Dashboard Creation

Estimated time needed: **30** minutes.

Scenario

You are a data engineer at an e-commerce company. Your company has finished setting up a data warehouse. Now you are assigned the responsibility to design a reporting dashboard that reflects the key metrics of the business.

Objectives

In this assignment you will:

- Create a dashboard using Cognos Analytics

Software Required

- IBM Cognos Analytics or Cognos Dashboard Embedded and Watson Studio
- (Optional) Cloud instance of IBM DB2 database

  Note: In case you did not create an IBM Cloud account or a DB2 instance in the previous module, you can simply upload the CSV file instead into IBM Cognos Analytics.

Note - Screenshots

Throughout this lab you will be prompted to take screenshots and save them on your own device. You will need these screenshots to either answer graded quiz questions or to upload as your submission for peer review at the end of this course. You can use various free screengrabbing tools to do this or use your operating system's shortcut keys to do this (for example Alt+PrintScreen in Windows).

Pre-requisites

- If you plan to use the IBM Cognos Analytics Trial version to do this lab, it is presumed that you have worked on it already. If you want to brush up on the basics of using Cognos Analytics, it is recommeneded that you complete the following labs:

  Getting Started with Cognos Analytics

Different Methods for Creating Dashboard Visualizations with Cognos Analytics .

- If your Cognos Analytics trial has expired, it is highly recommended that you finish the Setup and Practice Assignment before you proceed with this assignment using Cognos Dashboard Embedded and Watson Studio.

Environment Setup

Before you proceed with the assignment :

- Download the data from this link

Exercise 1 - Load data into the data warehouse

In order to complete Tasks 1-3 below, you have an option to first load the data into a DB2 database (Option A), or load the CSV file directly into Cognos (Option B).

Task 1 - Import data

Option A: If you choose DB2 to complete the task:

Import data in the downloaded file `ecommerce.csv` into a table named `sales_history`
Take a screenshot of the command you used to load the data into the data warehouse (DB2) and its output.

Option B: If you choose to load the data directly into Cognos:

Upload the downloaded csv file `ecommerce.csv` into Cognos Analytics and take a screenshot of successful loading of the CSV file into Cognos.

Name the screenshot as `dataimport.jpg`. (images can be saved with either .jpg or .png extension)

Task 2 - List top 10 rows

Option A: If you choose DB2 to complete the task:

List the first 10 rows in the table `sales_history`.

Take a screenshot of the first 10 rows of the table.

Option B: If you choose Cognos Analytics to complete the task:

Convert the uploaded dataset `ecommerce.csv` into a `Data module` and take a screenshot of the first 10 rows of the table.

Name the screenshot as `top10rows.jpg`. (images can be saved with either .jpg or .png extension)

Exercise 2 - Accessing the DataSource in Cognos

Task 3 - Create a data source in Cognos

Option A: If you choose DB2 to complete the task:

Create a data source in Cognos that points to the table `sales_history` in your IBM DB2 database.

Take a screenshot of the command you used and the output.

Option B: If you choose Cognos Analytics to complete the task:

Take a screenshot of the `datasource` in the Cognos Analytics workspace.

Name the screenshot as `datasource.jpg`. (images can be saved with either .jpg or .png extension)

Exercise 3 - Create a dashboard

Task 4 - Create a line chart

Create a line chart of month wise total sales for the year 2020.

Take a screenshot of the line chart you created.

Name the screenshot as `linechart.jpg`. (images can be saved with either .jpg or .png extension)

Task 5 - Create a pie chart

Create a pie chart of category wise total sales.

Take a screenshot of the pie chart you created.

Name the screenshot as `piechart.jpg`. (images can be saved with either .jpg or .png extension)

Task 6 - Create a bar chart

Create a bar chart of Quarterly sales of mobile phones

Take a screenshot of the bar chart you created.

Name the screenshot as `barchart.jpg`. (images can be saved with either .jpg or .png extension)

End of assignment

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Change Log

Date (YYYY-MM-DD)	Version	Changed By	Change Description
2021-11-23	0.1	Ramesh Sannareddy	Created initial version
2022-02-02	0.2	Ramesh Sannareddy	Updated version
2023-04-28	0.3	Steve Ryan	Edits from Item Level Feedback
2023-06-24	0.4	Lakshmi Holla	Updated version