RIPHAH INTERNATIONAL UNIVERSITY

Faculty of Computing

CS3833 – Machine Learning

Semester: Fall 2024	**Semester Project**
Due Date: Dec 07, 2024	**Submission Time:** 11:59 PM
Instructor: Mr. Uzair Rasheed	**Max Marks:** 10

Supervised Learning

Training with multiple classifiers:

1. Naïve Bayes
2. K-NN
3. Decision Trees
4. ANN

Students are now well aware of datasets**,** that is why understanding the dataset is part of the project.

Steps of Implementation:

1. Load the dataset.
2. Create a dataframe.
3. Explore and visualise the data and explain it via different charts/graphs.
4. In your report, explain the data and provide a perspective (what you can find with the help of this dataset).
5. Create classification model using the required 4 classifiers.
6. Perform 10-folds cross validation.
7. Create a confusion matrix.
8. Calculate Accuracy, Precision, Recall and F1-score.
9. Compare the performance of all 4 algorithms in a table.
10. Explain your work, explanation for performance of each classifiers is required.

Submission Guidelines:

- Submit the ipynb file.
- Create a pdf file report where you will explain all the steps of implementation and output with the help of screenshots.
- Similar attempts will be marked Zero.
- Late submissions not acceptable.