



regoUniversity

NASHVILLE • 2022

Power BI Dashboards | Beginner

Your Guides: Robert Newell & Rajini Mamidi

Part I: Introduction

<Descriptor>



Introductions

- Take 5 Minutes
- Turn to a Person Near You
- Introduce Yourself
- Business Cards

Course Outline

Overview

- What is Power BI
- Power BI Components
- Data Flow

Connecting to Data Sources

- Power BI Service Navigation
- Options to Connect to Sources
- Creating a Data Connection

Reports and Dashboards

- Dashboard Components
- Options to Share Reports and Dashboards

Creating a Report

- Power BI Desktop Navigation
- Creating a Simple Report Using Power BI Application
- Examples of Using Custom Visuals

Data Import Options

- Connecting to ODATA and Oracle Server and Extracting Data
- DirectQuery vs. Import

Data Transformation

- Data Transformation Components
- Data Modeling

Data Transformation - Advanced

- Creating your own M script for your next advanced report
- M Script Examples

Session Goal and Objectives

Course Goal: To provide an overview of Power BI functionality in conjunction with Clarity data.

Course Objectives: You will learn how to:

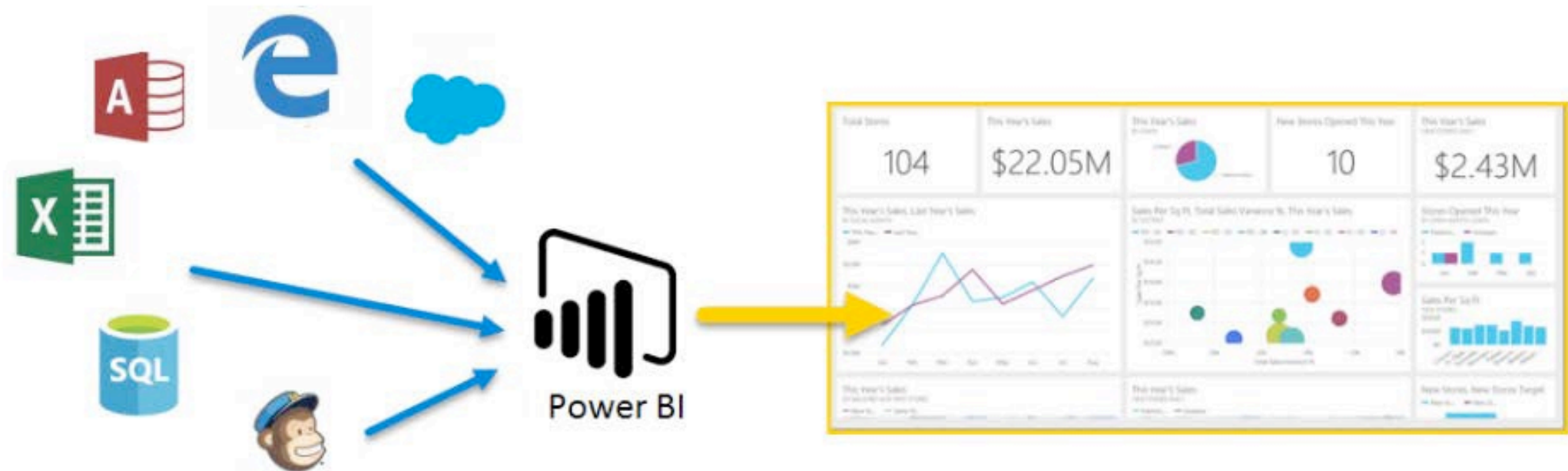
- Understand How Power BI Works with Clarity Data
- Connect to Data Sources
- Create Reports and Dashboard
- Create and Modify M Scripts

