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Power BI Dashboards | Beginner

Your Guides:

Robert Newell

Part I:
Introduction

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 by Broadcom 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

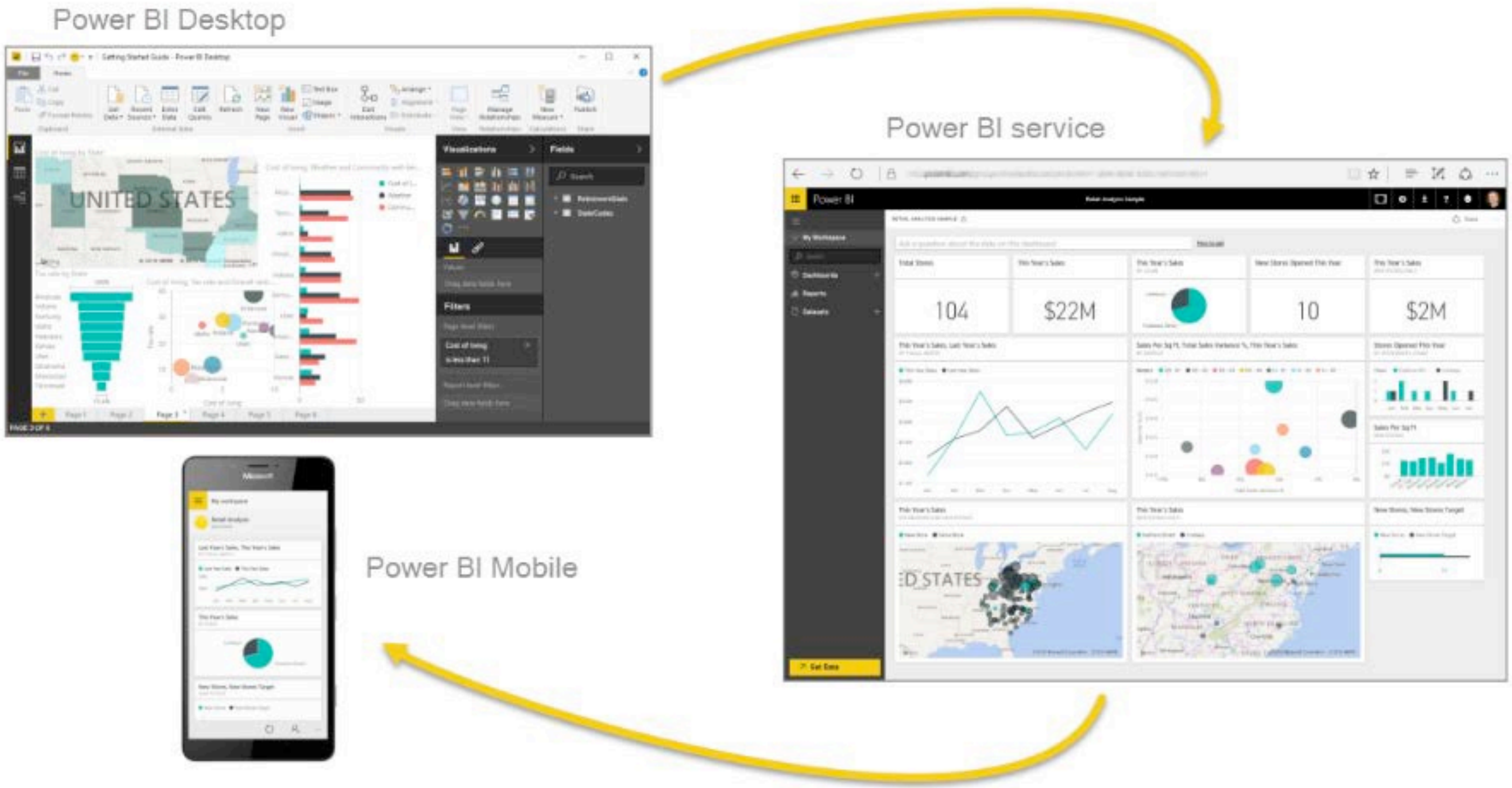
- What is Power BI
- Power BI Components
- Data Flow

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

Get Data
- Power BI Service
- Power BI Desktop

Model Data
- Power BI Desktop

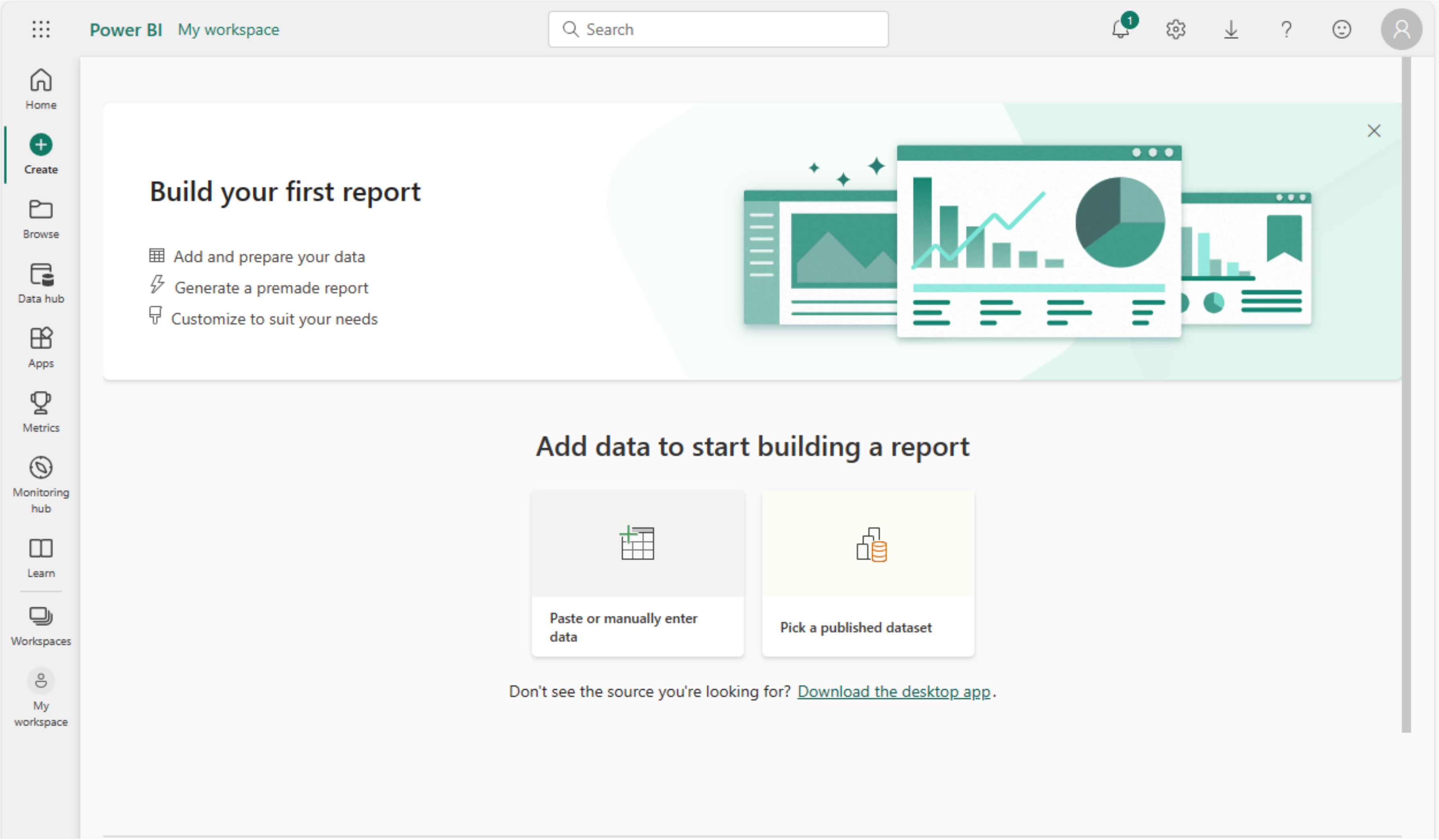
Create Visualizations and Reports
- Power BI Service
- Power BI Desktop

