**Capstone Project Submission**

**Instructions:**

i) Please fill in all the required information.

ii) Avoid grammatical errors.

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| **Team Member’s Name, Email and Contribution:** |
| **TEAM MEMBERS -**   1. IQBAL BABWANE 2. SAMEER ANSARI 3. LUKMAN HAIDER   **NAME- LUKMAN HAIDER**  **EMAIL – lukmanhaiderkhan@gmail.com**  **CONTRIBUTION -**  Data Cleaning, Data Analysis, Data Visualization, Feature Engineering, Fitting Models, Model Explainability and Report Writing. |
| **Please paste the GitHub Repo link.** |
| https://github.com/Lukman5223/Credit-Card-Prediction-ML |
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| ● Exploratory Data Analysis (EDA): In this part we have done some EDA on the features to see the trend.  ● Data Processing: In this part we went through each attribute and encoded the categorical features.  ● Model Creation: Finally in this part we created the various models. These various models are being analysed and we tried to study various models so as to get the best performing model for our project.   1. Logistic Regression 2. Decision trees 3. KNN - K-Nearest Neighbor 4. Random Forest 5. SVC – Support Vector Classification 6. Gradient Boosting   This study focused on predicting Credit Card Default Prediction using given dataset. Logistic Regression, Decision Tree, Random Forest, Gradient Boosting Regressor, KNN and SVC are used to predict. This statistical data analysis shows interesting outcomes in prediction method and also in an exploratory analysis.  hence the prediction from the logistic model was very low. Best predictions are obtained with an **SVC** model with a **Recall** score for train is **82%** and test score is **80%.**  After performing variable importance analysis to find the most significant variables for all the models developed with the given data sets. We are getting the best results from SVC. |