Overview

- What is Power BI
- Power BI Components
- Data Flow

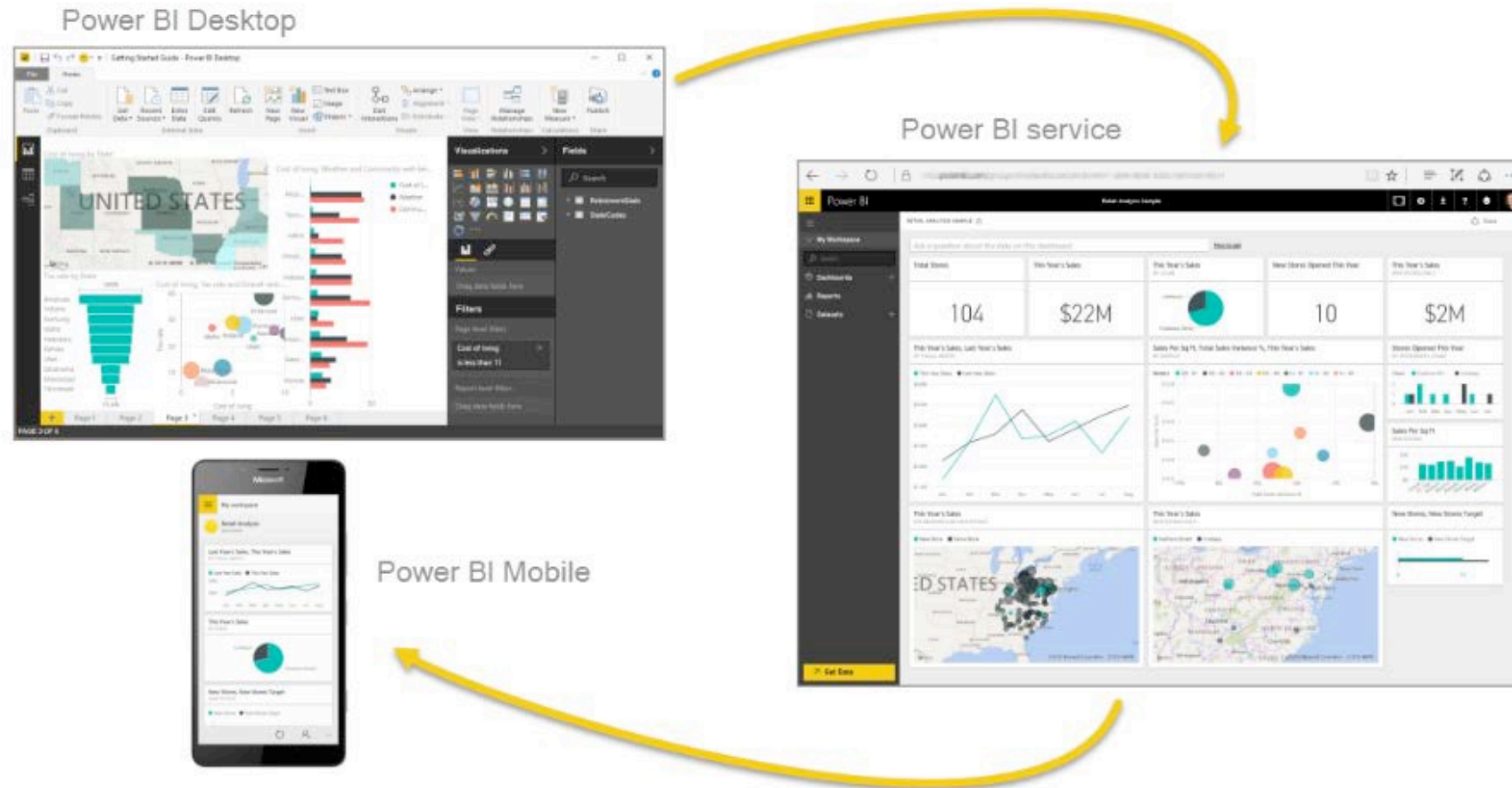
Overview

Power BI is a dashboard tool from Microsoft that lets you connect to variety of data sources and create visually stunning and interactive dashboards.



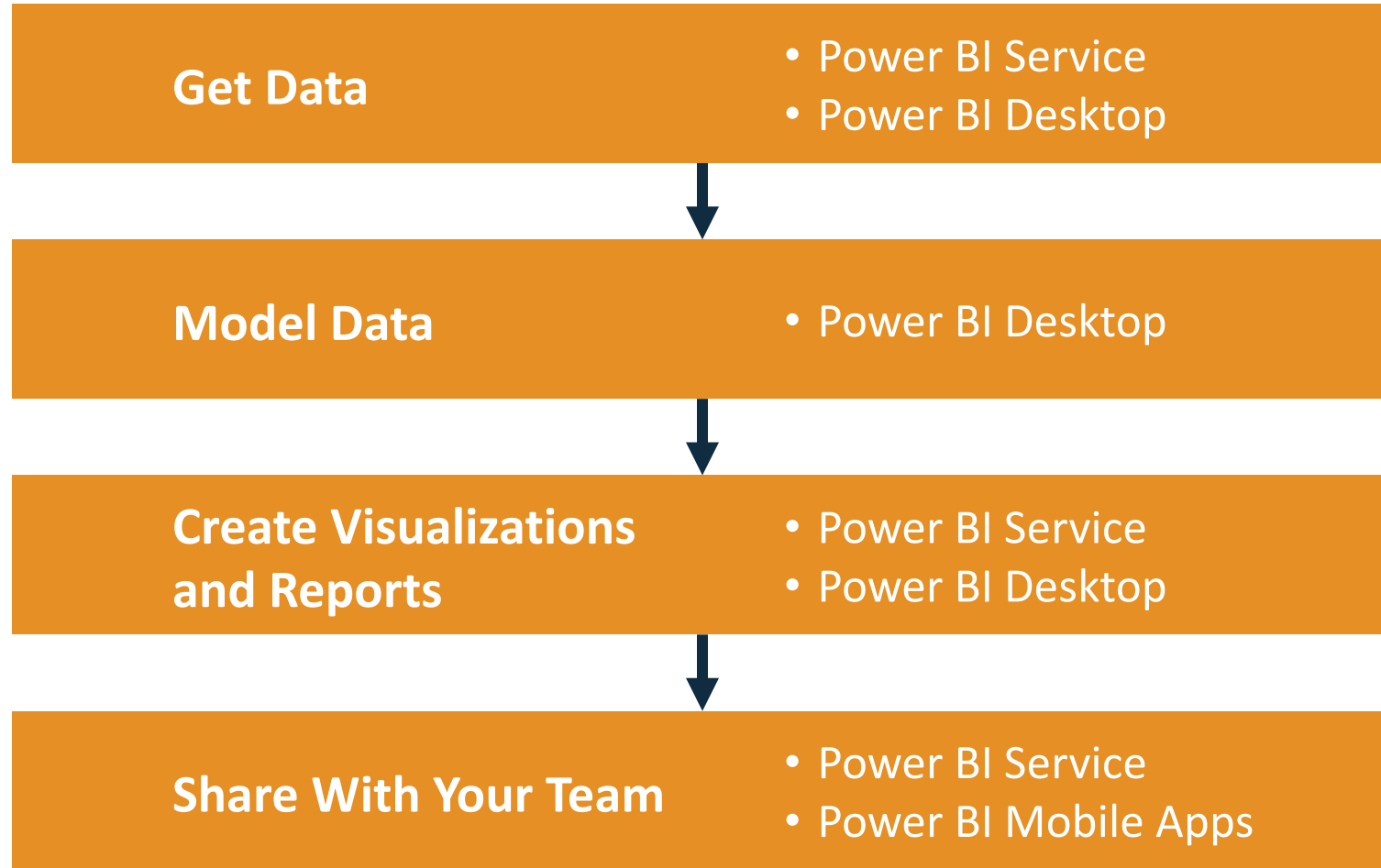
Overview

Power BI has 3 main components:



Overview

Development Approach



Connecting to Data Sources

- Power BI Service Navigation
- Options to Connect to Sources
- Creating a Data Connection

Connecting to Data Sources



Power BI Service Navigation

The screenshot shows the Power BI Service interface. At the top, the header includes 'Power BI', 'My Workspace > Get Data', and 'Pro trial: 33 days left'. A navigation pane on the left lists 'Favorites', 'Recent', 'Apps', 'Shared with me', 'Workspaces', and 'My Workspace'. The main content area features a 'Welcome to Power BI' message with the text: 'You're on your way to exploring your data and monitoring what matters. Let's start by getting some data.' Below this, there is a link for 'Need more guidance? Try this tutorial or watch a video'. The 'Microsoft AppSource' section contains four cards: 'My organization' (Browse content packs that other people in your organization have published), 'Services' (Choose content packs from online services that you use), 'Files' (Bring in your reports, workbooks, or data from Excel, Power BI Desktop or CSV files), and 'Databases' (Connect to live data in Azure SQL Database and more). Each card has a yellow 'Get' button with an external link icon. At the bottom, there are links for 'Samples', 'Solution Templates', and 'Partner Showcase'. A 'Get Data' button is visible in the bottom left corner of the interface.