Share With Your Team
- Power BI Service
- Power BI Mobile Apps

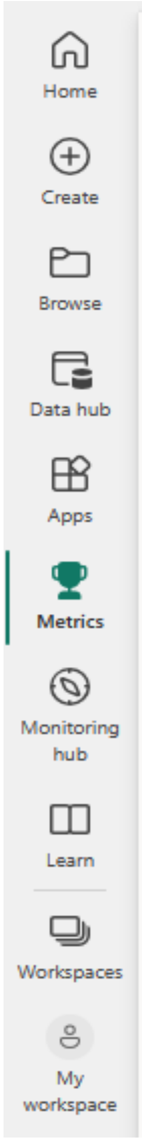
PowerBI Service

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

PowerBI Service Navigation



Menu Links



- **Home:** Default landing page when you log in to the Power BI service. It's a great starting point for viewing and navigating your content.
- **Create**: This is where you can start creating new content. You can create reports, dashboards, and more. The options available depend on your license.
- **Browse**: This is a new navigation tab that provides sub-navigation for lists that were previously available individually. On this page, you can access the Recent, Favorites, and Shared with me lists.
- **Data Hub**: This hub helps you find, explore, and use data items in your organization, such as datasets, datamarts, and their related reports.
- **Apps**: This is where all apps that have been shared with you or that you've installed are stored. You can go directly to your apps by selecting Apps on the navigation pane.
- **Metrics**: Provides a way to curate and track key business objectives, promoting accountability, alignment, and visibility within organizations.
- **Monitoring Hub**: This hub enables users to monitor various Microsoft Fabric activities, such as dataset refresh and Spark Job runs and many others, from a central location.
- **Learn**: This is where you can find learning resources and tutorials about Power BI.
- **Workspaces**: This is where you can collaborate on Power BI content with your colleagues. Then you can publish the finished app to large groups of people in your organization.
- **My Workspace**: This is your private sandbox for learning and experimenting. Only you can see your workspace.

Metrics

The metrics section of Power BI service can be a powerful tool for project and portfolio management reporting when used with data provided by Clarity by Broadcom. Here are some potential use cases:

- **Track Key Business Objectives:** Metrics in Power BI allow customers to curate their metrics and track them against key business objectives1. This can be particularly useful in project and portfolio management where you might want to track objectives such as project completion rates, resource utilization, or budget adherence.

- **Promote Accountability and Visibility:** The feature enhances data culture by promoting accountability, alignment, and visibility for teams and initiatives within organizations. For instance, you can create scorecards for different projects or teams and monitor their progress in real time.

- **Hierarchical Views**: Power BI supports cascading scorecards that roll up along hierarchies set up in your scorecard. This can be useful for viewing data at different levels of your organization or project structure. For example, you might have a hierarchy based on project stages or OBS units.

