

<b>Objectives :</b>	As Cambodia is a developing country. Because of increasing of populations, there are need lots of vehicles in country especially motorcycle ,for to travel to work or study. So, there are many increasments of buying or selling. That is a reasen that we decided to choose this project. We are looking for the future of selling price and features which related in selling. We want to know deeply of selling price both new and reused of moto and prediecte it in the future
<b>Data Collection :</b>	We do a web_scraping from Khmer24.com to get the data set (38751 ).
<b>Data Cleaning and Preparation :</b>	<ul style="list-style-type: none"> <li>-We remove of duplicates data</li> <li>-We check Missing value and outliers in our dataset.</li> <li>- We ploted (in streamlit) of histogram and linePlot of price ,location, Condition,Model .</li> <li>-We use found describe statistics</li> </ul>
<b>Feature Engineering :</b>	<ul style="list-style-type: none"> <li>-We find the important feature in our dataset by plotting hitmap to the correlation of each features.</li> <li>-Identify additional Features thay may influence Motorcycle Price ,Such as Model ,condition ,year or georaphical location of selling.</li> <li>-Extract and create relevant features from the available data, ensuring they are in a suitable format for analysis</li> </ul>
<b>Model test :</b>	<ul style="list-style-type: none"> <li>-Utilize appropriate statistical and machine learning techniques to analyze the data.</li> <li>-Conduct descriptive analysis to understand the distribution of prices ,year, model .</li> <li>- Hyperparameter Tuning (if necessary)</li> </ul> <pre>param_grid = {     'C': [0.1, 1.0, 10.0],     'kernel': ['linear', 'poly', 'rbf'],     'degree': [2]     'metric' = 'minkowski' }</pre> <ul style="list-style-type: none"> <li>-We use 2 types of model. One is regression including Logistic Regression, Random forest Regression, Naive Byes Regrssion , K-Nearest Neighbours Regression, Polynomail Regression . And the other one is classification such as Support vector machine , Decision Tree.</li> </ul>
<b>Model Selection :</b>	We test model by find the Accuracy, Precision , Pecall, F1 Score and F2 Score for model that support with Accuracy. And for other model we find Mean Squares Error and R-Square
<b>Model Evaluation :</b>	Based on accuracy, we decided to choose Random Forest model. And by looking for R-Square Random Forest Regressor and Polynomial Regression had the best

	performance on the test set, with very low MAE, MSE, and RMSE values, as well as high R-Square values.
Conclusion :	In conclusion, the analysis of motorcycle prices in Cambodia revealed several key findings. By analyzing a representative dataset, we were able to gain insights into the trends and factors influencing motorcycle prices in the country.