Connecting to Data Sources

Options to Connect to Sources

- SaaS solutions
- Azure services
- Custom content packs
- Custom connections
- On-premise SAS data
- Excel workbooks
- CSV files
- Power BI Desktop files

Get Data

Need more guidance? [Try this tutorial](#) or [watch a video](#)

Content Pack Library

My organization
Browse content packs that other people in your organization have published.

Services
Choose content packs from online services that you use.

Import or Connect to Data

Files
Bring in your reports, workbooks, or data from Excel, Power BI Desktop or CSV files.

Databases
Connect to live data in Azure SQL Database and more.

Connecting to Data Sources



Creating a Data Connection

Import or Connect to Data

Files

Bring in your reports, workbooks, or data from Excel, Power BI Desktop or CSV files.

Get ↗

Databases

Connect to live data in Azure SQL Database and more.

Get ↗



Reports and Dashboards

- Dashboard Components
- Options to Share Reports and Dashboards

Reports and Dashboards

Dashboard Components

- Dashboard are high level view of some key KPI of one or more reports. Reports are pinned to a live page which then adds it to a new or existing Dashboard.
- An entire report can be published or individual visualizations from multiple reports.

Reports and Dashboards

Options to Share Reports and Dashboards

- Publish reports to the web
- Share dashboards
- Duplicate and modify shared dashboards (personal versions)
- Export to multiple formats
- Print
- QR code

Reports and Dashboards

Steps to Share

Publish to Web

- Do not use this option as it will allow access to dashboard to public

Share

- Grant/Revoke access to colleagues in the organization
- It will warn you if you have entered an email address outside the organization

Create Workspaces (Pro only)

- Public or Private groups
- Edit or View only groups

Create Apps (Pro Only)

- Entire Organization
- Specific Individual or Groups

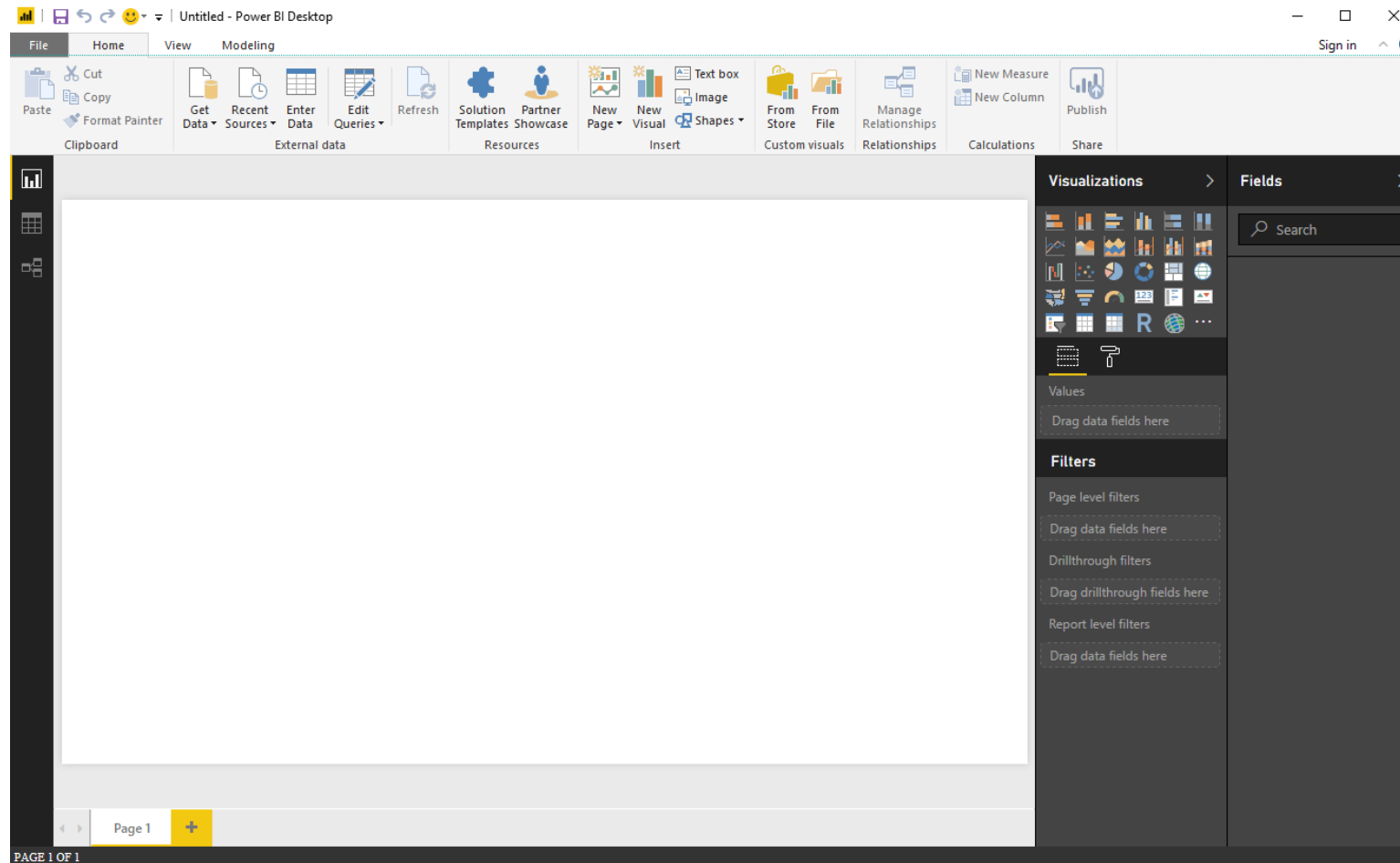
Creating a Report

- Power BI Desktop Navigation
- Creating a Simple Report Using Power BI Application
- Examples of Using Custom Visuals

