

# Power BI Advanced User Training Guide

## Downloading Power BI

1. Go to <https://powerbi.microsoft.com/en-us/downloads/>
2. Complete the download either through the Microsoft Store or download manually by clicking Advanced download options and following the prompts in the wizard.

## Power BI Basic Features

1. Sign in with SU credentials.
2. Side panes allow you to apply filters and create new visuals.
3. Toolbars give you access to new data sources and the Power Query Editor.
4. The Data view allows you to see the tables in your dataset.
5. The Modeling view allows you to create relationships between entities.
6. The Power Query Editor is where you can transform, merge, and append your data based on report needs.

## Loading and Transforming Data

1. Select “Get data” and Excel as the data source.
2. Choose the downloaded example file and preview each of the four elements.
3. Click the check box next to Dataset and HS GPA and then Transform Data.
4. Remove the Last Updated column by right clicking on the header and selecting Remove.
5. Dynamically filter the data to a rolling 5-year window by duplicating the Academic Year column, extracting the first year value, and changing to a date data type. Apply a date filter to include the previous 5 years of data.
6. Convert the 0/1 Diverse Flag values to text by creating a Column From Examples.
7. Convert the 0/1 URM Flag values to text by creating a Custom Column and using the code for the previous step we created. Revise the code to fit the new column requirements.
8. Replace M with Male and F with Female in the Gender column.
9. Go to the HS GPA Query and remove the first four rows of the table.
10. Remove the top row and convert the new top row to a header.
11. Change the HS GPA column to a decimal number and remove error rows.
12. Merge the HS GPA Query into the Dataset Query using the SU ID. Expand the new HS GPA column.
13. Disable the load of the HS GPA Query.
14. Click Close and Apply to load the dataset into the report editor.

## Creating Summary Visuals

1. Create a table visual with the count of students by School. Notice that the total student count is incorrect and change the aggregation to a distinct count to fix it. Then create a distinct count measure to ensure that future visuals will show the correct total.
2. Change the table visual to a matrix and add the Department to the hierarchy below School.
3. Create a new measure to show the count of students with a GPA above 3.0 and add as another value to the matrix.

4. Add an additional measure to show the % of students with a GPA above 3.0 and use that to create some conditional formatting in the matrix.
5. Create a Stacked Column Chart.
6. Add a slicer for Academic Year and Term Group.
7. Create a Treemap for Gender, Diverse, and Age. You will need to create an age range column to use in the visual.
8. Create a Line Graph and adjust the sorting to show terms in chronological order.
9. Update the visual interactions to keep the slicers from filtering the Line Graph.
10. Add a filter to the entire report to restrict data to only certain class levels.

### Creating a Drill Through

1. Create a new report page and rename tabs.
2. Use a table visual to display the SU ID and various demographic fields.
3. Add the Distinct Count measure to the Drill Through section to activate it.

### Publishing and Power BI Service

1. Publish to My Workspace.
2. Open the report in PBI Service and test pinning a visual to a Dashboard.
3. Edit the report to add an additional slicer for the URM column.

### Using a Published Dataset as a Data Source

1. In PBI Desktop go to Get data and select Power BI datasets. Find the name of the published dataset and click OK. You are now ready to begin building a new report based on the dataset.