**Readme documentation on Smart premium predictor ML Model & Streamlit front end interface**

**Following software’s are required as a prerequisite:**

* Python (3.12.1, latest version)
* Visual studio code

**Steps to create a model:**

Install necessary python packages in the working directory (virtual environment)

* Download **SmartPremiumML.ipynb** file to your local which is the model file.
* Download **train.csv** to your local which is the training data source
* Navigate to **SmartPremiumML.ipynb** and update the path of **train.csv** file accordingly.
* Run the cells till best model is identified
* Ensure that the best model is saved as a pickle file
* Launch command prompt
* Execute the command **mlflow ui** (prerequisite: **pip install mlflow**)
* Launch mlflow in the browser
* Run the other cells
* Explore the logged models in Ml flow UI

**Steps to launch the Streamlit UI:**

* Download **smartpremiumui** folder
* Launch visual studio and point the folder as a project
* From visual studio, navigate to **main.py**
* Update **pickleFilePath** variable to the local pickle file
* From visual studio terminal, navigate to **main.py**
* Execute, **streamlit run main.py**
* From the streamlit ui, click, **SmarPremiumCalculator** tab at the left panel
* Fill in the necessary details
* Click **Predict** button