Creating a Report



Power BI Desktop Navigation

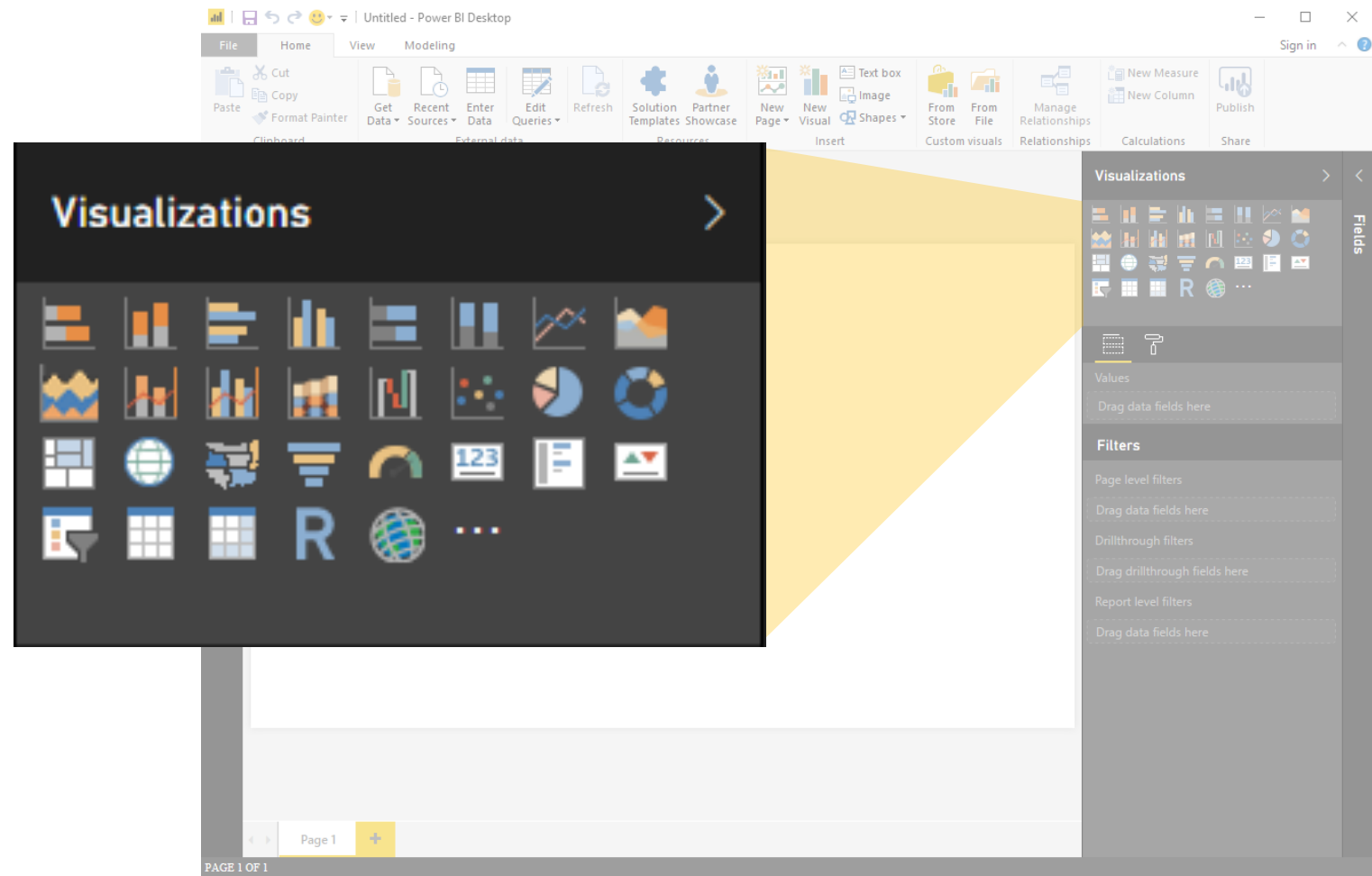


Reports and Dashboards

Dashboard Components

Chart Visualizations

- Bar chart
- Column chart
- Line chart
- Are chart
- Pie chart
- Combo chart
- Bubble chart
- Scatter chart
- Donut chart
- Gauge chart
- Funnel chart
- Waterfall chart



Creating a Report



Creating a report

Late Milestones

OBS Type: Corporate Department OBS | OBS Path: All

Investment ID	Investment Name	Milestone Name	Investment Manager	Status	Base Finish Date
PRS1000	A Fantastic Project (PfM Tr...	Analyze Phase Complete	Flanagan, Christopher	Not Started	Monday, April 20, 2016
PD1012	Atropa Retina Scan - Proj...	Business Case Complete and Go to Development	Miles, Paul	Not Started	Monday, April 13, 2016
PD1002	Aurastopax JIA - Project	Business Case Complete and Go to Development	Miles, Paul	Not Started	Monday, August 10, 2016
PD1003	Brightlight 3000 - Project	Business Case Complete and Go to Development	Miles, Paul	Not Started	Friday, October 9, 2016
PD1009	Diagnostic ECG - Project	Business Case Complete and Go to Development	Angelo, Michael	Not Started	Thursday, September 8, 2016
PD1015	Echo Cardiography 3000 - ...	Business Case Complete and Go to Development	Angelo, Michael	Not Started	Thursday, September 8, 2016
PD1010	Hourscopic Imaging 1000 - ...	Business Case Complete and Go to Development	Miles, Paul	Not Started	Tuesday, August 11, 2016
PD1004	Magnisia 4000 - Project	Business Case Complete and Go to Development	Angelo, Michael	Not Started	Tuesday, August 11, 2016
PD1016	Molecular Imaging 4000 - ...	Business Case Complete and Go to Development	Angelo, Michael	Not Started	Tuesday, August 11, 2016
PD1014	Molecular Imaging 6000 - ...	Business Case Complete and Go to Development	Nunez, Angel	Not Started	Tuesday, August 11, 2016
PD1008	MIR 3000 - Project	Business Case Complete and Go to Development	Tennison, Peter	Not Started	Tuesday, August 11, 2016
PD1011	Nuclear Cardiology 2200 - ...	Business Case Complete and Go to Development	Angelo, Michael	Not Started	Tuesday, August 11, 2016
PD1005	PET Rn - Project	Business Case Complete and Go to Development	Craig, Allen	Not Started	Tuesday, June 9, 2016
PD1006	Sonara XT - Project	Business Case Complete and Go to Development	Miles, Paul	Not Started	Tuesday, August 11, 2016
PD1013	Ultrasound V4500 - Project	Business Case Complete and Go to Development	Angelo, Michael	Not Started	Tuesday, August 11, 2016
PD1007	Vidium 2000 - Project	Business Case Complete and Go to Development	Craig, Allen	Not Started	Monday, November 14, 2016
PR1006	2015 eCommerce Portal Pt...	Closing Phase Gate Complete	Ajya, Vishal	Not Started	Friday, February 19, 2016
PR1001	4G Upgrade Readiness	Closing Phase Gate Complete	Reed, Henry	Not Started	Tuesday, September 15, 2016
PR1016	Automated Security Enhanc...	Closing Phase Gate Complete	Berks, Paul	Not Started	Thursday, September 15, 2016

