Project Summary

* This project is based on the concepts of Linear regression on a set of data frame related to bike sharing demand prediction along with the exploratory data analysis (EDA) concepts.
* Linear regression analysis and EDA was performed on Bike sharing demand prediction data provided ,it contains several information like number of rented bike counts,temperature,rainfall,humidity etc. The main objective of this project was to study the factors that affect the number of rented bike counts as this was our target variable.
* This project was carried out using the concepts of Pandas, NumPy, Matplotlib, regression analysis, model creation. Different types of regression models were implemented and various coefficients were calculated.EDA was also done to study the pattern between our target variable and other variables present in the data set.
* The outcome we got was in the form of scatter plots,heatmap distribution plots .
* The challenges faced during this project was the model creation part. Implementation of only one model was not sufficient to study the pattern ,so in this project four different regression models were implemented namely Lasso regression, Ridge regression,Elasticne and Decision tree.The second challenge was the correct and proper usage of EDA and linear regression concepts.