

In collaboration with IBM **SkillsBuild** 

SkillUp Online in collaboration with IBM SkillsBuild Presents

# Data Fundamentals Guided Learning with Capstone – Third Technical Session







# **Agenda**

- What is Tableau?
- Features of Tableau
- Tableau Products
- Tableau file types
- Tableau data connections
- Data Analytics in Tableau
- Activity: Hands-On Data Analytics Tableau LAB
- Quiz





#### What is Tableau?

- Tableau is a business intelligence tool with interactive data visualization features
- Gartner places Tableau in the Leaders Quadrant in the Business Intelligence Tools
- User friendly and easy to learn



#### What is Tableau?

- Tableau Desktop version can be downloaded freely from the Tableau website
- The downloaded version after installation will work free of cost with full capabilities for 14 days
- Use of the software after 14 days is possible only after buying the license from the company



#### **Features of Tableau**

- **Queries** relational databases, online analytical processing cubes, cloud databases, and spreadsheets
- **Generates** graph-type data visualizations.
- **Extract, store, and retrieve** data to and from an in-memory data engine. A subset of data can be extracted to improve performance
- Plots latitude and longitude coordinates and connect to spatial files to build custom mapping



#### **Tableau Products**

Tableau Desktop: Professional and personal editions

**Tableau Server:** Online hosting platform for tableau workbook, data sources, etc.

**Tableau Online:** for sharing analytics online

**Tableau Prep:** Data preparation tool

Tableau Public: free to use, with limited functionalities

Tableau Reader: free to use, only for viewing tableau output

**Tableau Mobile:** for use on mobile platform



# **Tableau Reports**

#### **Tableau provides three formats for its output**

- Views: Individual chart objects
- Dashboards: Different views that share a common theme brought together in a single screen. Dashboards are dynamic and the different views in the same dashboard are synchronized in such a way that a filter or parameter applies to all the views simultaneously
- **Stories:** Different views or dashboards strung together in a sequence with appropriate captions to run like a presentation



## Tableau file types

Tableau workbook (.twb):

Contains data of all workbook elements but does not carry source data

Tableau packaged workbook (.twbx):

Contains data of workbook elements and source data

Tableau data source (.tds):

Contain all the necessary information regarding a data connection made in Tableau. Does not save the actual data

Tableau packaged datasource (.tdsx):

Contains data of all workbook elements but does not carry source

Tableau data extract (.tde):

Stores a local copy of the data extracted from its source

Tableau book mark (.tbm):

Used to save and share worksheets



#### **Tableau data connections**

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#### Connect

To a File

Excel

Text file

Access

JSON file

PDF file

Spatial file

Statistical file

To a Server

OData

More...

Traditional file formats: Excel, text, Access, PDF etc.

Java Script Object Notation (JSON) files

Spatial file types like Shapefiles, MapInfo tables, KML, GeoJSON, TopoJSON, Esri etc.

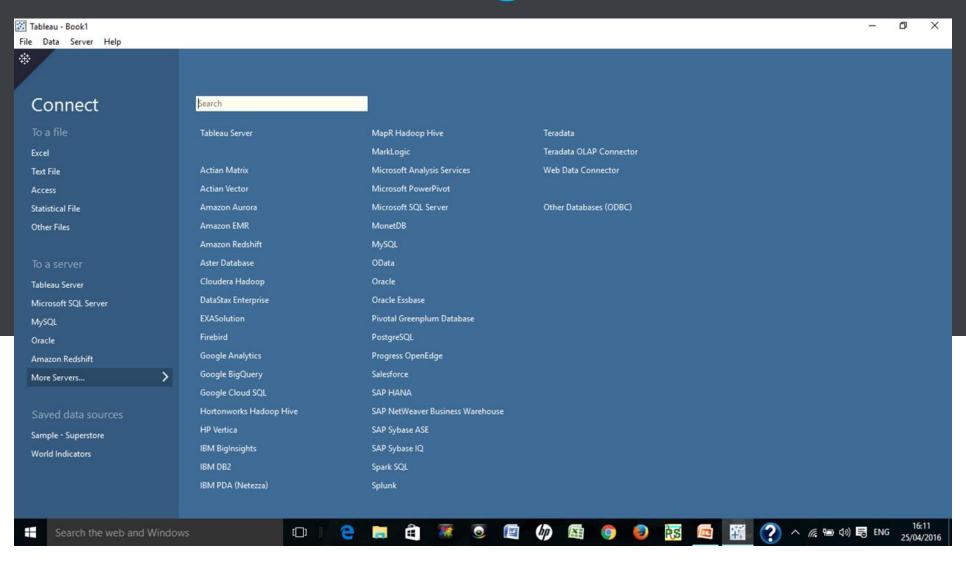
Statistical files from statistical software platforms like SPSS, R etc.