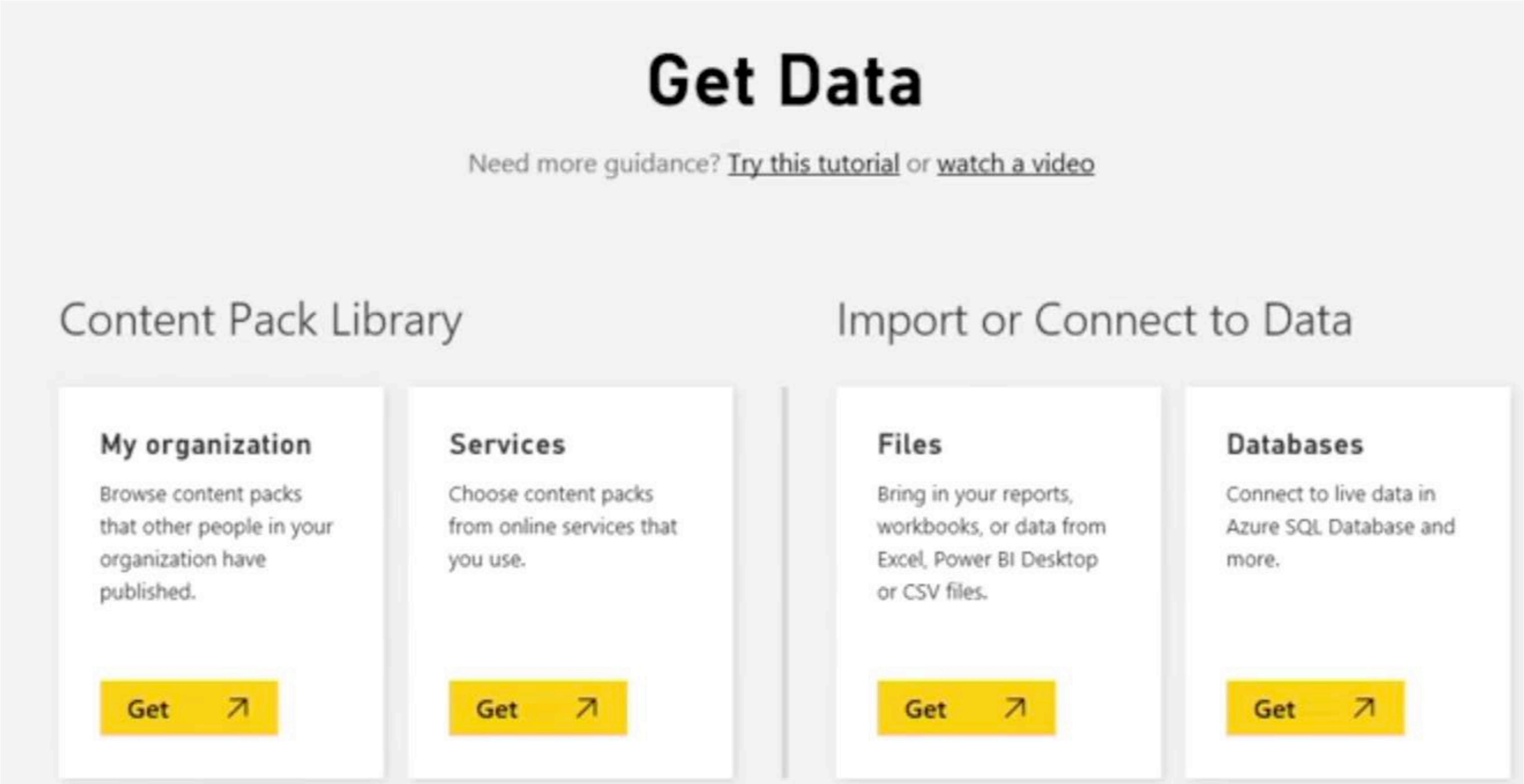
Connecting to Data Sources

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

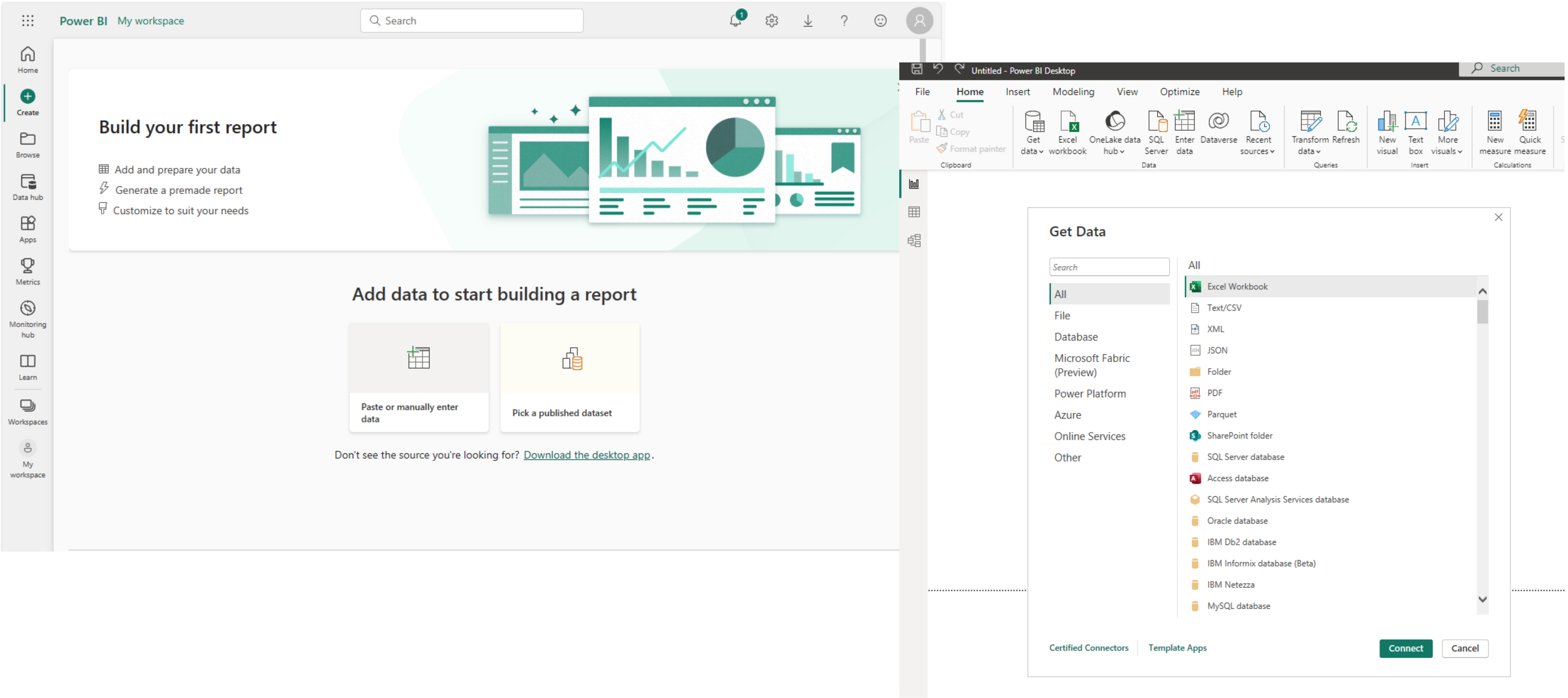
Connecting to Data Sources (Legacy)

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



Connecting to Data Sources (Updated)



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.

Sharing 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

Sharing Reports and Dashboards

- Share Reports and Dashboards
- Workspace Collaboration
- Share via Link
- Share from Power BI Mobile Apps
- Share from Power BI Desktop with OneDrive and SharePoint Integration

Licensing

Scenario	Creator	Consumer
You create a report in Power BI Desktop (.PBIX). Then you publish it to your My Workspace on the Power BI service.	As a creator, you only need the free Desktop app and a free Power BI license to publish to your My Workspace in the Power BI service for your own use. A paid Power BI Pro or PPU license is required to share content in My Workspace with others.	Consumers can't see content in other people's My Workspace unless the owners decide to share. To see shared My Workspace content requires a paid license.
You create a report in Power BI Desktop (.PBIX) and share the PBIX file to other people who open the file in Power BI Desktop	No licensing needed, only the Power BI Desktop app to be downloaded and installed.	No licensing needed, only the Power BI Desktop app to be downloaded and installed.
You create a report in Power BI Desktop (.PBIX) and publish it to a shared workspace in the Power BI service.	Paid license needed to publish to shared workspaces.	Paid license required to view the content unless the workspace is hosted in Premium capacity. For workspaces in Premium capacity, the consumer only needs a free license to view that report.
You're sent a link to a report hosted on the Power BI service and want to view it.	You need a paid license to share a link. You need a free license to share a link to a report that is in Premium capacity.	A paid license is required to view the report unless the report is hosted in Premium capacity. For reports hosted in Premium capacity, the consumer only needs a free license to view that report.

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)

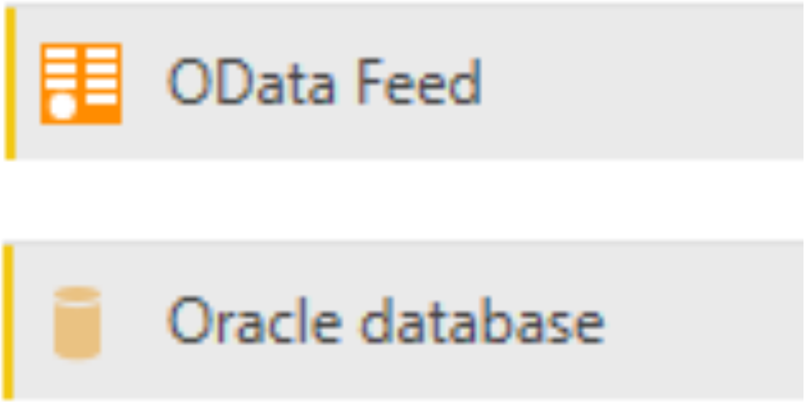
- Entire Organization
- Specific Individual or Groups

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



Data Refresh – On Premise vs On Demand Clarity

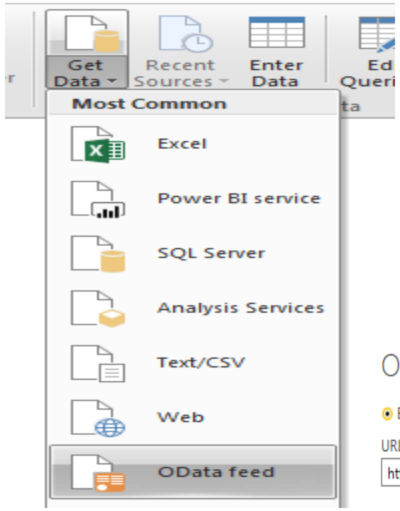
On Premise Database → Data Gateway → Power BI Service

