DATA MANIPULATION AND REPORTING WITH POWER BI

Contents

Power BI

Module 3

Purpose of this Lab

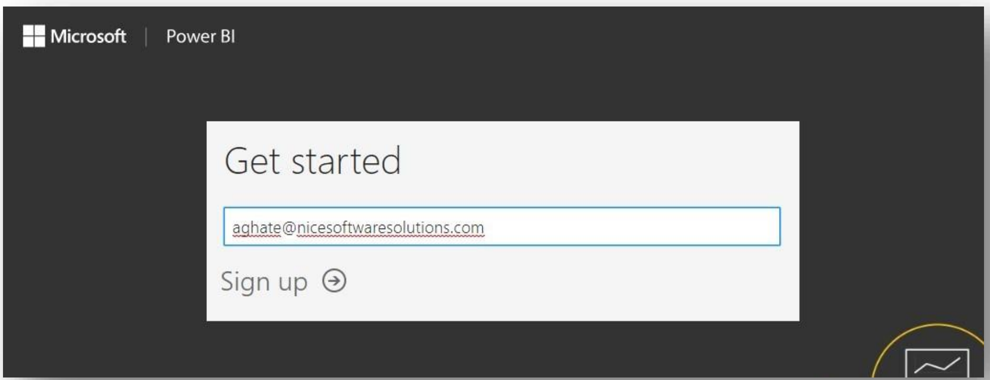
After completing this lab, you should be able to,

- Create your own service account.
- Publish reports on "My Workspace".
- Create a public link and embedder code for the published report.
- Create a new "App Workspace".
- Explore the "Quick Insights".
- Create a new "Dashboard" manually.
- Create a "Text" widget.
- Create an "Image" widget.
- Create a "Video" widget.
- Explore the "Q&A" option.

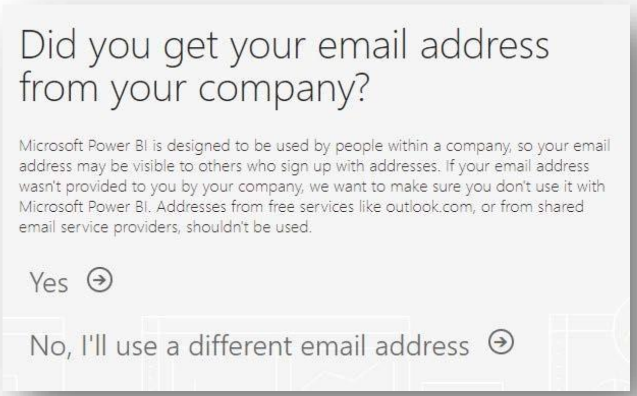
Publishing to PowerBI Service

Creating a Service Account

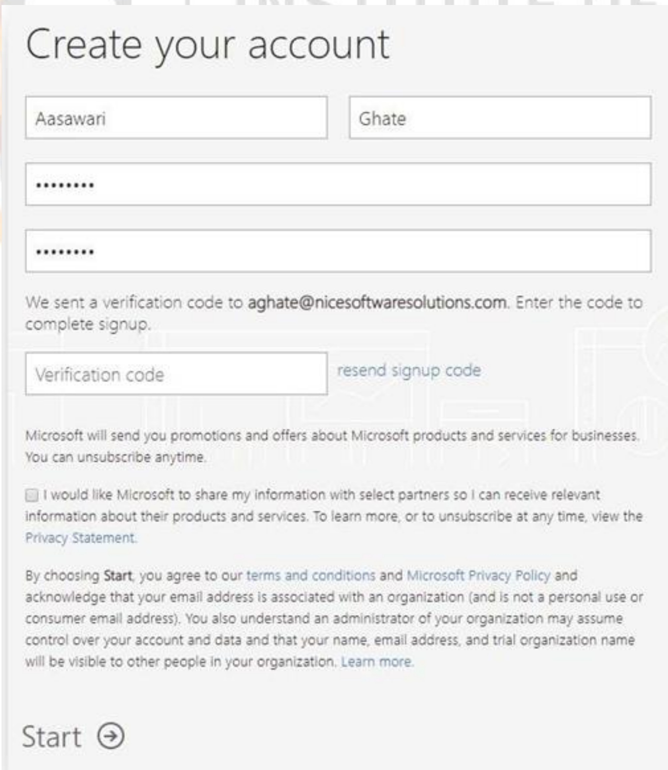
1. Navigate to the below mentioned URL and enter your official email address. Please note you cannot use a public domain email account (Gmail, Yahoo, Rediff etc.) for creating a PowerBI service account. It has to be a company domain email account.
   https://signup.microsoft.com/signup?sku=a403ebcc-fae0-4ca2-8c8c-7a907fd6c235&pbi_source=pbidesktop
2. Click on Sign up.



