**Project**

**C3151-Artificial Intelligence-V1**



**School of Systems and Technology**

**UMT, Lahore**

Complete the task in a group of 3 to 5

Choose only one Algorithm and use GridSearchCV to exhaust all hyperparameters in large range of values.

Use "bodyperformance" Dataset to perform

1. Complete EDA.
2. Data preprocessing.
3. Classification using.
4. Logistic Regression, Decision Tree, Random Forest ,SVM,KNN with default parameters.
5. Use GridSearch CV for hyperparameter optimization with 5 Fold Cross Validation for each classifier to find out best classifier.
6. Evaluate Each Classifier with default and optimized parameters.
7. Compare each Classifier and display results in the form of Dataframe.

**GUIDELINES:**

* **The submission deadline for this assignment is February 07, 2022 (Monday).**
* **Assignment should be .ipynb file and pdf format.**
* **Filename should be *YourName\_StudentID.ipynb or .pdf*. Otherwise assignment would not be marked.**
* **Assignment should be submitted on the LMS.**
* **The viva can be conducted, however, do this assignment yourself.**
* **Assignment submitted after due date will not be accepted.**