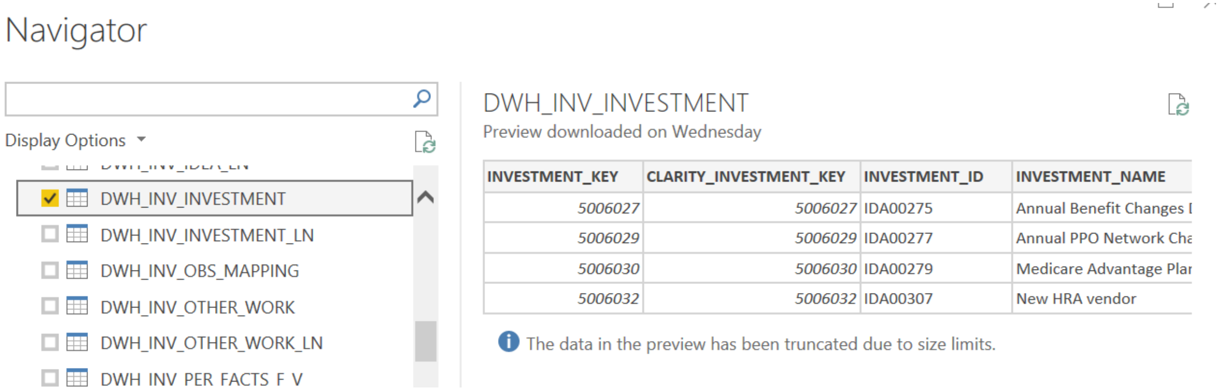
ODATA → Power BI Service

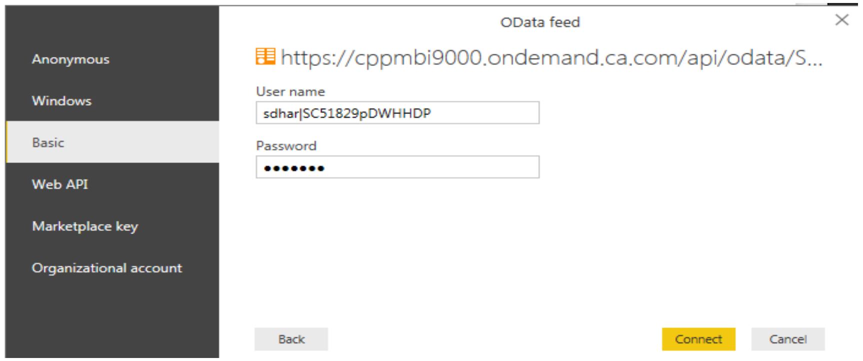
Connecting to Odata Feed

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



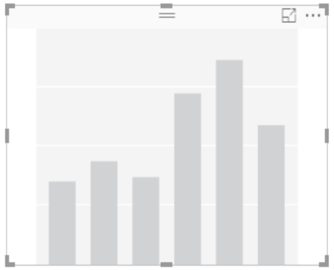


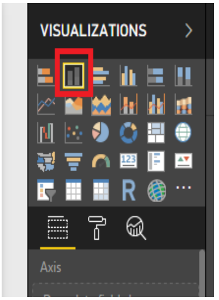


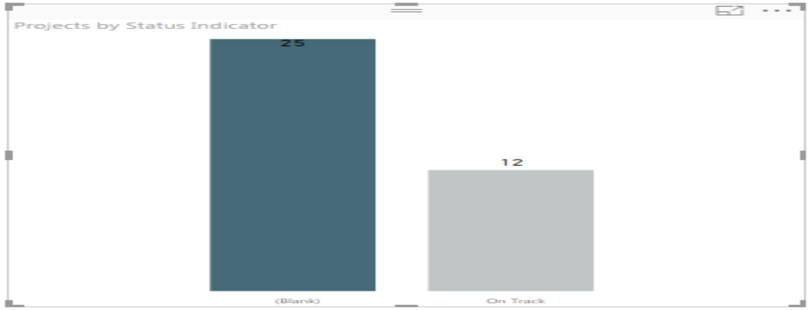
- Selected Tables gets loaded and power BI canvas opens up.

