**Group Work Report**

**Introduction:**

This report summarizes the work distribution and evaluation of a collaborative project involving two team members: Sameer Khan and Ajay. The project involved the development of eight distinct programs to visualize data related to cars and the creation of a menu to navigate between these programs.

**Work Distribution:**

The project was divided into eight distinct programs, each designed to visualize different aspects of the car dataset. The work was distributed as follows:

**Programs by Sameer Khan:**

1. **Program 1 (Line Chart):**
   * **Objective:** Developed a line chart to visualize the average MPG for cars from 1970 to 1982.
   * **Implementation:** Extracted data, processed it, and created the visualization.
2. **Program 3 (Bar Chart):**
   * **Objective:** Developed a bar chart to display the number of cars for each model year.
   * **Implementation:** Extracted data, processed it, and created the visualization.
3. **Program 4 (Pie Chart):**
   * **Objective:** Created a pie chart showing the distribution of cars based on their origin.
   * **Implementation:** Extracted data, processed it, and created the visualization.
4. **Program 5 (Scatter Plot):**
   * **Objective:** Developed a scatter plot to visualize the relationship between MPG and horsepower.
   * **Implementation:** Extracted data, filtered it, and created the visualization.

**Programs by Ajay:**

1. **Program 2 (Histogram):**
   * **Objective:** Developed a histogram representing the distribution of cars based on the number of cylinders.
   * **Implementation:** Extracted data, processed it, and created the visualization.
2. **Program 6 (Scatter Plot 2):**
   * **Objective:** Developed a scatter plot showing the relationship between horsepower and acceleration.
   * **Implementation:** Extracted data, filtered it, and created the visualization.
3. **Program 7 (Heat Map):**
   * **Objective:** Developed a heat map displaying correlations between different car parameters.
   * **Implementation:** Extracted data, calculated correlations, and created the visualization.
4. **Program 8 (Horizontal Bar Chart):**
   * **Objective:** Created a horizontal bar chart displaying fuel efficiency for different car models.
   * **Implementation:** Extracted data, filtered it, and created the visualization.

**Collaborative Work:**

* + The menu design, which allows users to navigate between programs, was a collaborative effort. We both worked together to create the menu.
  + Merging the different programs into a single codebase was also a collaborative task. We both contributed to integrating the individual programs into a cohesive application.

The workload for the project was evenly distributed and sharing the responsibilities equally, demonstrating a 50-50 distribution of responsibilities. The division of work and collaborative efforts were well-balanced, resulting in the successful completion of the eight programs and the integrated menu system.

**Submitted By: Sameer Khan**