#### **Dayanand Shivraj Tekale**

## Que1. What is Custom visualization? and explain Answer:

- -Power BI visuals can be obtained from three main sources:
- -Default visuals are readily available on the visualization pane.
- -Visuals Imported from Microsoft AppSource or Power BI.
- -Create our own Custom Visuals

#### -Default:

- -Power BI comes with many out-of-the box Power BI visuals. These visuals are available in the visualization pane of both Power BI Desktop and Power BI Service, and can be used for creating and editing Power BI content.
- -To remove a Power BI visual from the visualization pane, right-click it and select unpin.
- -To restore the default Power BI visuals in the visualization pane, click the ellipsis and then select Restore default visuals.

#### -AppSource:

-AppSource is the place for apps, add-ins, and extensions for your Microsoft software. AppSource connects millions of users of products such as Microsoft 365, Azure, Dynamics 365, Cortana, and Power BI, to solutions that help them get work done more efficiently and insightfully than before.

#### -Custom Visualization:

- -We can also develop our own Power BI visual, to be used by we, our organization, or the entire Power BI community.
- -Power BI visuals are packages that include code for rendering the data served to them. Anyone can create a custom visual and package it as a single .pbiviz file, that can then be imported into a Power BI report.
- -To import a Power BI visual from a file, If We are a web developer and are interested in creating our own visual and adding it to AppSource.
- -An IAP Power BI visual is a free visual that offers free features. It also has some advanced features that are available for a fee.

-In the Power BI visual's description, developers must notify users about the features that require additional purchases to operate. Currently, Microsoft doesn't provide native APIs to support the purchase of apps.

## Que2. Why typescript is required? Answer:

- Contains JavaScript & TypeScript object models for Microsoft Power BI JavaScript SDK.
- -For each model there is a TypeScript interface, a json schema definitions, and a validation function to ensure a given object is a valid model.
- -This presentation is about how to create custom visuals (components) for our PowerBI reports.
- -Power BI reporting features could be extended with custom components, that developers can implement and BI specialist can include in their dashboards.
- -Many visuals are also availabe in the Power BI Visuals Gallery.
- -Power BI is flexible with which graphical API our prefer to use, but their open source project is all D3.
- -D3.js is a JavaScript library of objects to produce sophisticated, interactive, dynamic data visualizations using modern web-based technologies.
- Set up the dev environment (using PowerBI visuals CLI tool)
- Build our visuals
- Debug our Power BI components
- Use custom visuals in our dashboards
- Publish visuals to Power BI Visuals Gallery
- Road-map of Power BI Visuals API

#### Que3. Explain powerBi Mobile

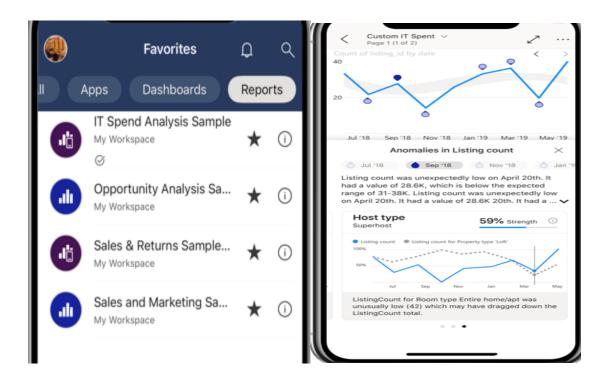
#### Answer:

-Power BI offers a set of mobile apps for iOS, Android, and Windows 10 mobile devices. In the mobile apps, we connect to and interact with our cloud and on-premises data.

#### -QR Codes:

-Create a QR code for a report, or a tile in a dashboard, and put the QR code anywhere we want. When our colleagues scan the code with their iPhones, Android phones, or the Power BI

for Mixed Reality app, they see the tile we have associated with that QR code. On an iPhone, they see the tile in augmented reality.



#### -Filter by Location:

- -Categorize geographical data in a report in Power BI Desktop. Then our colleagues view that report in the Power BI mobile app for iOS, Power BI automatically provides geographical filters that match where they are.
- -Offline We can see Data:
- -While we are offline, we can access and interact with dashboards we have accessed previously from the mobile app.
- -We also have read-only access to any Power BI reports you've accessed previously from the mobile app.
- -We can see the full report, but not filter, cross-filter, sort, or use slicers on it.

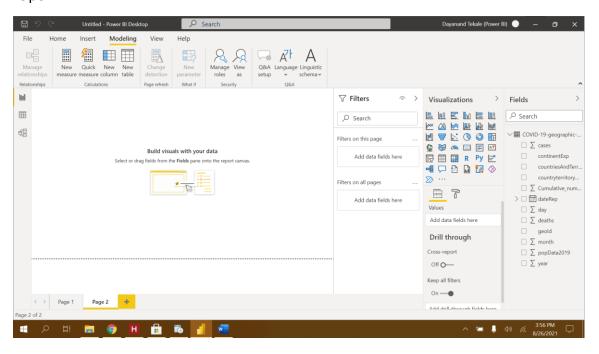
### -Limitations:

-Power BI can cache up to 250 MB of data offline.