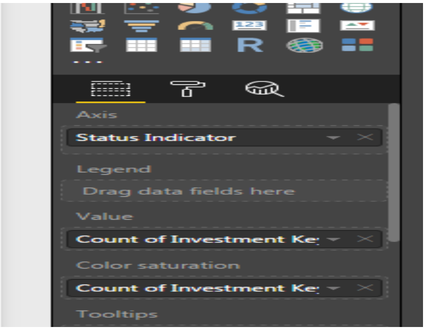
Connecting to Odata Feed

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

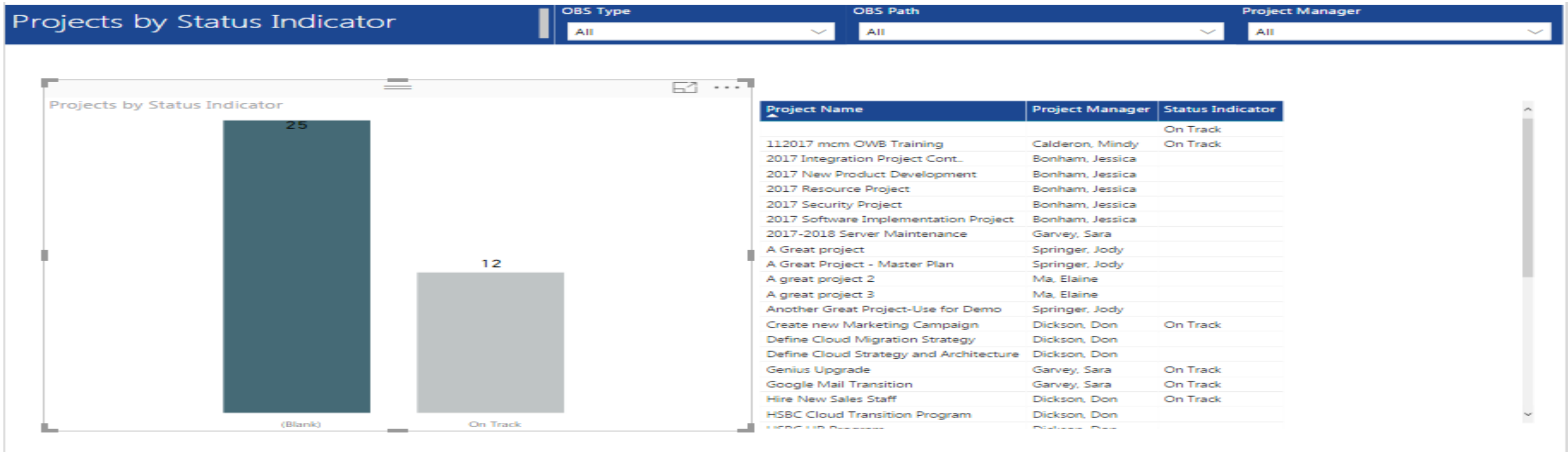


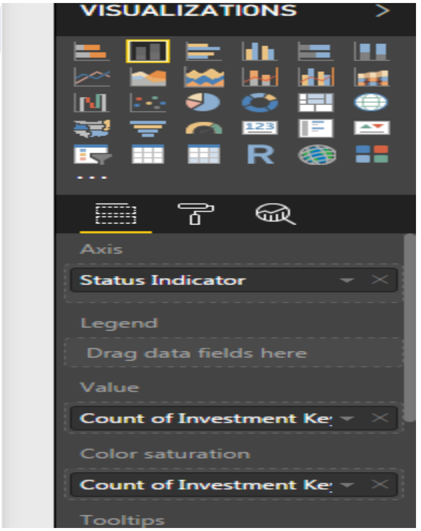






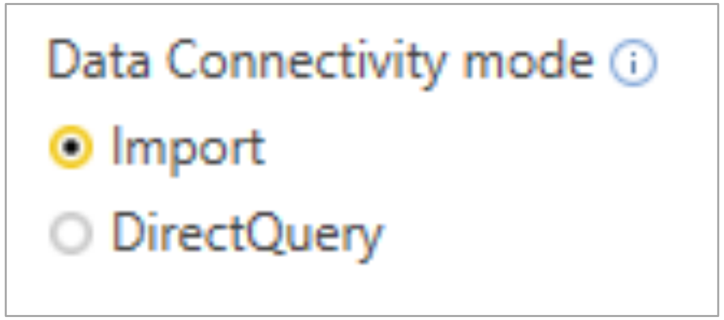
- You can group related visualizations under a single dashboard. Save the dashboard after completion.





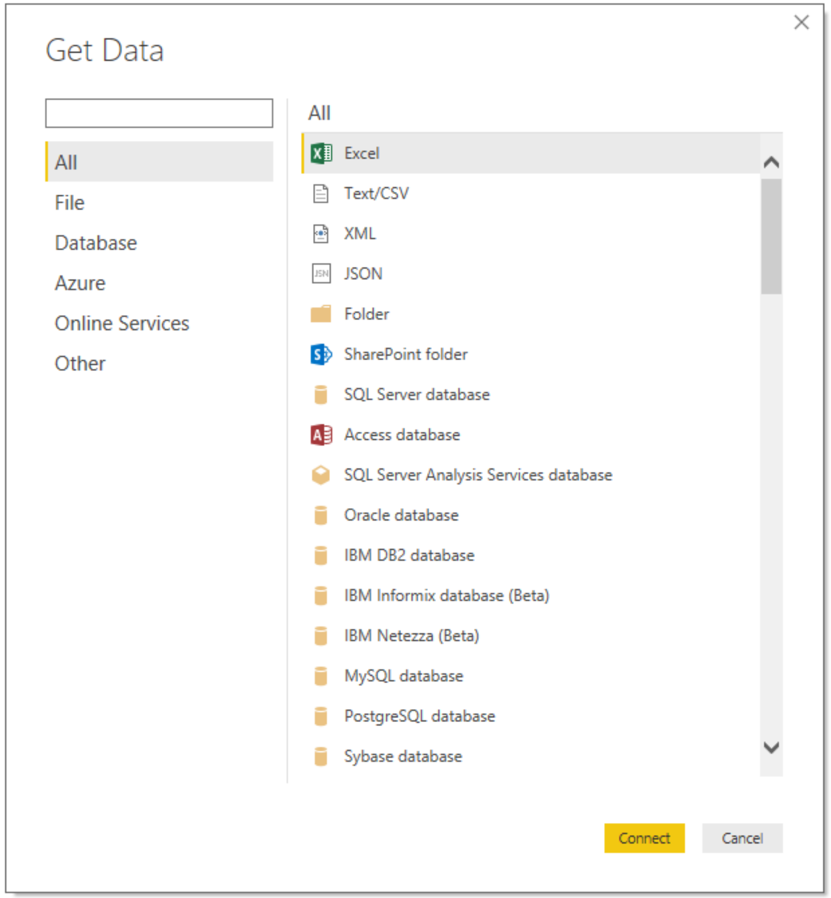
Data Import Options

DirectQuery vs. Import [Oracle]