Anesthesia Delivery (PfM Training Class)

Overall Status: ● ● ●

Effort Variance: 40.17K ● ● ●

Schedule Variance: 0 ● ● ●

Change Request: ● ● ●

Issue: ● ● ●

Risk: ● ● ●

Low: ● ● ●

All Risks

Target Resolution Date: 10/10/2015 - 4/24/2017

OBS Type: Business Transformation Group | OBS Path: All

Risk Count: 11

Risk by Priority: High (5), Medium (4), Low (2)

Risk by Status: Open (9), Closed (1), WIP (1)

Risk by Target Resolution Date: 2015 (7), 2016 (3), 2017 (1)

Investment ID	Investment Name	Risk Name	Investment Manager	Risk ID	Owner	Status	Priority	Target Resolution Date
PN1011	Anesthesia Delivery (PfM Training Class)	Test Risk Objectives	Tennison, Peter	RS1077	Josh, Navdeep	Open	Medium	Friday, October 23, 2015
PR1016	Automated Security Enhancements	Key Resource not available	Berks, Paul	RS1073	Administrator, System	Open	High	Saturday, October 10, 2015
PR1052	Test-MK	Requirements to be freed on time	Administrator, System	RS1074	Administrator, System	Open	High	Tuesday, October 13, 2015
PR1052	Test-MK	Requirements to be freed on time	Administrator, System	RS1074	Administrator, System	Open	Medium	Tuesday, October 13, 2015
PR1052	Test-MK	Requirements to be freed on time	Administrator, System	RS1074	Administrator, System	Open	High	Thursday, February 11, 2016
PR1052	Test-MK	Requirements to be freed on time	Administrator, System	RS1074	Administrator, System	Open	High	Friday, June 3, 2016
PR1052	Test-MK	Requirements to be freed on time	Administrator, System	RS1074	Administrator, System	Open	High	Friday, June 3, 2016
PR1052	Test-MK	Requirements to be freed on time	Administrator, System	RS1074	Administrator, System	Open	High	Monday, April 24, 2017
PR1052	Test-MK	Requirements to be freed on time	Administrator, System	RS1074	Administrator, System	Open	High	Tuesday, November 10, 2015
PR1052	Test-MK	Requirements to be freed on time	Administrator, System	RS1074	Administrator, System	Open	Low	Tuesday, November 10, 2015

Issue by OBS Level 2: (Blank) 1, Business Operations 2, NPN 1

Risk by Priority: High (1), Low (2), Medium (1)

Risk by Status: Open (2), WIP (2)

Risk by Target Res: 2015 (1), 2016 (2)

Actuals by Type: Application (5), Asset (11), Idea (110)

Allocation by Type: Application (490), Asset (386), Idea (490), Other (386), Product (506), Project (498)

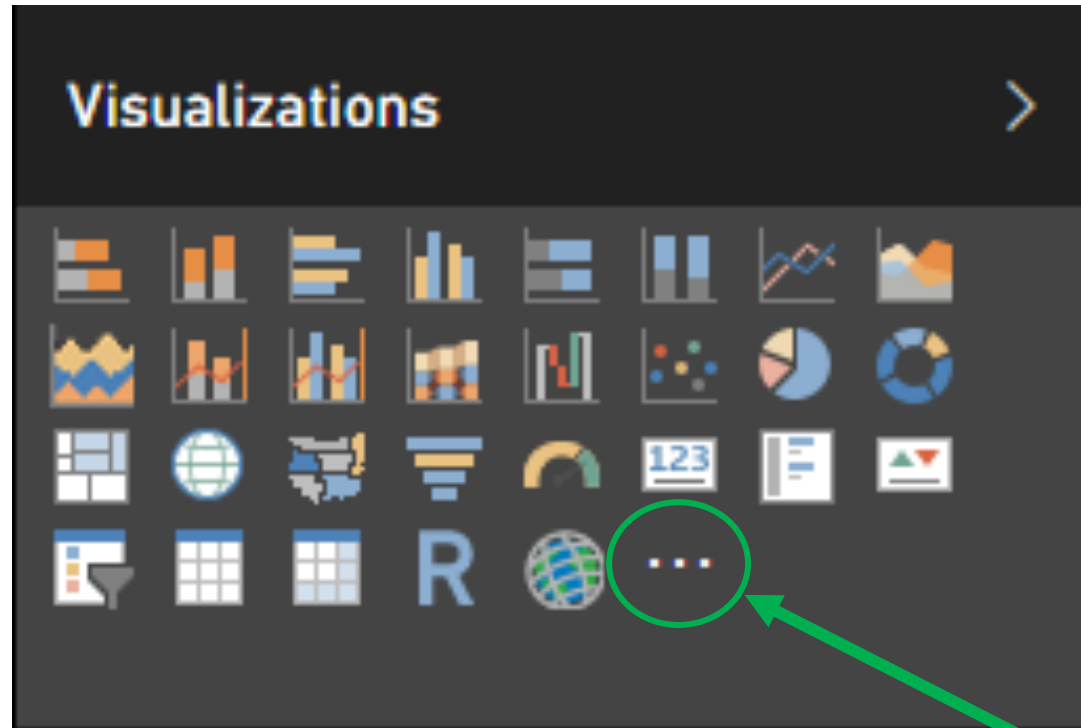
Investment Name	Issue Name	Investment Manager	Issue ID	Owner	Target Resolution Date	Status	Priority
KL QWB Project 1234	a'spodjgajjd	Lockwood, Karl	IS1092	Lockwood, Karl	Wednesday, April 27, 2016	WIP	Low
CLR Demo Project	new issue from the risk	Rice, Christi	IS1094	Rice, Christi	Monday, April 24, 2017	Open	Medium
JH Project-Financial Mgmt Overview	Risk 1 to Issue 1	Hoaldridge, Jon	IS1091	Hoaldridge, Jon	Thursday, February 11, 2016	WIP	High
Anesthesia Delivery (PfM Training Class)	Test Issue Objectives from Risk	Tennison, Peter	IS1090	Josh, Navdeep	Friday, October 23, 2015	Open	Low