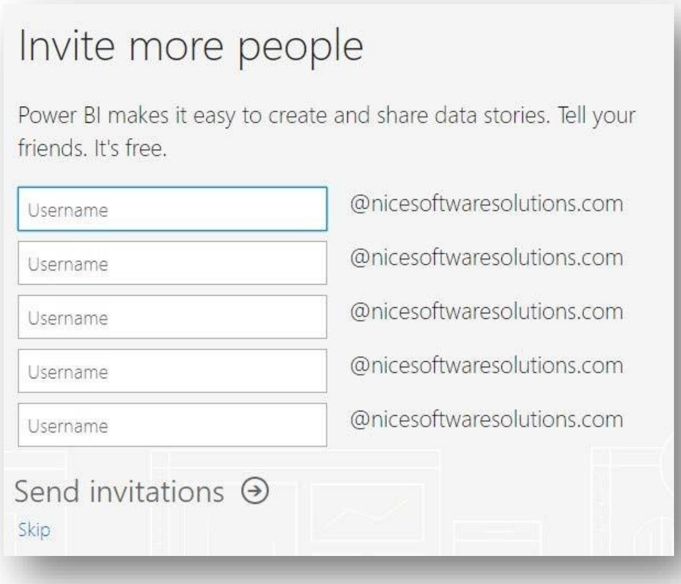
3. On the next screen, click on "Yes".



4. On the next screen, fill up the name fields and setup an appropriate password for the account.
5. Enter the verification code that might have been sent automatically by the system to you email account.
6. Click on “Start”.



7. On the next screen, click on “Skip”.

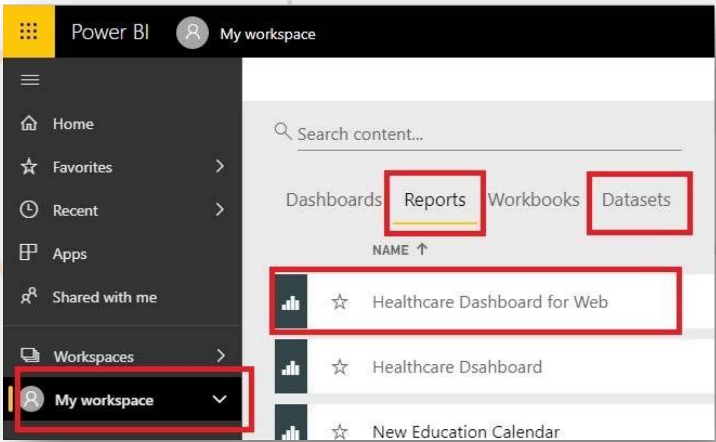


8. Once you reach the next page, you can close the browser and conclude that the account has been created.

9. To login to your service account open the below mentioned URL using a web browser and enter the credentials you just configured. https://powerbi.microsoft.com/en-us/landing/signin/

Publish and Share Reports

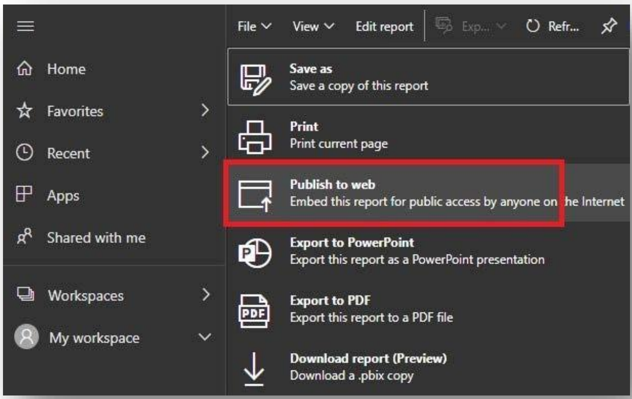
1. In PowerBI desktop, open the report you want to publish (created earlier).
2. From the “Home” menu, click on “Publish”.
3. Enter the email address using which you’ve created a PowerBI service account and click on “Sign in”.
4. Enter the “Password” and click on “Sign in” once again.
5. Select the “My workspace” and click on “Publish”. The report would start getting published (this will take some time).
6. After the upload is completed the system would show a success message with a link to navigate to your published report,click on that link and login to you service account using a web browser.
   You can also use the below mentioned direct link to login to our service account.
   https://powerbi.microsoft.com/en-us/landing/signin/
7. You’ll see your dashboard under “My Workspace”.
8. The report would appear under the “Report” and the “Dataset” tabs.



