BFCAI Summer Training – Machine Learning

Final Project Description

Group 4

You are required to implement your own final project as *individual*, you have some requirements to do in criteria of ***100 points*****:**

- **Implementation –** ***(50 Points)***
  - Perform Exploratory Data Analysis with Visualization **(10 points)**
  - Clean your data as much as possible including removing outliers if exist **(5 points)**
  - Encode any categorical attribute in your dataset if exist **(5 points)**
  - Standardize your attributes if possible **(10 points)**
  - Use ***Logistic Regression with OvR Technique*** to classify your records **(10 points)**
  - Tune your hyperparameters using ***GridSearchCV*** to give better performance **(5 points)**
  - Visualize your model performance (train against validation) including ROC-AUC curve and training performance **(5 points)**
- **Evaluation –** ***(10 Points)***
  - Your model Performance will be evaluated using ***F1-Score*** metric **against hidden test set.**
  - You should achieve at least **85%** of the specified metric.
- **Presentation –** ***(20 Points)***
  - Submit your notebook as part of the presentation **(5 points)**
  - Create your own PowerPoint presentation at maximum *10 Slides* showing your proposed work **(5 points)**
  - Discuss your project in maximum of *5 Minutes* in front of your mates **(10 points)**
- **Communication –** ***(20 Points)***
  - Record a video about 2 minutes showing your notebook and the proposed work **(5 points)**
  - Post your video with description on your ***LINKED IN*** profile and add a mention to the trainer **@Yousef Elbaroudy** and add hashtag of **#BFCAI** and **#MachineLearning (5 points)**
  - Upload your notebook on your Kaggle account and make it public **(5 points)**
  - Upload your proposed work on your account through Github platform **(5 points)**

Trainer: Yousef Elbaroudy