Investment ID	Issue ID	Issue Name	Target Resolution Date	Probability	Priority	Investment ID	Risk ID	Risk Name	Target Resolution Date	Probability	Priority
PR1052	IS1089	Requirements to be freed on time		Low	Low	PR1016	RS1073	Key Resource not available	10-Oct-15	Low	High
PN1011	IS1090	Test Issue Objectives from Risk	23-Oct-15	Low	Low	PR1052	RS1074	Requirements to be freed on time	13-Oct-15	Medium	High
PR1083	IS1091	Risk 1 to Issue 1	11-Feb-16	High	High	PR1052	RS1075	Resource availability	13-Oct-15	High	Medium
PR1094	IS1092	a'spodjgajjd	27-Apr-16	Low	Low	PN1011	RS1077	Test Risk Objectives	23-Oct-15	High	Medium
PR1165	IS1094	new issue from the risk	24-Apr-17		Medium	PRS1000	RS1078	Low Risk Sample	10-Nov-15	Low	Low
						PRS1000	RS1079	Medium Risk Sample	10-Nov-15	Medium	Medium
						PRS1000	RS1080	High Risk Sample	10-Nov-15	High	High
						PR1083	RS1082	Risk 1	11-Feb-16	Medium	High

Visuals



Examples of Custom Visuals



Data Import Options

- DirectQuery vs. Import
- Connecting to ODATA and Oracle Server and Extracting Data

Data Import Options



Connecting to ODATA and Oracle Server and Extracting Data

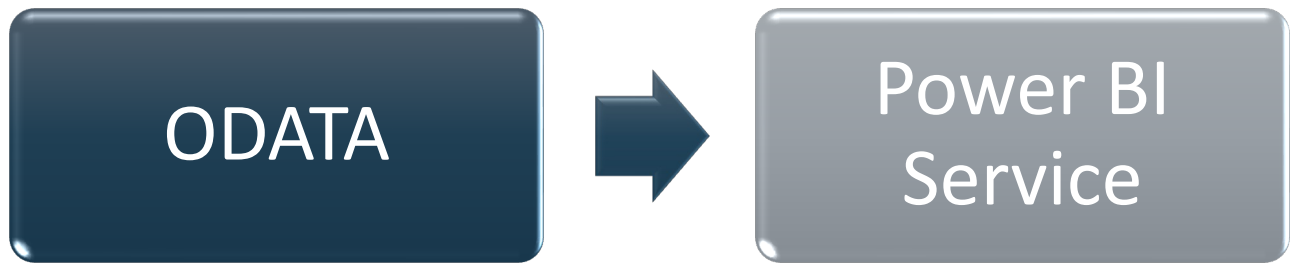


OData Feed



Oracle database

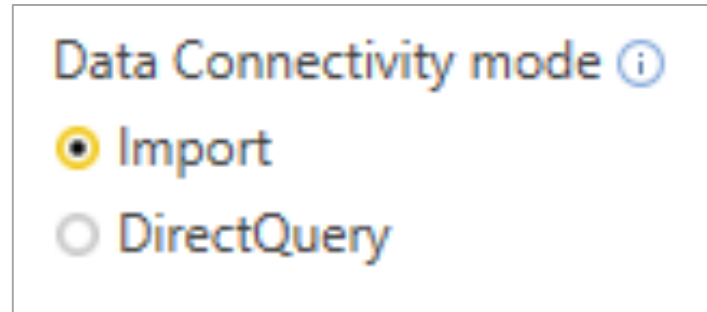
Data Refresh – On Premise vs On Demand Clarity



Data Import Options



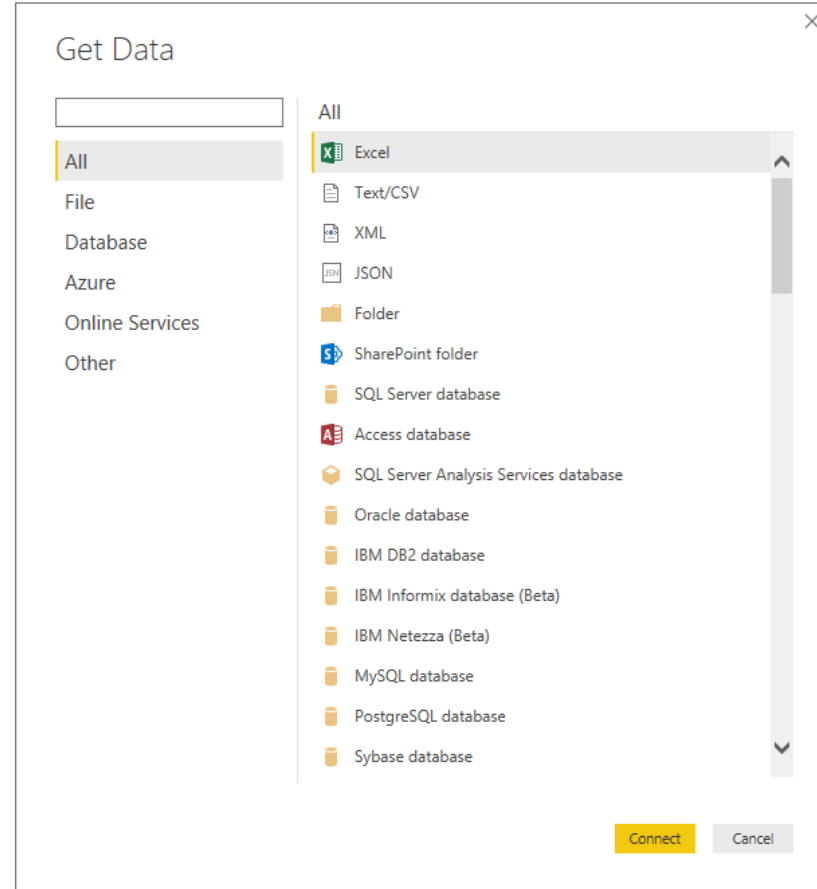
DirectQuery vs. Import [Oracle]



