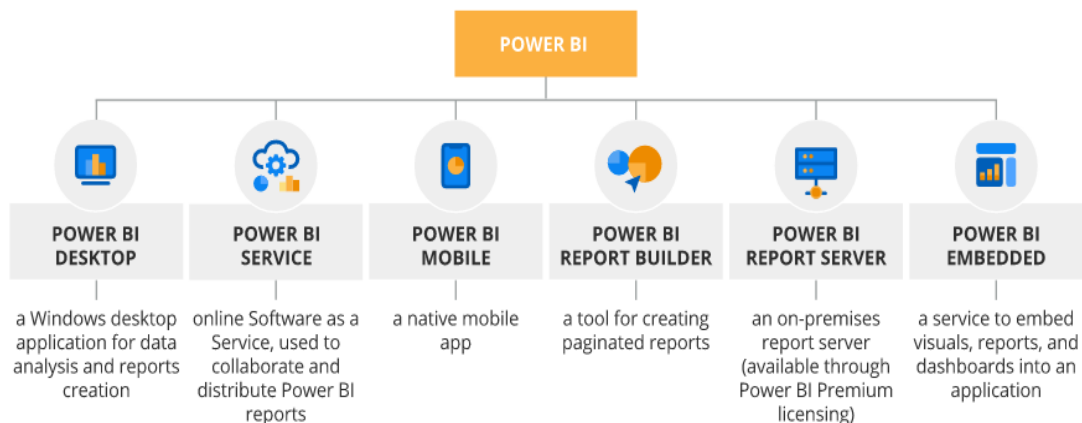

Power BI Assignment 3

1. List and explain different PowerBI products?

Solution:

Microsoft Power BI is a collection of tools used to import, aggregate and present data in the form of immersive and easy-to-digest reports and visuals.



- Power BI Desktop

Power BI Desktop is a development tool for Power Query, Power Pivot, and Power View. With Power BI Desktop, you have everything under the same solution, and it is easier to develop BI and data analysis experience.

- Power BI Service

Power BI service is the Software as a Service (SaaS) part of Power BI. It is also known as Power BI Online. To access Power BI Service, you need to log in to Power BI service.

It allows you to connect to data, create reports and dashboards, and ask questions about your data.

- Power BI mobile apps

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

- Power BI Report Builder

Power BI Report Builder is a tool for authoring paginated reports that you can publish to the Power BI service. Paginated reports are designed to be printed or shared. They're formatted to fit well on a

page, and they display all the data in a table, even if the table spans multiple pages.

Microsoft Power BI Embedded (PBIE) allows application developers to embed stunning, fully interactive reports into their applications without having to build their own data visualizations and controls from scratch.

2. What limitations of Excel, Microsoft solved by PowerBi?

Solution:

Excel has limitations in the amount of data it can work with. In contrast, Power BI can handle much larger amounts of data. Power BI can connect to a large number of data sources, while Excel's connectivity capacity is limited. Also, unlike Excel, Power BI can be easily used from mobile devices. Some key features of PowerBI are as follows

- Power BI can connect hundreds of data sources to get data using native connectors or partner connectors compare to Excel can connect less than hundred data sources to get data.
 - Power BI is very efficient at processing and analyzing very large data sets(millions of rows) where as Excel can be slower and less performant compare to Power BI for same large dataset.
 - Power BI UI is great self service UI compare to Excel where as Excel offers familiar UI consistent with other Office products.
 - Power BI has Q & A and Functions to consume Azure Text Analysis which can be deal breaker not only when Power BI compared to Excel but also other BI players like Tableau, Looker etc.
 - Power BI has plethora of visuals both native and third party which just make Business Intelligence a lot easier compare to Excel. I have seen some partners have done amazing job
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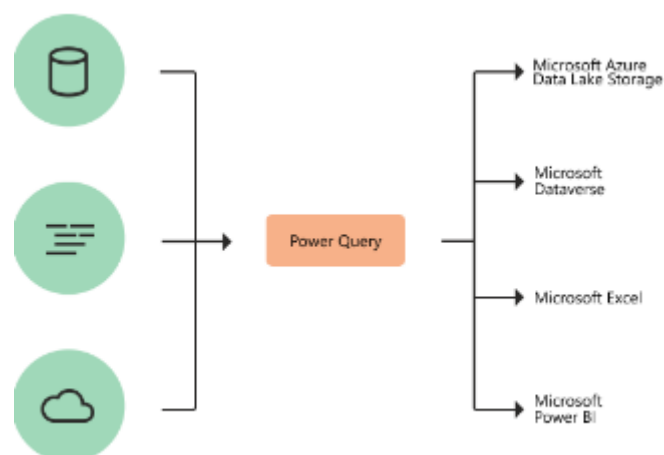
to offer extend visualizations in Excel but Power BI would stand out for design elements and modern look and feel.