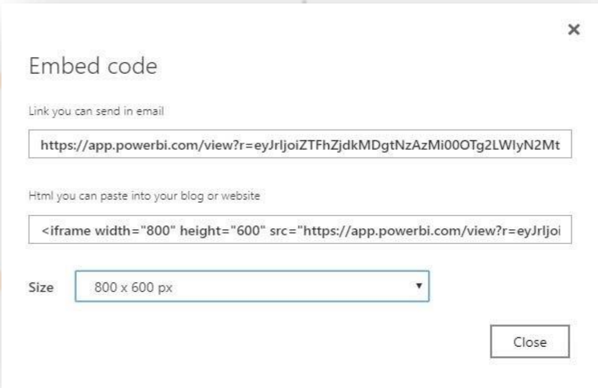
Create a Public Link

Login to your service account and execute a report. To tun a report,

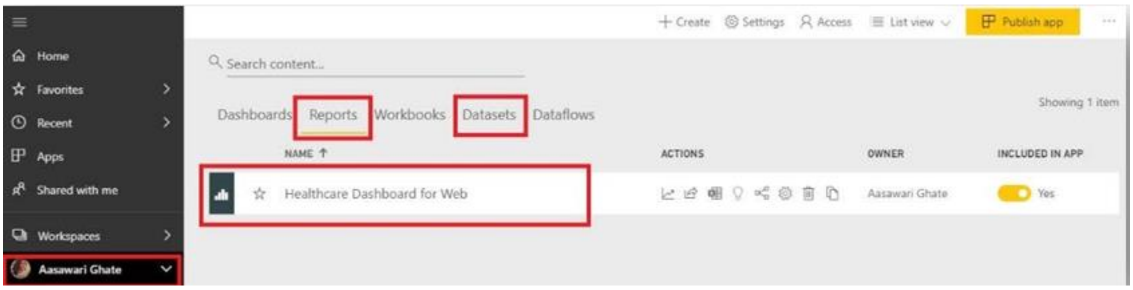
1. Click on the report name that’s appearing under the “Report” tab to execute it.
2. Once the report executes, click on the “File” menu and click on “Publish to web”.



3. The “Embed Code” window would come up where you’ll see two textboxes. One containing the public URL and the otherone containing an “Embed” code.



4. You can share the public URL with anyone within or outside the company and they’ll be able to run the report using a webbrowser without requiring a login. Similarly, using the embedder code one can embed the report into another portal / web page and it’ll look like as if the report is running in the portal itself.



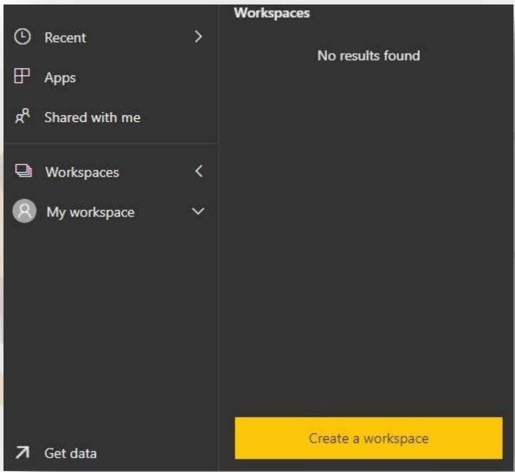
Create an App Workspace

Sign in into your free service account, using the URL

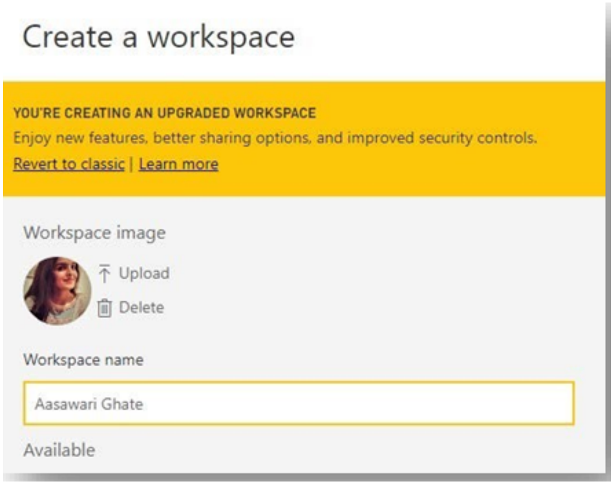
mentioned below.https://powerbi.microsoft.com/en-us/landing/signin/

Every PowerBI service account contains a “My workspace” by default (which is a private workspace). You can also create an “App workspace” which is public in nature. Access to contents published on a private workspace cannot be granted to other users.
However, the same can be done with an App (public) workspace. To create a new “App workspace”, follow the below mentioned steps.

1. Navigate to the “Workspaces” menu and click on “Create a workspace”.



2. If the system prompts you to upgrade the account to a Pro account, please choose the trial version which lasts for 60days.
3. Once done, you might have to click on “Create a workspace” one more time.
4. Once the workspace creation window appears,
   a. Upload a profile image of your choice which is less than 45kb of size (optional).
   b. Enter a workspace name (should be unique and not used by other users. It’s a mandatory field of course).

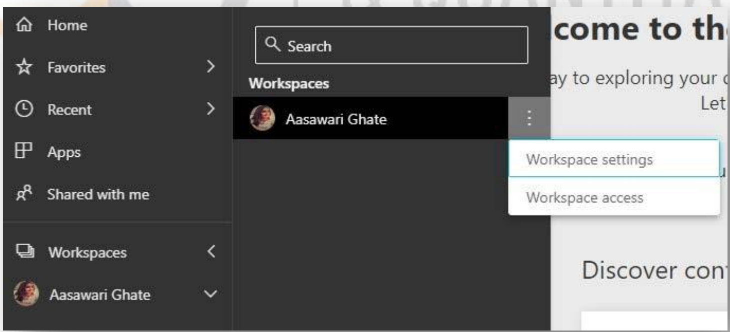


c. Click on "Save". This would create a new App workspace for you.

