# Database Access via Python

The database is accessed using Python and visualization of analyzed data is shown below. The connection of MySQL to Python is done using mysql.connector, followed by cursor.excecute to run and fetchall from query, followed by converting the list into a dataframe using pandas library and using matplotlib to plot the graphs for the analytics.
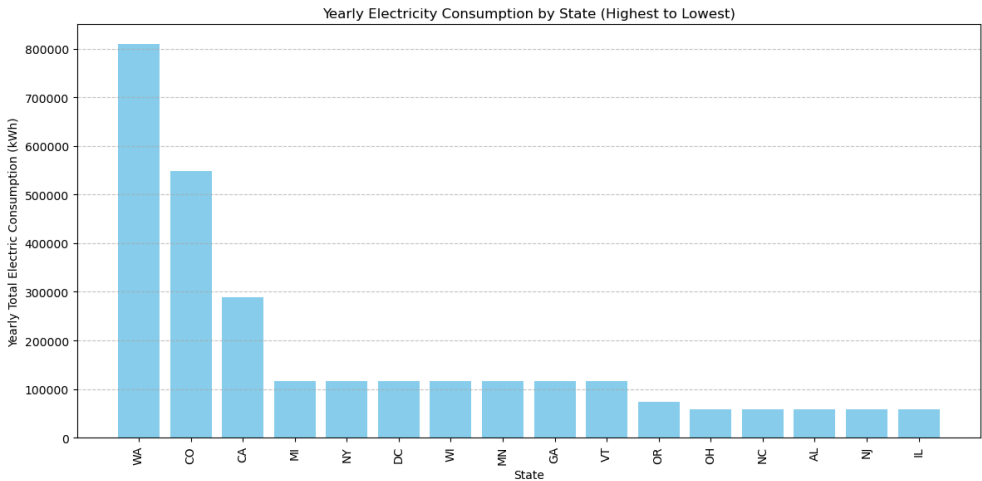
Graph 1: This graph displays states ranked from highest to lowest based on their yearly electricity consumption, with the top 5 states being Washington, California, Colorado, New York, Oregon, and Wisconsin. This graph aids in **targeting expansion**, **providing market insights**, **strategic planning**, and **identifying potential government support and incentives** for EV station businesses in high electricity consumption states.