Data Import Options

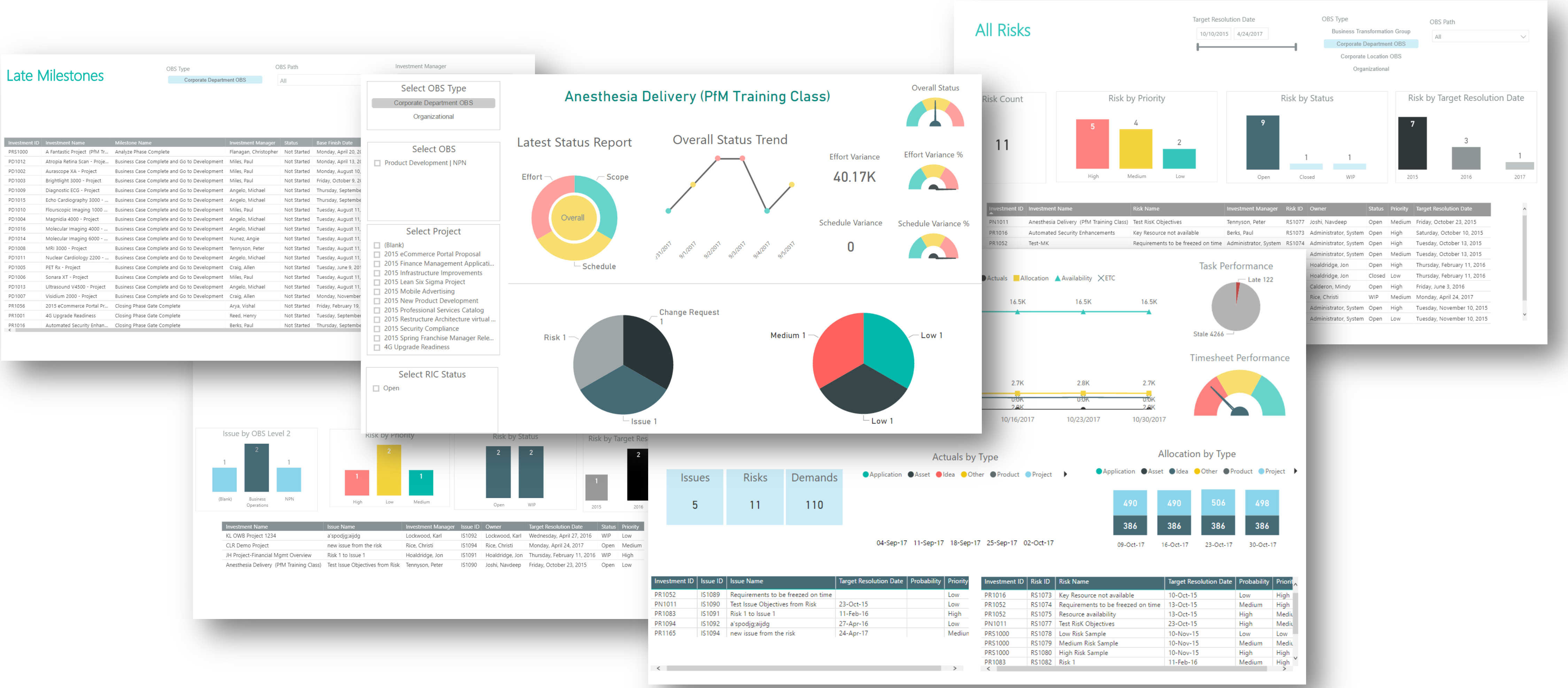
Connecting to a Source



Creating a Report

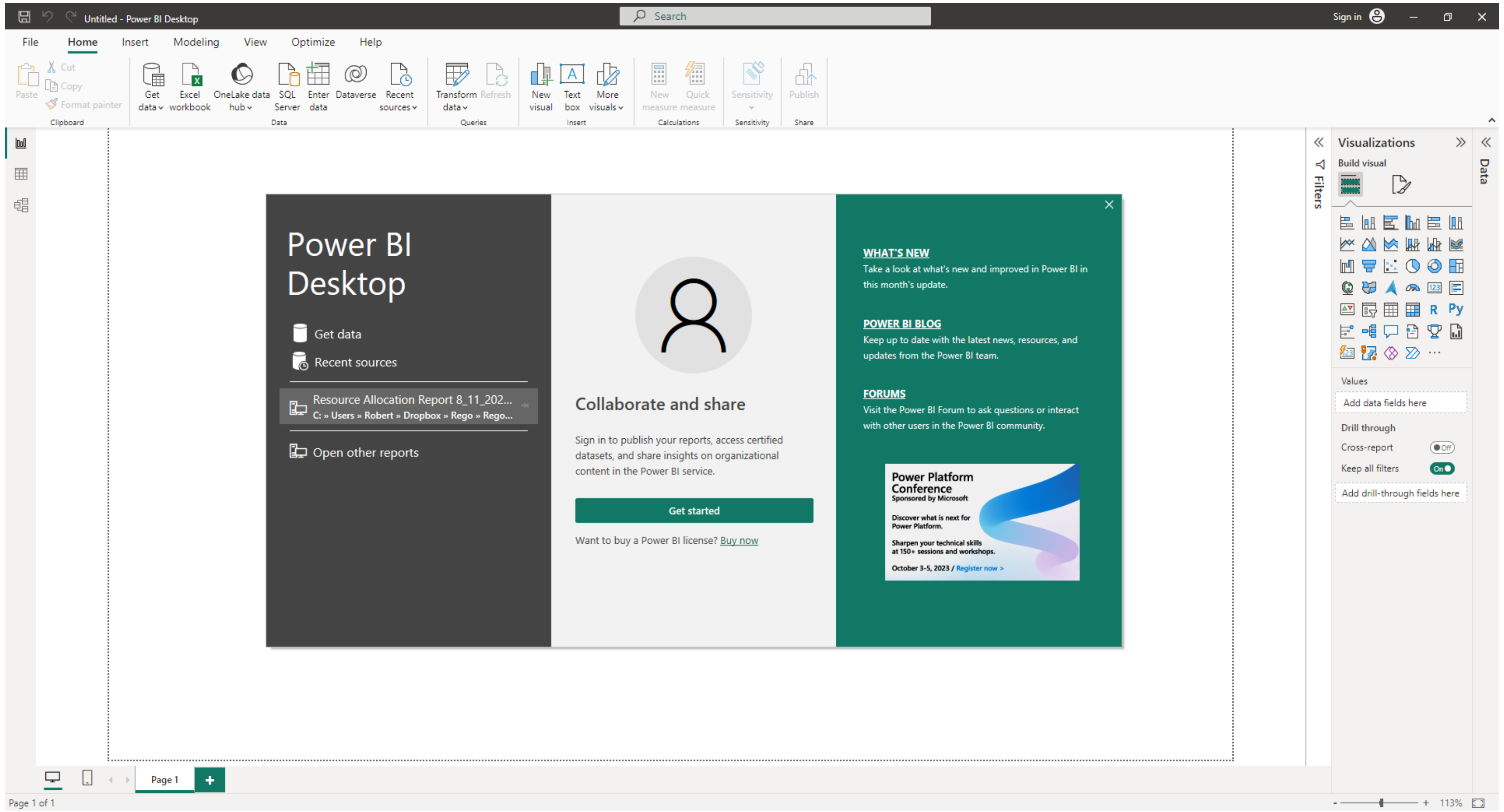
- Power BI Desktop Navigation
- Creating a Simple Report Using Power BI Application
- Examples of Using Custom Visuals