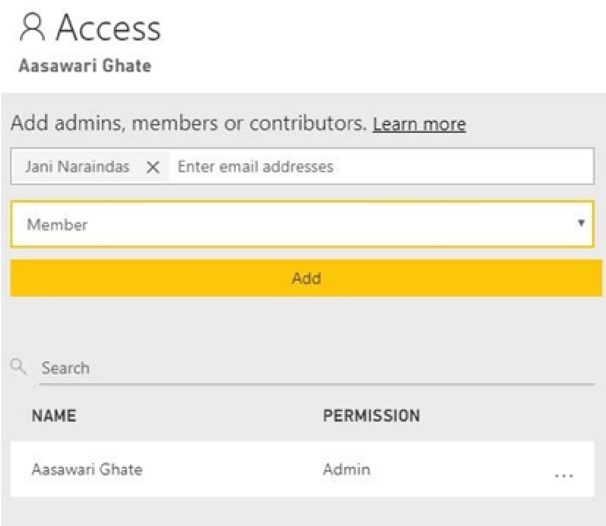
Grant Access on Workspace

To grant access to other users on this workspace, follow the below mentioned steps.

1. Expand the "Workspaces" option, click on the ellipsis icon next to the workspace you just created and select "Workspace access".



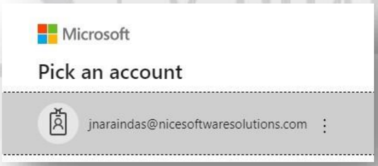
2. On the "Access" screen, search for the account name to whom you'd like to grant the access. Please note, you'll be able to search only those accounts that belongs to the same domain as your own. In other words, only those service accountsthat are created with an email account belonging to your own company's domain.
3. Choose an appropriate access permission and click on "Add".



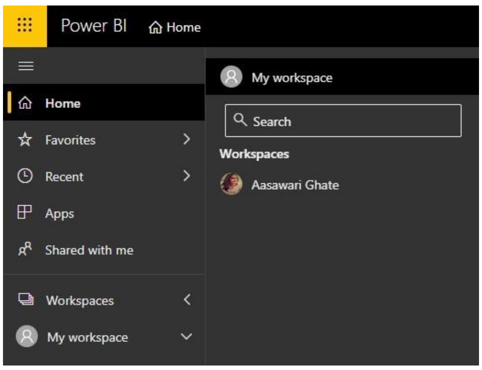
4. Click on “close”, once done.

Now this workspace should be visible (in the list of workspaces on the service account) to whom you’ve granted access. What all that user would be able to do on this workspace (publish content, edit published content etc.), depends on the permission you’ve granted. To confirm this,

1. Login to the service account as the user to whom workspace access has been granted.



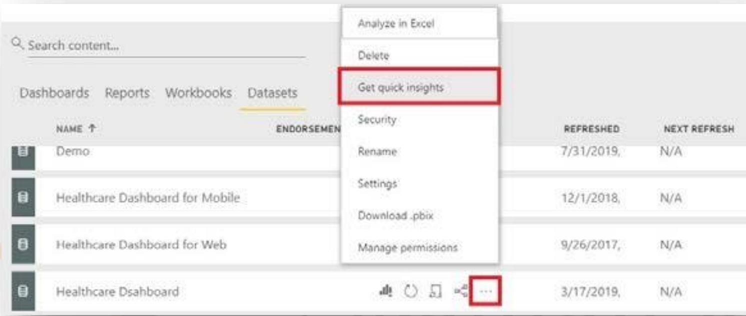
2. Expand the “Workspaces” section.
3. You should be able to see the workspace for which access has been granted to the user.



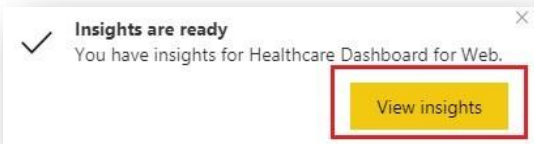
View Quick Insights

PowerBI can create auto generate visuals based on a modelled dataset. This is a part of artificial intelligence where the system scans through your data model and figures out a set of dimensions and measure that can be used to visualize the data in the best possible way. Eventually you might want to create the visuals on your own and format them in a way you want to. However, this can give your analysis, a good starting point. To create quick insights,

