

All Levels

**Ola Bike Ride Request Demand Forecast**

It is challenging to service ride requests because of their unpredictability and spontaneity. For this very reason, it is vital to have a prediction algorithm that can forecast the approximate number of rides in the near future. This project aims to predict the ride-request demands for a particular area for a given time. Latitude, longitude ...

Worked on this project

Duration : 8 Hours

All Levels

4 Steps

**Project Objective**

This project aims to build a machine-learning model to forecast Ola bike ride demand. Ola will use this model to optimize their fleet management and ensure enough bikes are available to meet demand.

**Inspiring Project Examples**

https://www.projectpro.io/project-use-case/ola-bike-rides-request-demand-forecast

**Step By Step**

On this project, you will pass by these steps. All steps must be done to successfully complete this project.

**Data Cleaning, Analysis and Visualization**

This Phase Involves Cleaning And Preparing The Dataset For Analysis. It Also Includes Exploratory Data Analysis To Gain Insights And Detect Patterns In The Data. Additionally, Visualization Techniques Will Be Used To Present The Insights More Quickly.

**Data Clustering and Model Building**

This Phase Involves Clustering The Data Into Groups Based On Similar Characteristics Using The K-Means Algorithm. The Clustered Data Will Then Be Used To Build A Machine-Learning Model To Predict The Number Of Ride Requests For A Given Area And Time Duration.

**Evaluating Various Model Approaches**

This Phase Involves Evaluating The Performance Of Different Machine Learning Models In Predicting Ride-Request Demands And Selecting The Best-Performing Model.

**Presentation**

Explain The Importance Of Demand Forecasting For Bike Ride-Sharing Companies.

**Instructor Guideline**

The project will be divided into the following steps: Collect and preprocess the data. The data will include historical ride request data, weather data, and event data. The data will be preprocessed to remove noise and outliers. Select features. The features that will be used to train the model will be selected based on their predictive power. Train the model. The model will be trained using a machine learning algorithm, such as a linear regression model, a random forest model, or an XGBoost model. Evaluate the model. The model will be evaluated using a holdout set of data. The evaluation metrics will include the root mean squared error (RMSE) and the mean absolute error (MAE).

**Guidelines Ressources**

https://www.geeksforgeeks.org/ola-bike-ride-request-forecast-using-ml/