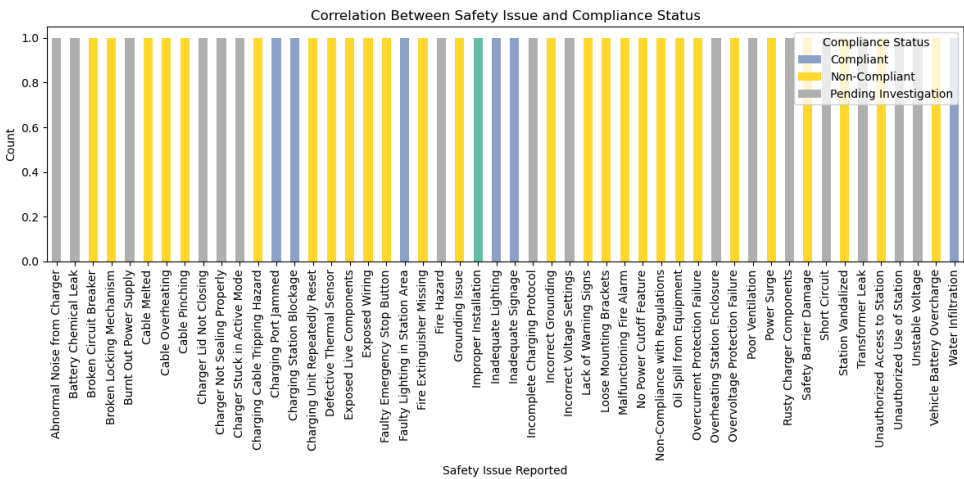
Graph 2: The chart highlights a significant problem with compliance for reported safety issues. Most of the issues are either non-compliant or pending investigation, **signaling that improvements are needed in safety standards or enforcement.**
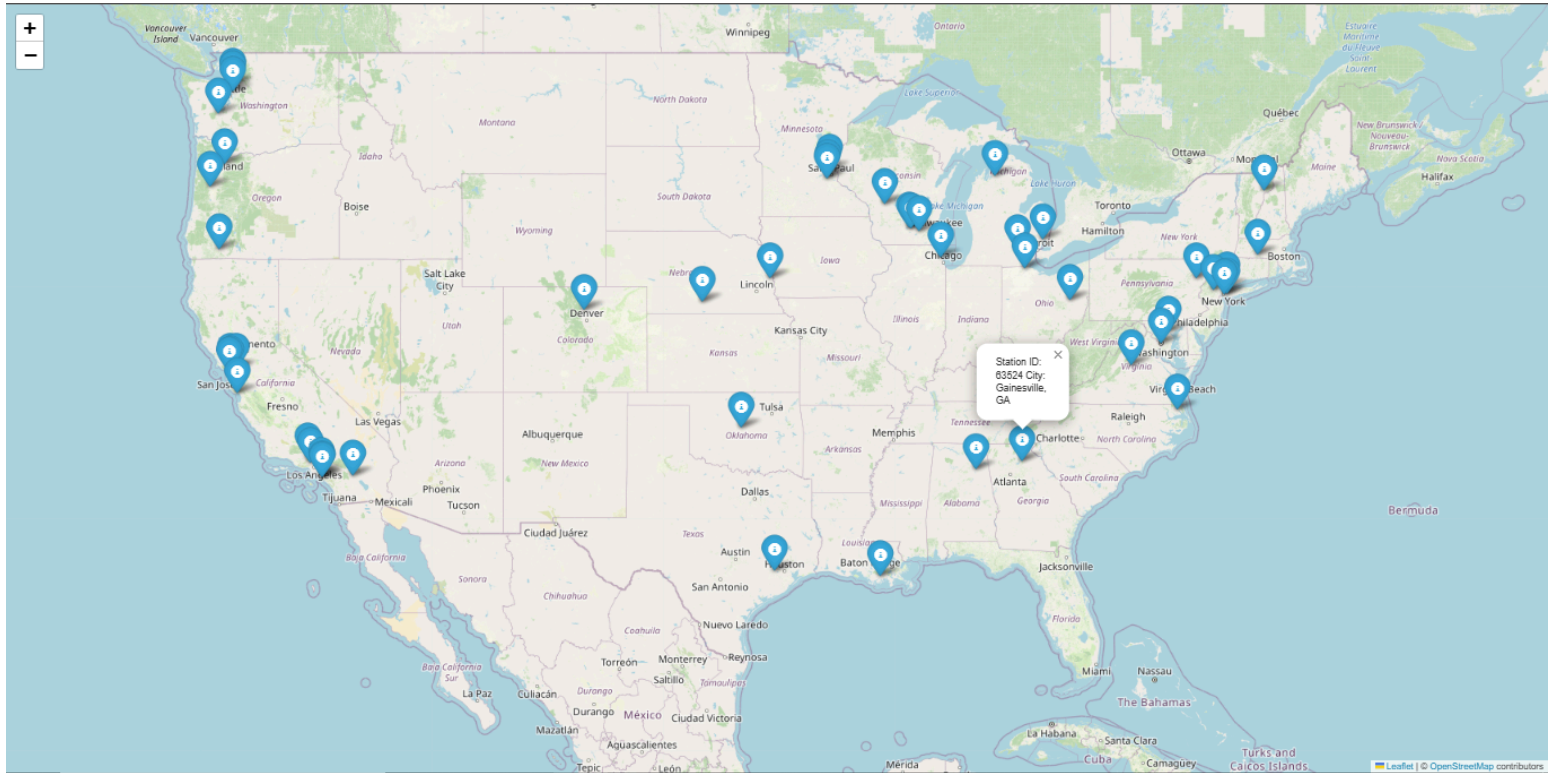
Graph 3: Using Python libraries like Folium and GeoPandas, along with the MySQL database schema for EV stations, we have created a map displaying **station_id, city, and state across the USA**, covering a total of 50 EV stations. If trained properly, this model can help in optimizing the placement of future EV stations, improving accessibility, and identifying underserved regions for better expansion planning.