Project overview:

The objective of this project is to analyze driving behaviors and identify any differences between genders. The project aims to understand how gender may influence various driving outcomes, such as accident rates, speeding violations, and adherence to traffic rules. By exploring these patterns, we can gain insights into potential gender-based disparities in driving behaviors.

Importing Libraries

```
In [95]: import pandas as pd
   import numpy as np
   import matplotlib.pyplot as plt
   import seaborn as sns
   from scipy.stats import ttest_ind, chi2_contingency
   from sklearn.preprocessing import MinMaxScaler, LabelEncoder, OneHotEncoder
   from sklearn.model_selection import train_test_split
   from sklearn.linear_model import LinearRegression
   from sklearn.metrics import mean_squared_error
   import warnings
   warnings.simplefilter("ignore")
```

Load Dataset

The dataset used for this analysis contains information on a sample of drivers, including their demographic characteristics, driving history, and recorded incidents. The dataset includes variables such as age, gender, number of accidents, speeding violations, and other relevant driving-related attributes.

```
In [2]: df = pd.read_csv(r"C:\Users\razam\Downloads\Foreign Data\Foreign_Data.csv")
```

Statistical Insights

In [3]: df.head()

Out[3]:

	Date Of Stop	Time Of Stop	Agency	SubAgency	Description	Location	Latitude	Lon	
0	09/24/2013	17:11:00	MCP	3rd district, Silver Spring	DRIVING VEHICLE ON HIGHWAY WITH SUSPENDED REGI	8804 FLOWER AVE	NaN		
1	08/29/2017	10:19:00	MCP	2nd district, Bethesda	DRIVER FAILURE TO OBEY PROPERLY PLACED TRAFFIC	WISCONSIN AVE@ ELM ST	38.981725	-77.(
2	08/29/2017	12:52:00	MCP	6th district, Gaithersburg / Montgomery Village	FAILURE STOP AND YIELD AT THRU HWY	CHRISTOPHER AVE/MONTGOMERY VILLAGE AVE	39.162888	-77.;	
3	08/29/2017	09:22:00	MCP	3rd district, Silver Spring	FAILURE YIELD RIGHT OF WAY ON U TURN	CHERRY HILL RD./CALVERTON BLVD.	39.056975	-76.9	
4	08/28/2017	23:41:00	MCP	6th district, Gaithersburg / Montgomery Village	FAILURE OF DR. TO MAKE LANE CHANGE TO AVAIL. L	355 @ SOUTH WESTLAND DRIVE	NaN		
5 r	5 rows × 37 columns								

In [4]: df.tail()

Out[4]:

	Date Of Stop	Time Of Stop	Agency	SubAgency	Description	Location	Latitude	Lo			
307687	08/31/2014	11:27:00	MCP	3rd district, Silver Spring	EXCEEDING MAXIMUM SPEED: 50 MPH IN A POSTED 30	ROUTE 198/SANTINI ROAD	39.106968	-76			
307688	08/30/2017	12:16:00	MCP	2nd district, Bethesda	UNSAFE BACKING OF MOTOR VEH.	NORTH PARK AVE@ SHOEMAKER FARM LN	38.963490	- 77			
307689	11/23/2013	16:09:00	MCP	3rd district, Silver Spring	DRIVING VEHICLE ON HIGHWAY WITH SUSPENDED REGI	PINEY BRANCH RD / ARLISS RD	38.998719	-77			
307690	01/14/2012	02:46:00	MCP	6th district, Gaithersburg / Montgomery Village	DRIVING WHILE IMPAIRED BY ALCOHOL	WOODFIELD RD. @ EMORY GROVE RD.	39.149768	-77			
307691	03/27/2012	23:07:00	MCP	4th district, Wheaton	DRIVER FAILURE TO STOP AT STOP SIGN LINE	GRANDPRE RD @ CONNECTICUT AVE	39.084780	-77			
5 rows ×	5 rows × 37 columns										
4			_								

```
In [5]: df.dtypes
Out[5]: Date Of Stop
                                       object
        Time Of Stop
                                       object
        Agency
                                       object
        SubAgency
                                       object
        Description
                                       object
        Location
                                       object
        Latitude
                                      float64
        Longitude
                                      float64
        Accident
                                       object
        Belts
                                       object
        Personal Injury
                                       object
        Property Damage
                                       object
        Fatal
                                       object
        Commercial License
                                       object
        HAZMAT
                                       object
        Commercial Vehicle
                                       object
        Alcohol
                                       object
        Work Zone
                                       object
        State
                                       object
        VehicleType
                                       object
        Year
                                      float64
        Make
                                       object
        Model
                                       object
        Color
                                       object
        Violation Type
                                       object
        Charge
                                       object
                                       object
        Article
        Contributed To Accident
                                       object
        Race
                                       object
        Gender
                                       object
        Driver City
                                       object
        Driver State
                                       object
        DL State
                                       object
        Arrest Type
                                       object
        Geolocation
                                       object
        Traffic Signal Violations
                                        int64
        Average Speed
                                        int64
        dtype: object
In [6]: | df.columns
Out[6]: Index(['Date Of Stop', 'Time Of Stop', 'Agency', 'SubAgency', 'Description',
                'Location', 'Latitude', 'Longitude', 'Accident', 'Belts',
                'Personal Injury', 'Property Damage', 'Fatal', 'Commercial License',
                'HAZMAT', 'Commercial Vehicle', 'Alcohol', 'Work Zone', 'State',
                'VehicleType', 'Year', 'Make', 'Model', 'Color', 'Violation Type',
                'Charge', 'Article', 'Contributed To Accident', 'Race', 'Gender',
                'Driver City', 'Driver State', 'DL State', 'Arrest Type', 'Geolocatio
        n',
                'Traffic Signal Violations', 'Average Speed'],
               dtype='object')
```

