

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 **Support-Vector Machine with RBF Kernel** 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 **AUC** metric **against hidden test set**.
 - You should achieve at least **0.89** 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