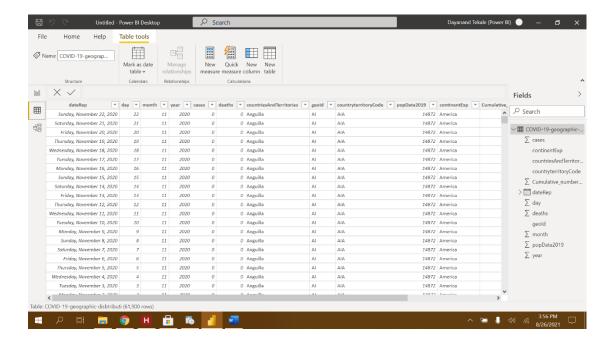
- -Some tile types require an active server connection, so they aren't available offline; for example, Bing map tiles and some custom tiles.
- -Whole Excel workbooks in Power BI aren't available offline.
- -We can see Reporting Services mobile reports and KPIs offline, if we have viewed them while connected. They don't refresh in the background. They refresh every time we open them.
- -In the Power BI mobile apps, we can't see Power BI Desktop (.pbix) files saved to Power BI Report Server.
- -Paginated reports (RDL) are not available while the network is offline.

# Que4. Making use of quick measure calculate sum, Average, percentage difference of covid data and attach all the screenshots Answer:

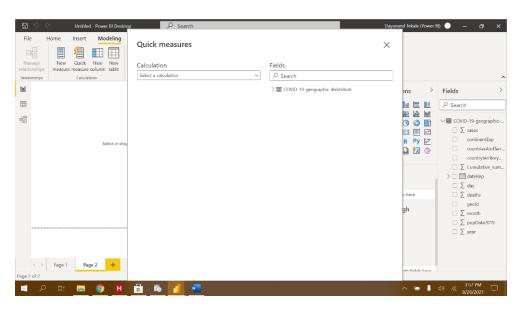
- -Go to PowerBi Desktop
- -Open



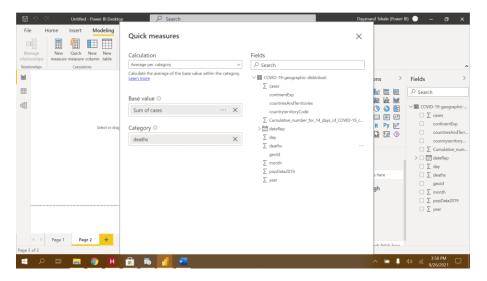
-Upload data



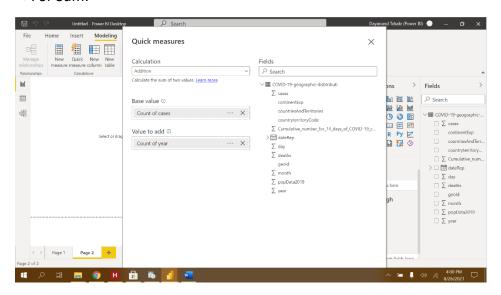
- -Go to Modelling
- -Quick measure



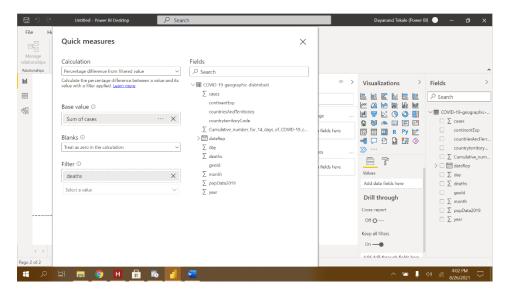
- -fill the sheet calculation
- -Base value
- -Categeory
- => For Average



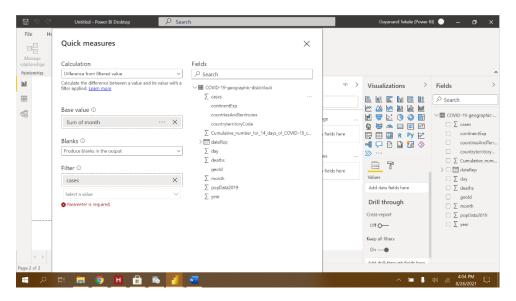
- -Drag and Drop from Data sheet uploaded data showing on same page -Right side
- -then ok
- =>For Sum:



- -Drag and Drop from Data sheet uploaded data showing on same page -Right side
- -then ok
- =>For Percentage:



- -Drag and Drop from Data sheet uploaded data showing on same page -Right side
- -then ok
- =>For Difference:



- -Drag and Drop from Data sheet uploaded data showing on same page -Right side
- -then ok
- -Go to the Dashboard
- -See the Calculated fields are there
- -Drag any visualization
- -We Will get quick output on the basis of Calculation

- -We can visualize the Chart directly from here
- -we will get output
- -We can Calculate Many fields with the help of data
- -This is how to calculate the Some Fields