Data Import Options



Connecting to a Source



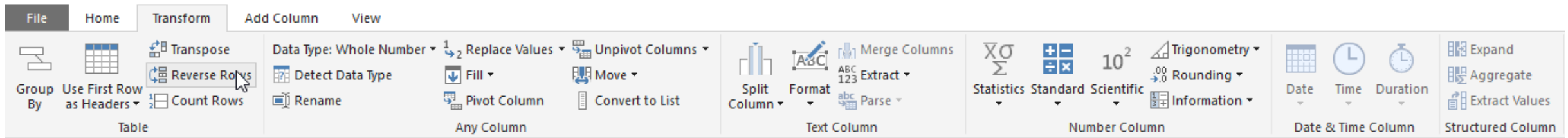
Data Transformation

- Data Transformation Components
- Data Modeling

Data Transformation

Data Transformation Components

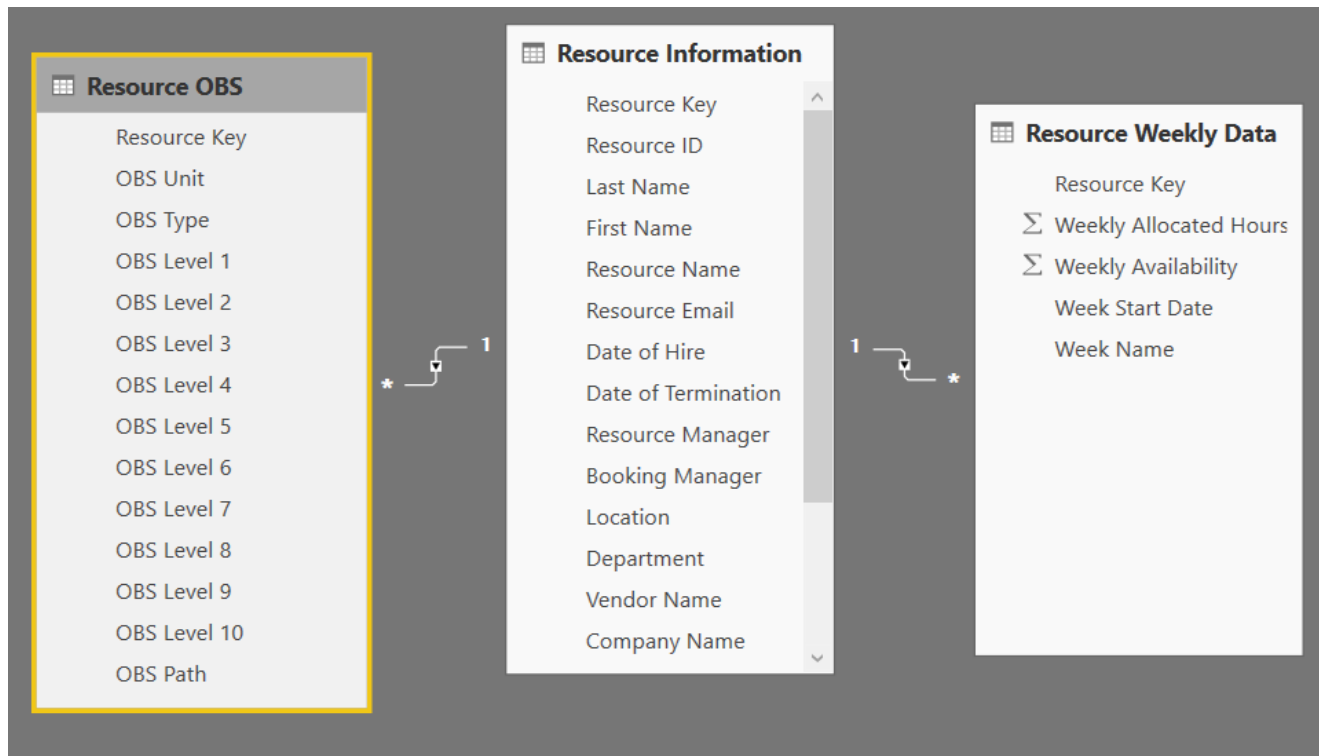
- Use first row as header
- Split the field or concatenate fields
- Replace values null with blanks
- Group data
- Pivot/unpivot columns
- Aggregate functions
- Format columns



Data Transformation

Data Modeling

- Import multiple tab from Excel or Create multiple queries
- Join the tables



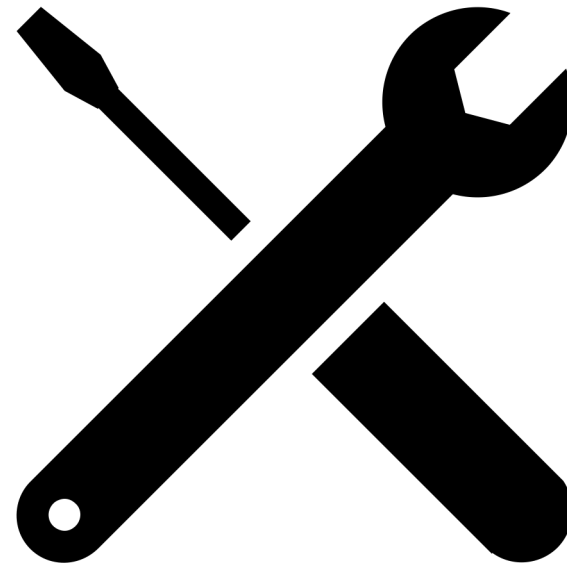
Data Transformation - Advanced

- Creating your Own M Script
- M Script Examples

Data Transformation - Advanced



Creating your own M script for your next advanced report



Create a Dashboard by connecting to Odata Feed



Here are the steps to create a dashboard:

- Open your Power BI Desktop instance
- Select OData feed option under GetData
- Enter the Odata URL provided by your admin and click on OK
- Enter the username & password and click on Connect to authenticate
- Odata Table Navigator opens. Select the tables required for your dashboard and click on Load

Navigator

DWH_INV_INVESTMENT
Preview downloaded on Wednesday

INVESTMENT_KEY	CLARITY_INVESTMENT_KEY	INVESTMENT_ID	INVESTMENT_NAME
5006027	5006027	IDA00275	Annual Benefit Changes I
5006029	5006029	IDA00277	Annual PPO Network Ch
5006030	5006030	IDA00279	Medicare Advantage Plar
5006032	5006032	IDA00307	New HRA vendor

The data in the preview has been truncated due to size limits.

