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| Credit Card Default Prediction |
| Project Architecture |

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**Architecture :**

Outlier Treatment

EDA

Data Cleaning

Model Deployment on Heroku

Robust Model Testing

Designing user interface on Anvil

Hyper Parameter Tuning

Modal Delopment

Feature Engineering

**Deployment Process :**

**Architecture Description :**

Setting a cron job on Heroku app URL to keep the server running

Deploying the code on Heroku

Designing a server in Flask Which runs Anvil uplink simultaneously using asynchronous execution

Connecting Anvil uplink with the code containing pipeline from Github

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Designing the UI with Anvil

Loading the pipeline on Github

**Data Description :**

The dataset named Credit Card Default Prediction is available in kaggle and UCI repository. This data contains information default prediction, demographic factors, credit data, history of payment, and bill statements of credit card clients in Taiwan from April 2005 to September 2005. The prediction task is to determine whether a person can be defaulter for next month or not.

**Data Preparation :**

This step includes all the necessary steps that take place in the life cycle of a data science project namely, Data cleaning, Exploratory Data Analysis (EDA), and outlier treatment. In this step, our data gets prepared to be feeded to our ML model.

**Model Development :**

This step contains all other necessary steps such as Feature Engineering, Feature Selection, Model Selection and Hyperparameter tuning to make the best possible model that can be made for accurate and correct prediction

**Deployment Process :**

In this step, we first develop the UI using Anvil and connect with our code in which our model is running with the help of an uplink and create a server using Flask which runs the uplink code (server code) using parallel excecution or asynchronous execution and we will then upload the hole code in Heroku cloud using git and github. We will then set a cron job on that server to keep the server and server code running forever