Open Data Protocol (Odata) – data in storage

Other formats like Oracle, Google sheets etc.



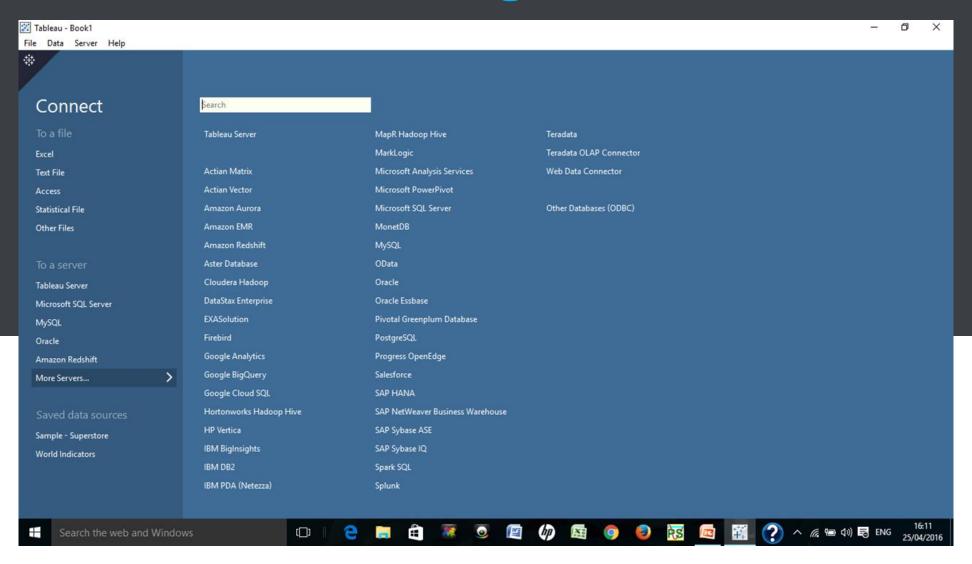
### **Connecting to Data**





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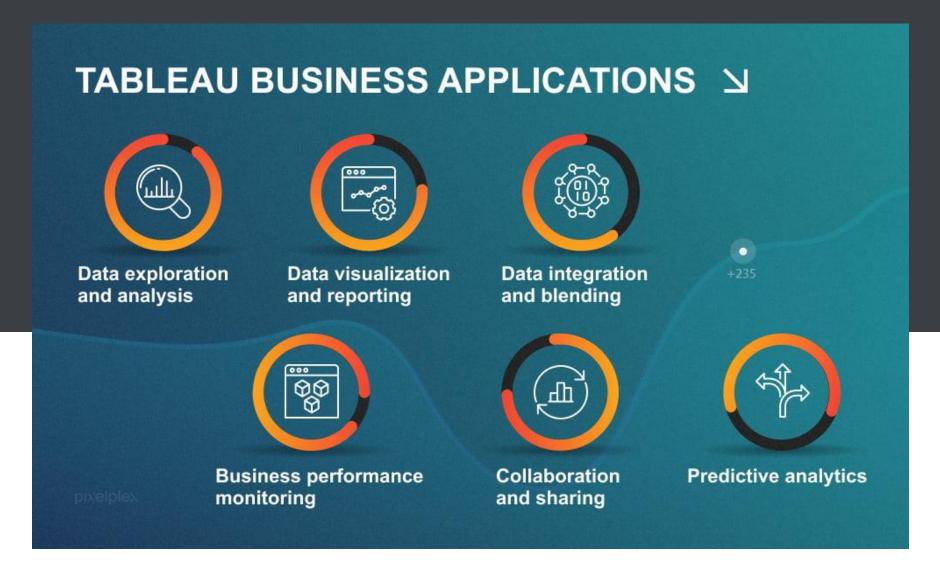
# **Connecting to Data**





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# Data Analytics in Tableau





# Activity: Hands-On Data Analytics Tableau LAB

- Sign up for tableau Cloud: <a href="https://www.tableau.com/trial/tableau-software?openExternal=true">https://www.tableau.com/trial/tableau-software?openExternal=true</a>
- Users will get 14 days free trial.
- After that Login to the Tableau Cloud https://sso.online.tableau.com/









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# Feedback Link and QR

Feedback Link: https://survey.zohopublic.in/zs/k0WU7Y







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