

■ Car Price Prediction App – Step-by-Step Guide (Using Visual Studio Code)

This guide will help you create a complete Car Price Prediction app using Python, Streamlit, and Visual Studio Code. Follow each step carefully to ensure smooth setup and execution.

1 Step 1: Create Project Folder

Create a new folder inside your main **StreamLib** directory and name it **CarPricePrediction**. This folder will contain all your project files.

2 Step 2: Upload Dataset

Place the provided car dataset (CSV file) inside the newly created **CarPricePrediction** folder.

3 Step 3: Create EDA File

Open Visual Studio Code → Click on **File > Open Folder** and select the **CarPricePrediction** folder. Then create a new Python file named **EDA.py**. Perform data exploration and cleaning here (e.g., removing duplicates, handling nulls, encoding categories). Run this file to generate a cleaned dataset.

4 Step 4: Train Model

Using the cleaned dataset, create another Python file named **model_train.py**. In this file, build and train a **Linear Regression** model to predict car prices. Once trained, save the model using **pickle** (e.g., `pickle.dump(model, open('model.pkl', 'wb'))`). This creates a **model.pkl** file containing your trained model.

5 Step 5: Create Streamlit App

Now create an **app.py** file. This will be your Streamlit web app to predict car prices. Load your saved model (`model.pkl`) and build an interface to take user inputs such as Year, Present_Price, Kms_Driven, etc. Then display the predicted car price on the screen.

6 Step 6: Create requirements.txt

Create a file named **requirements.txt** and include all dependencies such as pandas, numpy, scikit-learn, streamlit, and pickle (optional since built-in).

7 Step 7: Save and Run

Save all your files before closing Visual Studio Code. Then open the terminal and run the following command to launch your app:
`streamlit run app.py`

8 Step 8: Optional - Deploy

Once everything is working locally, you can deploy your app on Streamlit Cloud or other platforms using your GitHub repository.