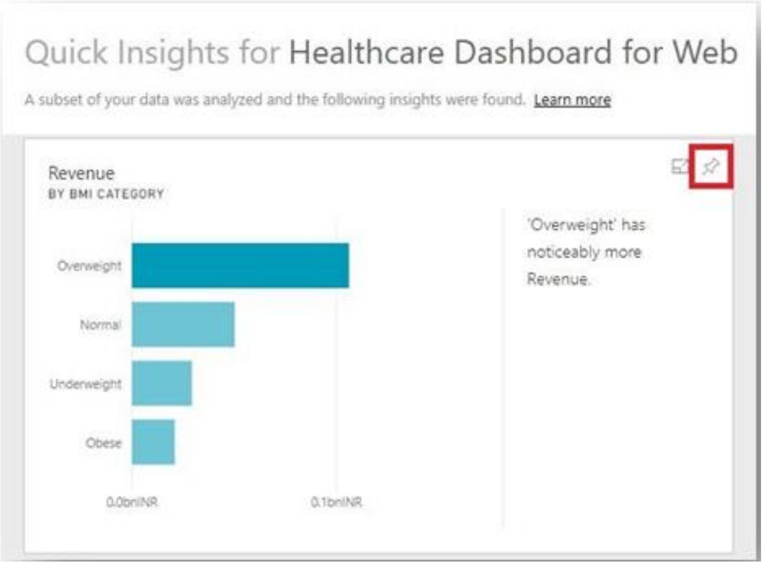
1. Login to your service account.
2. Click on “My Workspace” and navigate to the “Datasets” tab.
3. Next to your report name, under the “Actions” column, you’ll find a “More Options” icon.



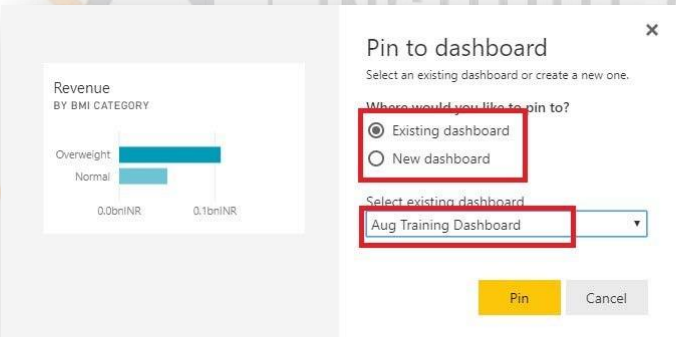
4. Click on that and select “Get Quick Insights”.
5. Once the system creates the insights and the success message is shown.



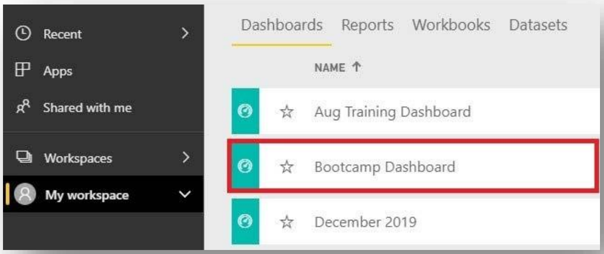
6. Click on “View Insights” to view the series of visuals automatically created by the system.
7. Please note “Quick views” are created for a temporarily view. In simple words, they’re not stored anywhere. You can retain the visuals by pinning them in a Dashboard. To do this, just click on the icon on the top-right corner of any visual (screenshot shown below).



8. Once the "Pin to dashboard" window comes up, you can either choose and existing dashboard name to pin the visual orcreate a new dashboard on the fly and pin the visual in it.



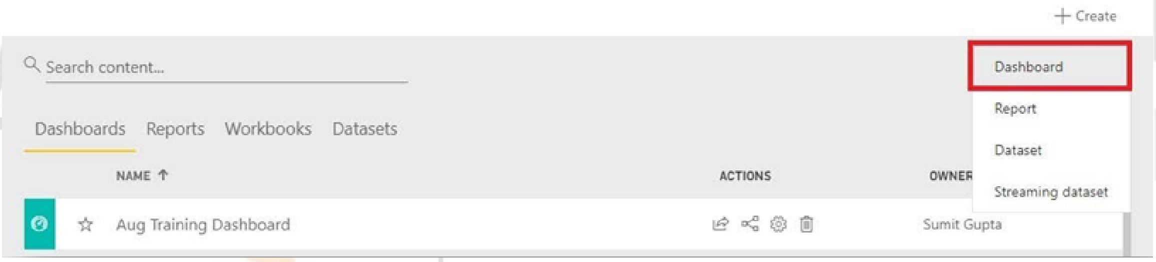
9. Similarly, you can navigate to any report and pin any of it's visual as well to a dashboard. This is also a typical method of creating a new dashboard. Once the dashboard is created (if new dashboard option is chosen while pinning), it appears under the "Dashboard" tab of the workspace.



10. To execute the dashboard, just click on it and you'll be able to see the visual you just pinned.

Creating Dashboards

1. The only other way to create a new dashboard is to navigate to the "Dashboard" tab.
2. Click on the "Create" button that appears on the top-right corner of the screen and choose "Dashboard".