- Selected Tables gets loaded and power BI canvas opens up.

Get Data | Recent Sources | Enter Data | Ed...
Most Common
Excel
Power BI service
SQL Server
Analysis Services
Text/CSV
Web
OData feed

OData feed
 Basic Advanced
URL

OK Cancel

OData feed
https://cppmbi9000.ondemand.ca.com/api/odata/S...

Anonymous
Windows
Basic
Web API
Marketplace key
Organizational account

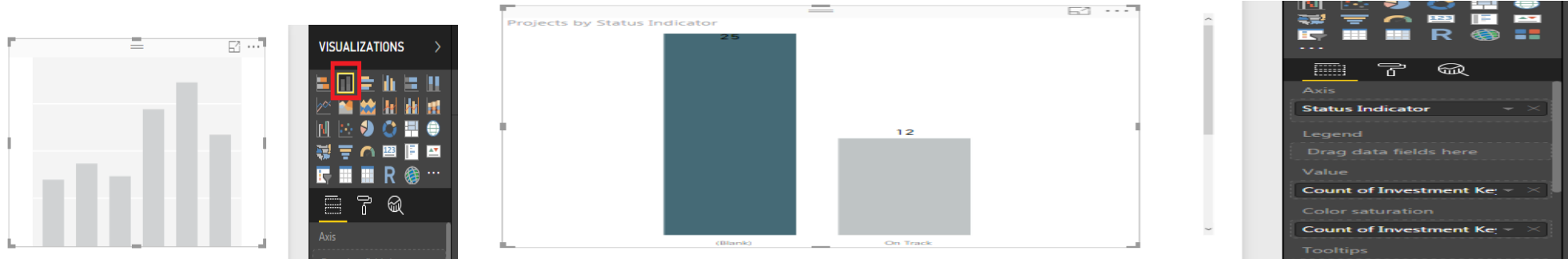
User name

Password

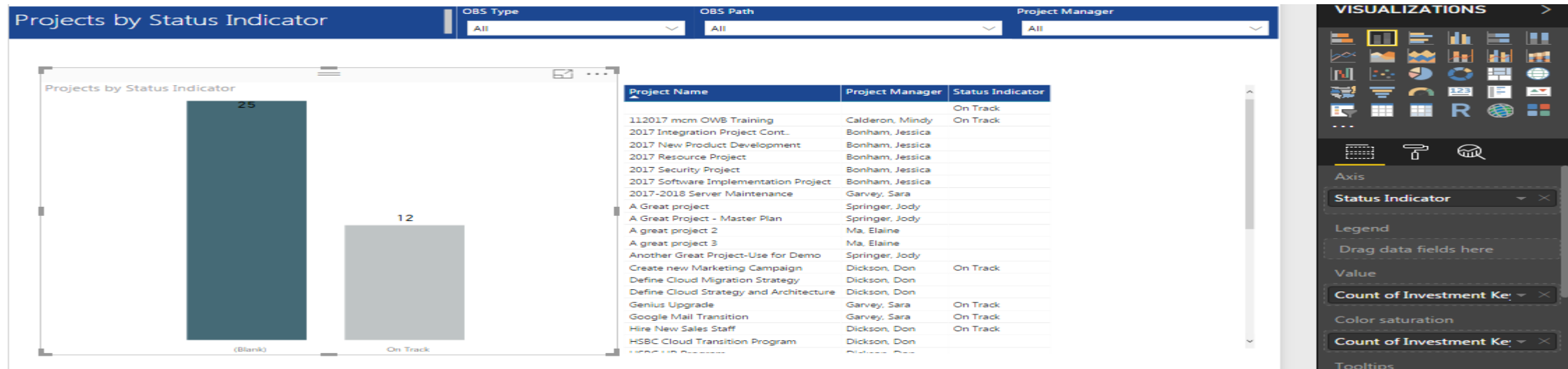
Back Connect Cancel

Create a Dashboard by connecting to Odata Feed

- Select the required visualization and drag the fields from the tables on to the settings to generate a meaningful visualization.



- You can group related visualizations under a single dashboard. Save the dashboard after completion.



Project Name	Project Manager	Status Indicator
112017 mcm OWB Training	Calderson, Mindy	On Track
2017 Integration Project Cont.	Bonham, Jessica	On Track
2017 New Product Development	Bonham, Jessica	
2017 Resource Project	Bonham, Jessica	
2017 Security Project	Bonham, Jessica	
2017 Software Implementation Project	Bonham, Jessica	
2017-2018 Server Maintenance	Garvey, Sara	
A Great project	Springer, Jody	
A Great Project - Master Plan	Springer, Jody	
A great project 2	Ma, Elaine	
A great project 3	Ma, Elaine	
Another Great Project-Use for Demo	Springer, Jody	
Create new Marketing Campaign	Dickson, Don	On Track
Define Cloud Migration Strategy	Dickson, Don	
Define Cloud Strategy and Architecture	Dickson, Don	
Genius Upgrade	Garvey, Sara	On Track
Google Mail Transition	Garvey, Sara	On Track
Hire New Sales Staff	Dickson, Don	On Track
HSBC Cloud Transition Program	Dickson, Don	
HSBC HR Program	Dickson, Don	

Questions?



Thank You For Attending regoUniversity

Instructions for PMI credits

- Access your account at [pmi.org](https://www.pmi.org)
- Click on **Certifications**
- Click on **Maintain My Certification**
- Click on **Visit CCR's** button under the **Report PDU's**
- Click on **Report PDU's**
- Click on **Course or Training**
- Class Provider = **Rego Consulting**
- Class Name = **regoUniversity**
- Course **Description**
- Date Started = **Today's Date**
- Date Completed = **Today's Date**
- Hours Completed = **1 PDU per hour of class time**
- Training classes = **Technical**
- Click on **I agree** and **Submit**



Let us know how we can improve!
Don't forget to fill out the class survey.



Phone

888.813.0444



Email

info@regoconsulting.com



Website

www.regouniversity.com