Creating a Report



Creating a Report

Power BI Desktop Navigation

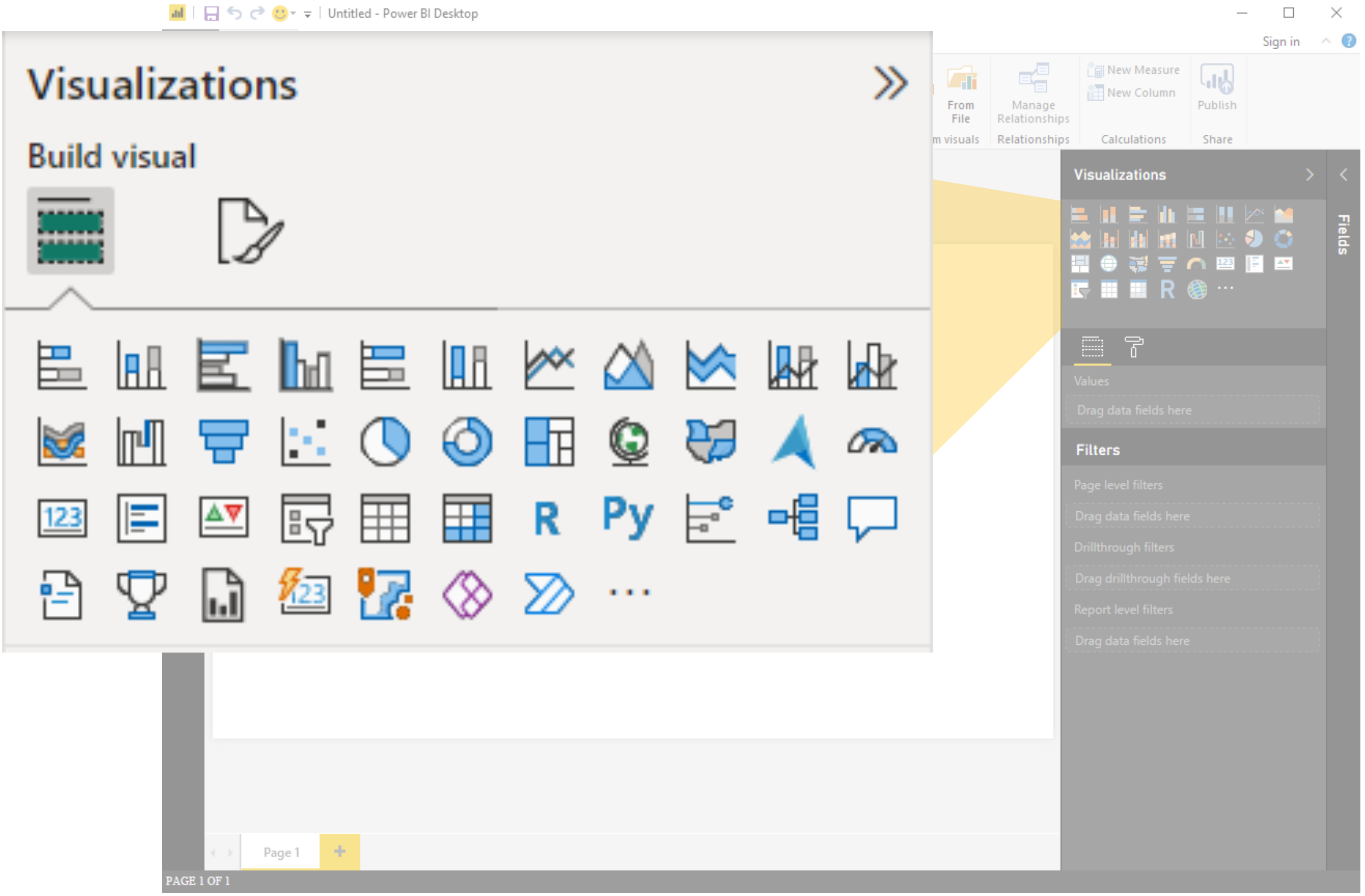


Reports and Dashboards

Dashboard Components

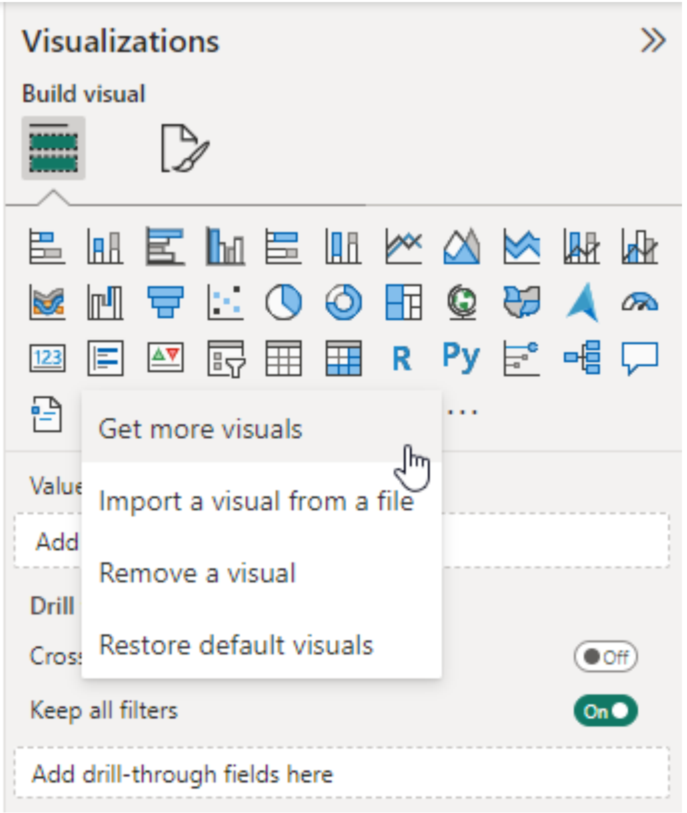
Chart Visualizations

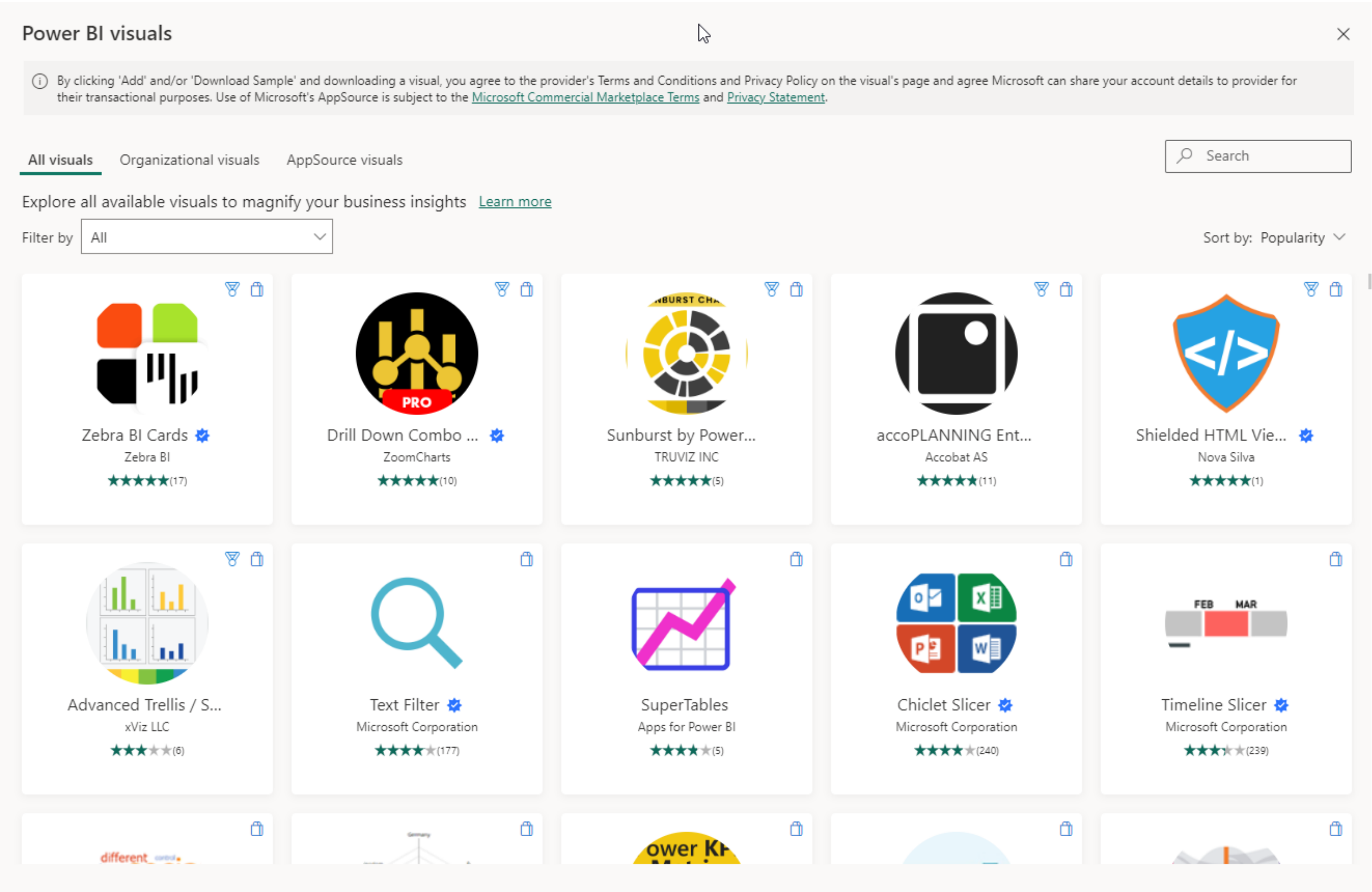
- Bar chart
- Column chart
- Line chart
- Are chart
- Pie chart
- Combo chart
- Bubble chart
- Scatter chart
- Donut chart
- Gauge chart
- Funnel chart
- Waterfall chart