3. Enter a name for the new dashboard and click on "Create".

4. The newly created dashboard should appear under the "Dashboard" tab in your workspace.

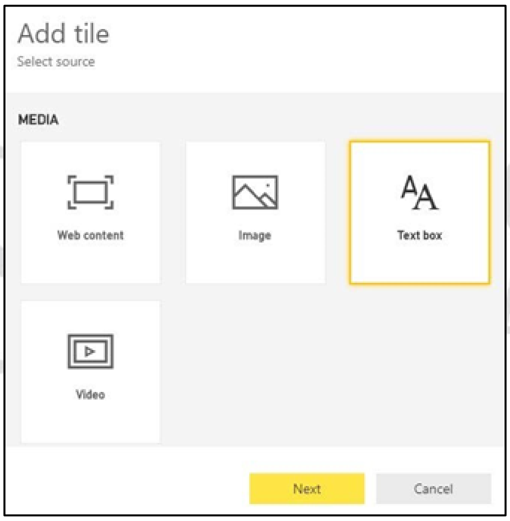
Please note when you create a new dashboard, it just remains as an empty container. Unless you pin any visuals in there, there won't be anything to view in it.

Adding Text Widget

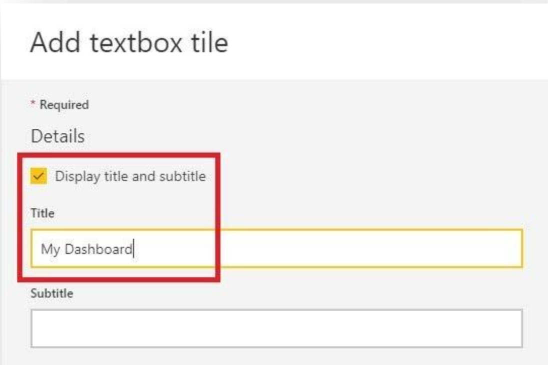
Follow the below mentioned steps to add a text widget in an existing dashboard.

1. Login to your service account.
2. Navigate to a workspace of your choice and execute the dashboard you might have created earlier.
3. Click on “Add tile” from the menu at the top.

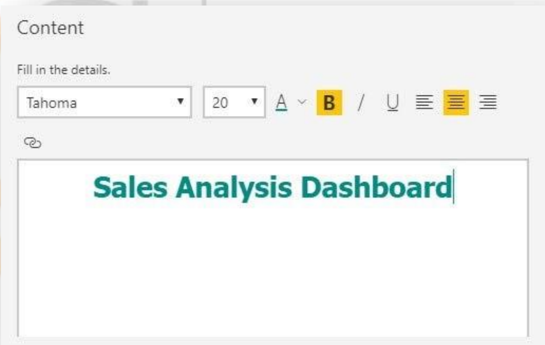
4. On the “Add tile“ screen, select “Textbox” and click on “Next”.



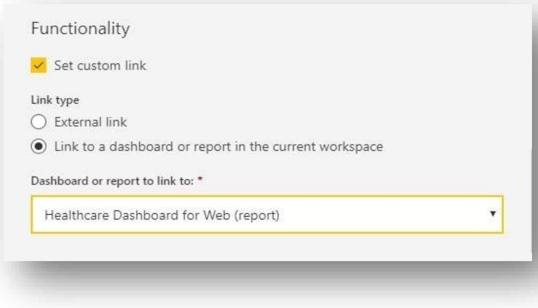
5. On the “Add textbox tile” screen, to add a title to your textbox, check the checkbox called “Display title and subtitle”.
6. Add a title of your choice in the textbox below (e.g. My Dashboard).



7. Under the “Content” section, enter the text that you want show in your final textbox (e.g. Sales Analysis Dashboard). You can also format the text using the format text toolbar appearing at the top.



8. You can also use this text widget as a link to make the user navigate to,
    a. An external link (e.g. www.google.com) or
    b. Another report/dashboard residing in your service account.
9. To enable this option, check the checkbox called as “Set custom link”.
10. From the “Link type” options, choose either,
    a. “External link” and type the URL where you want the user to get redirected.
    b. “Link to dashboard” and choose a report name from the list of existing reports.

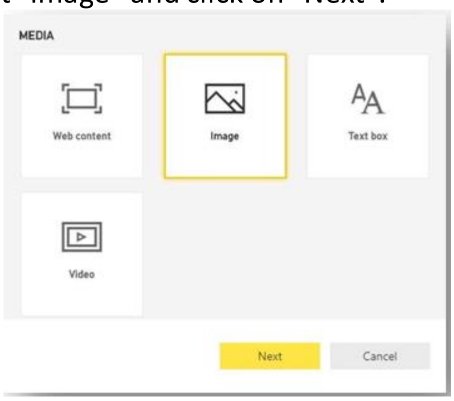


11. Click on “Apply” to create the text widget.
12. Once the widget is created, you can reposition and resize it as per your choice.

Adding Image Widget

Follow the below mentioned steps to create an image widget.

