# Web Devlopment Report:

**Project Overview:** "SuperAdmin" is prebuilt Django application which facilitates clients to have visual and tabular analysis of their customer data. As it had various things to be updated and added with time to better client experience. It is combination of frontend, python-based backend and database to display graphs and tables providing various filters to dynamically view the data analysis and perform other operations

**Tech Stack involved**: Django, MySQL, HTML, CSS, Bootstrap, JavaScript

**Contributions:**

- Adding new web pages – Worldswipe, Campaign Usage
- Optimizing existing pages - Use of HTML, CSS, and Bootstrap for frontend design
- Backend Development - Working with Django framework - SQL query optimization - Creating and modifying database relations
- Data Visualization - Deploying graphs (used chart.js), tables
  - Line chart, Bar graph, Pie chart
- Data Management:  Understanding existing data relations, Creating new relations from existing data, Fetching and displaying data on web pages


**Challenges Faced and Solutions Implemented:**

- Did not have access to user data due to privacy restrictions, hence created sample data based on table schema available to add queries
- Finding about and learning the charting library like chart.js and Google charts
- Portal already hosted on AWS, therefore had to clone the project to the local host and set up the database accordingly and make the changes considering its suitability on the server.


**Suggestions:**

The portal is slow in loading the new webpage each time as it involves fetching the data from the database on the server.

- Therefore, the queries written can be optimized by making classes and increasing code reusability and decrease repeated database connection.
- The portal can be optimized by using ReactJS to make it a single Page loading application to fasten the process.