- Excel is part of Office 365(Microsoft 365) and Office Install so it is cheaper option when compared to Power BI's Pro or Premium service and other licensing needs.
- Power BI is part of Microsoft 365 (Premium E3, E5, Business) or as a standalone license (with some prerequisite) and inherits security and identity infrastructure of Azure AD and Groups and Workspaces which makes it very efficient, secure and trustworthy way to handle data in more simple and complex implementations alike. Excel does inherit some of it but Excel is not meant to be used as Self Service BI so it would never be positioned to compete with Power BI.

3. Explain PowerQuery?

Solution:

Power Query is a data transformation and data preparation engine. Power Query comes with a graphical interface for getting data from sources and a Power Query Editor for applying transformations. Because the engine is available in many products and services, the destination where the data will be stored depends on where Power Query was used. Using Power Query, you can perform the extract, transform, and load (ETL) processing of data.



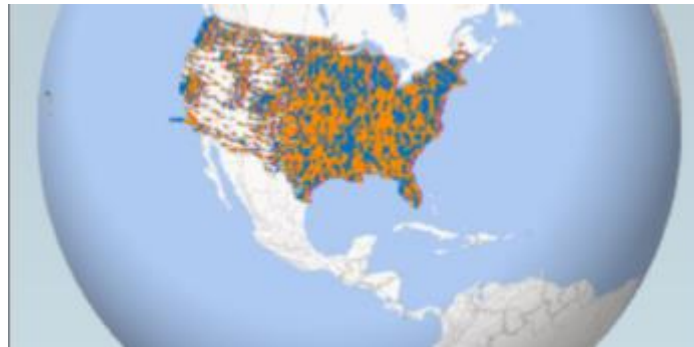
Business users spend up to 80 percent of their time on data preparation, which delays the work of analysis and decision-

making. Several challenges contribute to this situation, and Power Query helps address many of them.

4. Explain PowerMap?

Solution:

Microsoft Power Map for Excel is a three-dimensional (3-D) data visualization tool that lets you look at information in new ways. A power map lets you discover insights you might not see in traditional two-dimensional (2-D) tables and charts.



With Power Map, you can plot geographic and temporal data on a 3-D globe or custom map, show it over time, and create visual tours you can share with other people. You'll want to use Power Map to →

Map data: Plot more than a million rows of data visually on Bing maps in 3-D format from an Excel table or Data Model in Excel.

Discover insights: Gain new understandings by viewing your data in geographic space and seeing time-stamped data change over time.

Share stories: Capture screenshots and build cinematic, guided video tours you can share broadly, engaging audiences like never before. Or export tours to video and share them that way as well.

5. How powerBi eliminated the need to host SharePoint Server on premises?

Solution:

SharePoint is an important part of how many organizations organize and distribute BI content to users. In recognition of how important this approach is, we've invested in modernizing and

creating deeper integrations with SharePoint. Over the last year, Microsoft have introduced the Power BI webpart for SharePoint Online and an updated Reporting Services Report Viewer webpart for SharePoint on-premises. Customers like the flexibility this gives them to build highly-customized SharePoint experiences using their BI content.

- Adding support for all major report types across both platforms. In the coming weeks, we'll have the first public preview of Paginated (RDL) reports in Power BI Premium, giving customers full support for Paginated Reports, Power BI Reports and Excel Workbooks in Power BI.
 - Providing easier ways to report on your data in SharePoint. We've recently announced new functionality to make easier than ever to start visualizing your Excel tables and CSV files stored in SharePoint Online in Power BI.
 - Additionally, for Power BI Report Server, we're adding some new features that already exist in Power BI, but were previously available only through SharePoint integration for on-premises deployments. These include –
 - Power Pivot Scheduled Data Refresh. We first added support for Excel Workbooks in Power BI Report Server in October 2017, including the hosting and viewing of Excel Workbooks containing data models. We'll be expanding this support to include scheduled data refresh of these workbooks.
 - Modern Authentication support. Security considerations are a key part of any BI deployment strategy, and many customers used SharePoint to handle claims-based authentication scenarios for their users. We're adding native support for ADFS/AAD authentication to Power BI Report Server in an upcoming release.
 - To help with migration scenarios, the team will be offering additional documentation, blog posts and other product capabilities as we move towards the GA of SharePoint 2019. We'll also
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continue to fully support the previous versions you've deployed throughout their product support lifecycle.

6. Explain the updates done in Power BI Service(power BI 2.0) as compared to older version ?

Solution:

The following updates are new to Power BI Desktop:

Reporting

Unshared and unsynchronized axes for small multiples charts

Controlling and customizing labels on Azure Maps

Create dynamic slicers using field parameters

Composite models over Power BI datasets and Analysis Services (Preview)

Modeling

Streamline your report authoring experience with Optimize ribbon (Preview)

New DAX function: EVALUTATEANDLOG

New DAX functions: TOCSV and TOJSON

Data connectivity

Many updated data connectors

Note

See the data sources available to Power BI Desktop. Our list is always growing, so check back often.

Visuals

New visuals in AppSource

Others

Power BI Desktop infrastructure update (WebView2)

New Power BI color accent