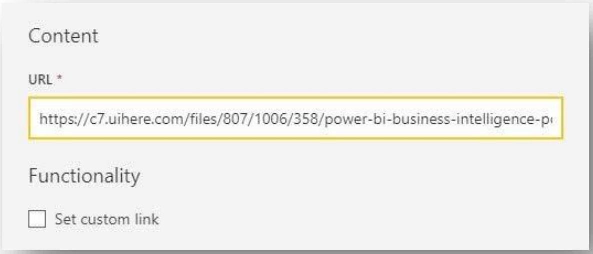
1. Click on “Add tile” to bring up the “Add tile” window.
2. On the “Add tile” window, select “Image” and click on “Next”.



3. Under the “Content” section, enter an image URL in the textbox below. Please note the URL must be anonymous in nature.

(e.g. https://i.pinimg.com/originals/54/fa/78/54fa78153fb59bce14106fb927acde37.png)

4. Once again, you can enable a custom link for this image in the same way as mentioned few steps back.

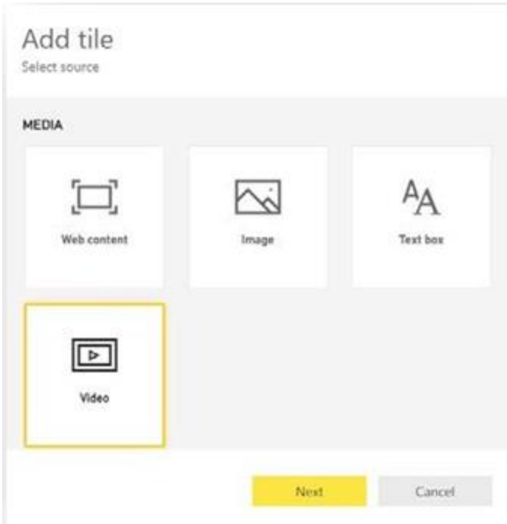


5. Click on “Apply” to create the text widget.
6. Once again, this widget can be repositioned and resized as per your choice.

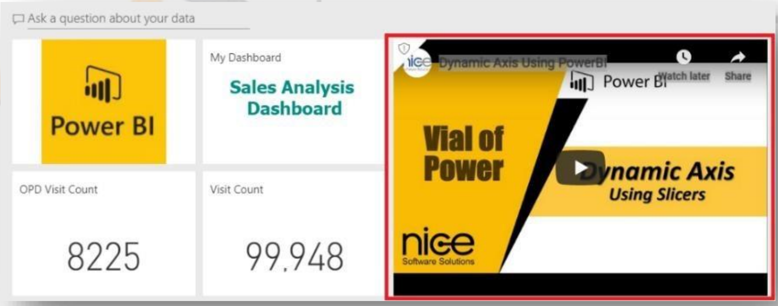
Adding Video Widget

Follow the below mentioned steps to create a video widget.

1. Click on “Add tile” to bring up the “Add tile” window.
2. On the “Add tile” window, select “Video” and click on “Next”.



3. Under the “Content” section, enter a Youtube or Vimeo video link(e.g. https://www.youtube.com/watch?v=JxmTI9AUFJg&t=3s)
4. Click on “Apply” to create the video widget.

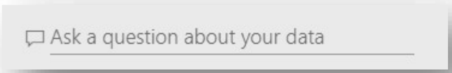


5. Click on the video to play it in your dashboard.

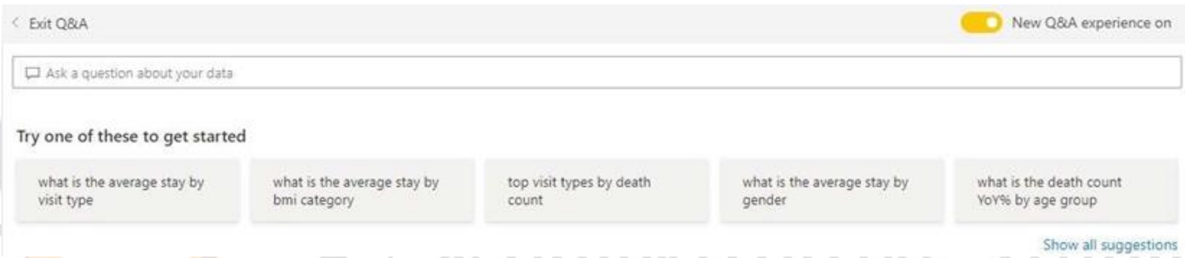
Explore Q&A

PowerBI gives you this amazing option called “Q&A” where you can simply type English sentences and the system convertsthem into a SQL statement and returns you a visual which can be pinned to a dashboard. To explore this option,