Visuals

Examples of Custom Visuals





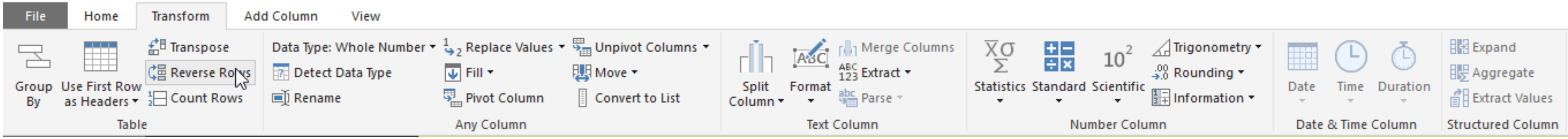
Data Transformation

- Data Transformation Components
- Data Modeling

Data Transformation

Data Transformation Components

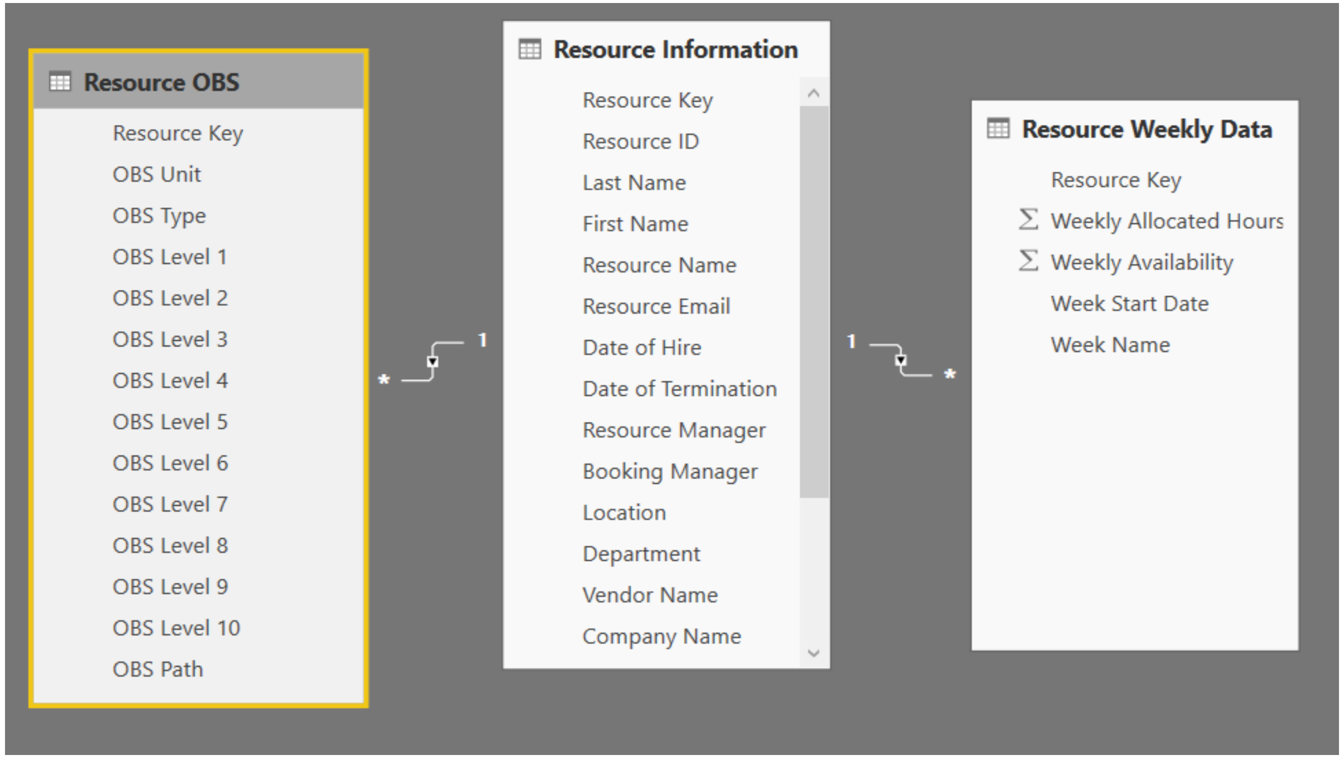
- Use first row as header
- Split the field or concatenate fields
- Replace values null with blanks
- Group data
- Pivot/unpivot columns
- Aggregate functions
- Format columns



Data Transformation

Data Modeling

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



Data Transformation - Advanced

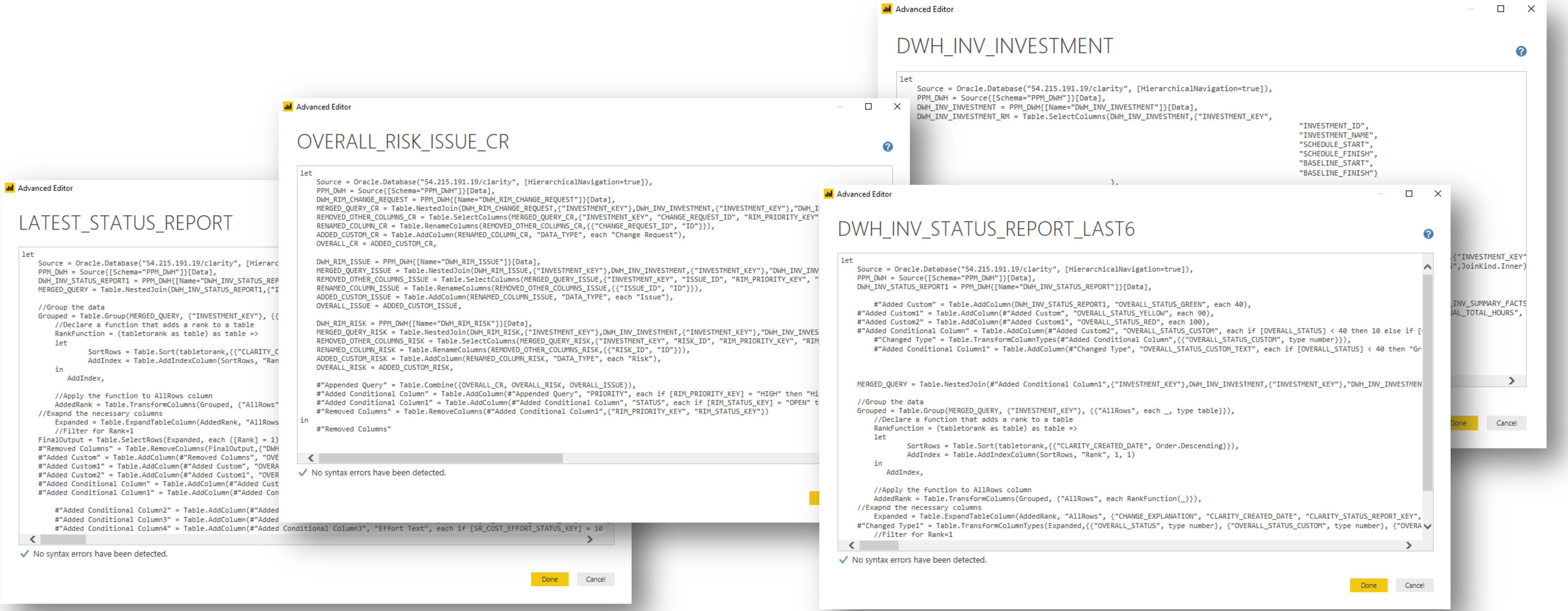
- Creating your Own M Script
- M Script Examples

Data Transformation - Advanced

Creating your own M script for your next advanced report

Data Transformation - Advanced

M Script Examples



Questions?

Surveys

Please take a few moments to fill out the class survey.
Your feedback is extremely important for future events.

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- Class Provider = **Rego Consulting**
- Class Name = **regoUniversity**
- Course **Description**
- Date Started = **Today's Date**
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- Training classes = **Technical**
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Let us know how we can improve!
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