Ministry of Education
Imam Abdulrahman Bin Faisal University
Collage of Science and Humanities
Department of Computer Sciences

وزارة التعليم
جامعة الإمام عبد الرحمن بن فيصل
كلية العلوم والدراسات الإنسانيه بالجبيل
قسم علوم الحاسب

جامعة الإمام عبدالرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

Assignment 3

ARTI 308: Machine Learning

Team Members		
No.	**Name**	**ID**
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Analyze a real retail dataset using Pandas, Seaborn, Exploratory Data Analysis (EDA) as discussed in our lab. Answer the following questions after uploading the dataset from blackboard titled (Superstore.csv):

1- Using Pandas, load the dataset and display the first five rows. (0.5 point)
2- Using Pandas, calculate the total sales per region and sort the results from highest to lowest. (0.5 point)
3- Using Seaborn, create a countplot that shows the distribution of orders across different product categories. Set the figure size to (6,4), use `Category` as the x-axis and add an appropriate title. (0.5 point)
4- Using Seaborn, create a boxplot to analyze how profit varies across different regions. Set the figure size to (6,4), use `Region` on the x-axis and `Profit` on the y-axis, and add an appropriate title. (0.5 point)
5- Using Pandas, group the data by `Category` and calculate the total profit per category. Then sort the results in descending order. (0.5 point)
6- Create a scatterplot to analyze the relationship between `Discount` and `Profit`. Use `Discount` on the x-axis and `Profit` on the y-axis. And determine how the discount effect the profit from the plot. (0.5 points)

Prepared by : Dr.Maryam Albuainin and Dr.Norah Alnaim