1. Click on “Ask a question about your data”.

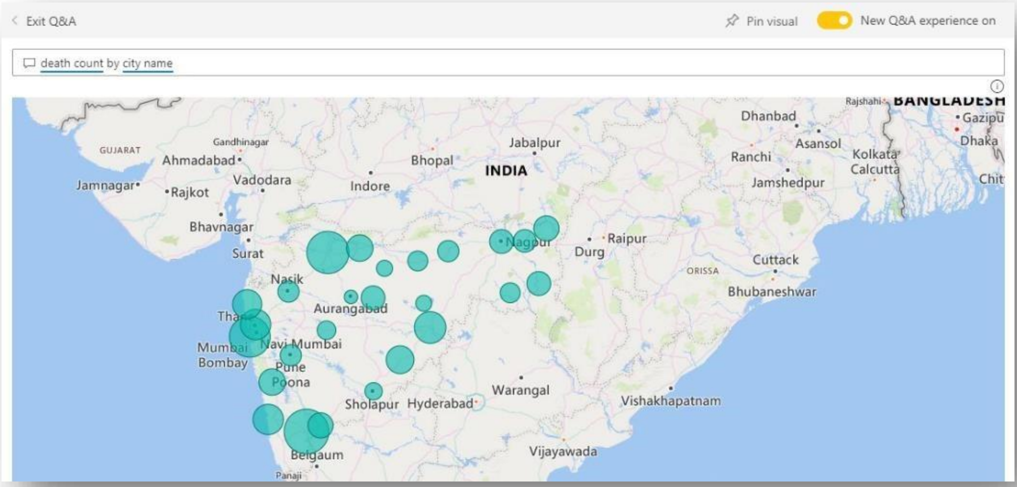


2. Once you reach the “Q&A” screen, the system shows a textbox where you can type your statement. The system also givesyou an option to choose from the list of suggested statements as shown in the screenshot below.

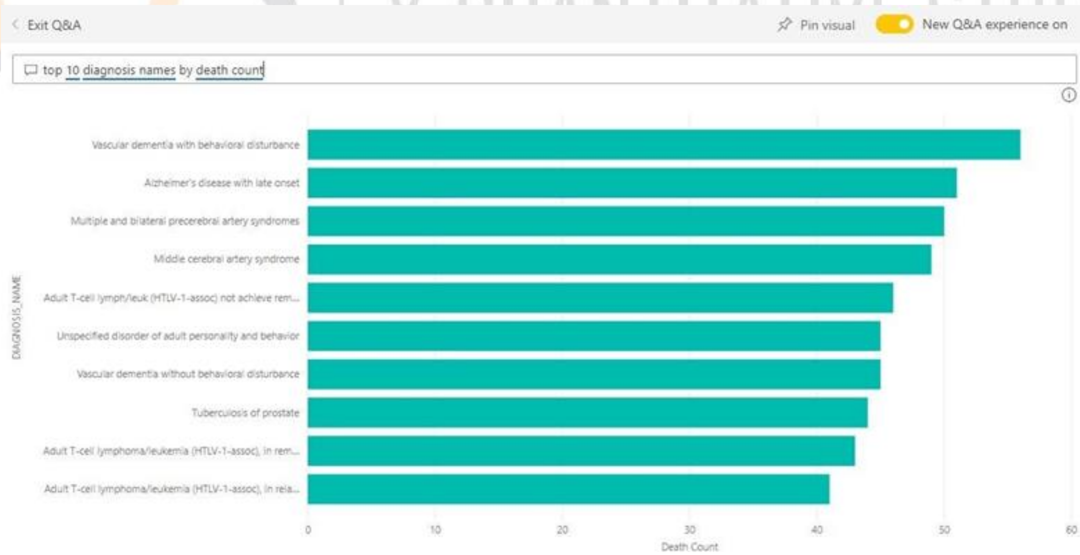


3. Try typing the following statements for practice.
    a. “Death count” – this should return a card visual showing the total death count.

    b. “Death count by city name” – this should return a Map visual plotting all the city names as bubbles on it. Moreover, the bubble size would be controlled by the death count.



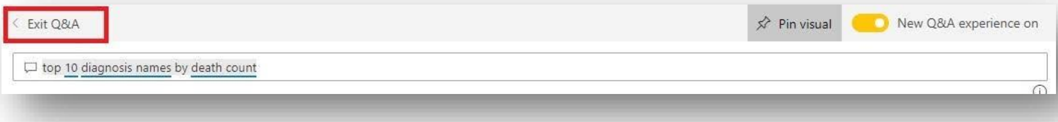
c. “Top 10 diagnosis names by death count” – this should return a clustered bar chart showing the disease names by death count. The visual would also have a top10 filter applied on it. Moreover, it also would be sorted in an ascending order by death count.



4. To pin the last visual on a dashboard, click on the “Pin visual” button on the top right corner of the screen.
5. A new screen would popup from where you can choose an existing dashboard where you’d

like to pin this visual. Alternatively, you may also create a new dashboard, on the fly and pin the visual there. By default, this screen would show the existing dashboard pre-selected.

6. Leave everything to default for now and click on “Pin”.
7. Now from the top left corner of the screen, click on “Exit Q&A” to go back to the dashboard we were working on.



8. The pinned visual should appear on the dashboard like any other existing visuals.