Introduction to Tableau Public

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Objectives

• Understand some key terms such as Business Intelligence (BI) and BI structure.
• Know what Tableau Public is and its limitations.
• Learn how Tableau Public works and its basic workflow.
What is Tableau?

• Tableau is business intelligence software that helps people see and understand their data.

What is Business Intelligence (BI)?

- The Business Intelligence (BI) refers to technologies, applications and practices for the collection, integration, analysis, and presentation of business information to support better business decision making.

What is Business Intelligence (BI)? from OLAP.com [http://olap.com/learn-bi-olap/olap-bi-definitions/business-intelligence/]
BI System can have five layers.

- Presentation Layer (e.g. data visualization tools such as Tableau)
- Analytical Layer
- Data Storage
- Transform Data
- Data source layer

Microsoft Business Intelligence - Tutorial for Beginners: https://www.slideshare.net/kerneltraining/msbi-ppts-1
Raw Data: DMC Equipment Circulation from System Log Text Files.
### DMC charges recorded in 2014 and 2016

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Another Model of BI
Five Layers

A Five-Layered Business Intelligence Architecture, In Lih Ong1, Pei Hwa Siew1 and Siew Fan Wong2, Communications of the IBIMA, 2011
http://www.ibimapublishing.com/journals/CIBIMA/cibima.html
Why Tableau?

Gartner’s 2018 Magic Quadrant for Analytics and Business Intelligence Platforms
Why Tableau?

• **Self Service BI**
  *Users can create their own reports and dashboards without putting additional strain on the BI development team.*

• **Quick Development**
  *Tableau’s drag/drop features allow non-technical users to quickly build effective dashboards.*

• **Data Visualization**
  *Tableau allows for a highly interactive and effective analytical experience for users and provides professional layout templates and features for meaningful reporting and dashboarding.*

*Tableau Dashboards Sourced from OLAP vs. RDB: An Analysis*
*http://www.statslice.com/wp-content/uploads/2013/01/Tableau-Comparison-FINAL.pdf*
Tableau Products

• Tableau Desktop, Tableau Prep (released in April 2018)
• Tableau Server
• Tableau Online
• **Tableau Public** – a free service/solution from Tableau company. To use Tableau Public,
  • Download Tableau Public (Desktop) at [https://public.tableau.com/s/download](https://public.tableau.com/s/download)
  • Create an account on Tableau Public at [https://public.tableau.com/s/](https://public.tableau.com/s/)
Tableau Public limitations

Tableau desktop public edition
- Limited live data connection and limited data sources
- Can’t save work locally, which poses a data privacy issue.
- Up to 15,000,000 rows per workbook

Tableau public server
- Up to 10GB online storage per free Tableau Public account
Tableau Academic Programs

• Tableau Desktop and Tableau Prep is free for students and instructors around the world. Read more at https://www.tableau.com/academic#8PcZYr0tkUl2ZvFG.99

• Tableau for Students
  Students (K12 and postsecondary) at accredited academic institutions worldwide are eligible for a free one-year license to activate Tableau Desktop and Tableau Prep. https://www.tableau.com/academic/students#form
Data Visualization Workflow with Tableau

• Connect to your data
• Create a basic view with worksheet
  – Drill into the data
  – Increase the level of detail with small multiples
  – Filter the view to focus your exploration
  – Use the Marks card to add depth to your analysis
• Build an interactive dashboard
• Present your analysis with story
• Save/share your work
Several key terms used in BI

• **Dimension**

  Represents descriptive categories of data such as item type, user profile, and etc.

• **Measures**

  Represents some numbers – number of checkouts, order amount and etc.

• **Cube**

  Equivalent to tables in R-database, is a structure enabling the multidimensional functionality, used to represent data along some measure of interest (i.e., checkouts), can be 2-D, 3-D, N-D.

• **Fact table**