

**Artificial Intelligence Laboratory (CSE - 3812)**

**Offline - 03**

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**KNN Classification for Credit Card Dataset**

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| --- | --- |
| **K Value** | **Accuracy** |
| 1 | 0.9966 |
| 3 | 0.9967 |
| 5 | 1.0 |
| 10 | 1.0 |
| 15 | 0.9968 |

Based on the above accuracy values for different K values in K-Nearest Neighbors (KNN) classification for the Credit Card Dataset, the K value that results in the maximum accuracy during testing is 5 and 10, with the accuracy of 1.0 (100%).

**KNN Regression for Paris Housing Dataset**

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| --- | --- |
| **K Value** | **Error (Mean Absolute Error)** |
| 1 | 31747942873111.12 |
| 3 | 35237571867187.37 |
| 5 | 33120668277128.465 |
| 10 | 34339221857141.742 |
| 15 | 33468993258920.117 |

Based on the above Mean Absolute Error (MAE) values for different K values in K-Nearest Neighbors (KNN) regression for the Paris Housing Dataset, the K value that results in the minimal error during testing is 1, with an error of 31,747,942,873,111.12.