Capstone Project 1 – Bike sharing system

Bike sharing systems are a means of renting bicycles where the process of obtaining membership, rental and bike return is automated via a network of kiosk locations throughout the city. With this setup people can rent a bike from one place and return it in a different location based on the need. The data is analyzed for Capital Bikeshare in Washington DC.

The idea is to analyze the current bike sharing demand and to study historical usage patterns with weather data to forecast the demand for bike sharing and predict the usage to improve on the kiosk locations.

The data used is hosted by UCI Machine Learning repository.

Using the data the trends of bike sharing demand can be analyzed using factors like peak times, weather, routes, traffic, weekday/weekend. These trends can be reported in a graph to estimate the demand.