	F	G	H	I
1	Month	Starter	Standard	Premium	Total Deals Sold	Overall Sum of Total Deals Sold	Overall Sum of Starter	Overall Sum of Standard	Overall Sum of Premium
2	2018-01	29	147	27	203	914	106	698	110
3	2018-02	21	157	24	202	914	106	698	110
4	2018-03	20	168	22	210	914	106	698	110
5	2018-04	31	188	30	249	914	106	698	110
6	2018-05	5	38	7	50	914	106	698	110
7									
8									
9									



# SQLite Metric - Hint 2/2

```
1 SELECT
2     SUBSTR(`CloseDate`,1,7) AS Month,
3
4     COUNT(CASE WHEN (`ACV`*1.00) <= 4500 THEN `ACV` END) AS 'Starter',
5
6     COUNT(CASE WHEN (`ACV`*1.00) BETWEEN 4500 AND 10000 THEN `ACV` END) AS 'Standard',
7
8     COUNT(CASE WHEN (`ACV`*1.00) >= 10000 THEN `ACV` END) AS 'Premium'
9
10 FROM report
11
12 WHERE `CloseDate` BETWEEN DATE('now','start of year') AND DATE('now')
13 GROUP BY 1
14 ORDER BY 1
15 ;
16
```

