**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](https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBMDeveloperSkillsNetwork-DV0130EN-SkillsNetwork/Hands-on%20Labs/Lab%204%20-%20Getting%20Started%20with%20Cognos%20Analytics/instructions.md.html?origin=www.coursera.org)

[Different Methods for Creating Dashboard Visualizations with Cognos Analytics](https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBMDeveloperSkillsNetwork-DV0130EN-SkillsNetwork/Hands-on%20Labs/Lab%205%20-%20Different%20Methods%20for%20Creating%20Dashboard%20Visualizations%20with%20Cognos%20Analytics/instructions.md.html).

* If your Cognos Analytics trial has expired, it is highly recommended that you finish the [Setup and Practice Assignment](https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBM-DB0321EN-SkillsNetwork/labs/WatsonCDE/HandsOn_WatsonStudioCDE.md.html)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](https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBM-DB0321EN-SkillsNetwork/analytics/ecommerce.csv)

**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**