In [7]: | df.shape

Out[7]: (307692, 37)

In [8]: df.describe()

Out[8]:

	Latitude	Longitude	Year	Traffic Signal Violations	Average Speed
count	273504.000000	273504.000000	307384.000000	307692.000000	307692.000000
mean	39.083945	-77.111662	1999.094188	0.529530	56.311311
std	0.066438	0.094896	117.366143	0.526457	3.700800
min	38.958470	- 77.364615	0.000000	0.000000	40.000000
25%	39.030062	- 77.198204	2001.000000	0.000000	55.000000
50%	39.081476	- 77.094698	2006.000000	1.000000	55.000000
75%	39.147293	-77.039993	2010.000000	1.000000	55.000000
max	39.302135	-76.837895	3003.000000	2.000000	75.000000

Check Missing Values

<pre>In [9]: df.isnull().sum()</pre>		
[9]: Date Of Stop		0
Time Of Stop		0
Agency		0
SubAgency		0
Description		0
Location		0
Latitude	3418	-
Longitude	3418	
Accident		0
Belts		0
Personal Injury		0
Property Damage		0
Fatal		0
Commercial License		0
HAZMAT		0
Commercial Vehicle		0
Alcohol		0
Work Zone		0
State		0
VehicleType		0
Year	30	
Make		0
Model		0
Color	308	
Violation Type		0
Charge		0
Article	523	6
Contributed To Acc		0
Race		0
Gender		0
Driver City		0
Driver State		0
DL State	154	
Arrest Type		0
Geolocation	3418	
Traffic Signal Vio		0
Average Speed		0
dtype: int64		-
> F		

Handle Missing Values

Out[10]:

G€	DL State	Driver City	Article	Color	Year	Longitude	Latitude	
	MD	TAKOMA PARK	Transportation Article	BLACK	2008.0	NaN	NaN	0
(3 -77.09275)	VA	FAIRFAX STATION	Transportation Article	GREEN	2001.0	-77.092757	38.981725	1
(39.16288 -77.22908	MD	UPPER MARLBORO	Transportation Article	SILVER	2001.0	-77.229088	39.162888	2
(3 -76.95463	MD	FORT WASHINGTON	Transportation Article	WHITE	1998.0	-76.954633	39.056975	3
	MD	GAITHERSBURG	Transportation Article	WHITE	2015.0	NaN	NaN	4
(39.10696 -76.93983	MD	SILVER SPRING	Transportation Article	BLACK	1998.0	-76.939838	39.106968	307687
-77.09062:	VA	UPPERVILLE	Transportation Article	GRAY	2017.0	-77.090623	38.963490	307688
(38 -77.00150	MD	SILVER SPRING	Transportation Article	TAN	2000.0	-77.001504	38.998719	307689
(39 -77.23392	MD	GAITHERSBURG	Transportation Article	BLACK	1988.0	-77.233928	39.149768	307690
(39. -77.07810	MD	SILVER SPRING	Transportation Article	RED	2010.0	-77.078107	39.084780	307691

307692 rows × 8 columns

In [11]: # Option 1: Imputation: Replace missing values with mean of the column

df_imputed = df.fillna(df_imputed_columns.mean())

In [12]: df_imputed

Out[12]:

	Date Of Stop	Time Of Stop	Agency	SubAgency	Description	Location	Latitude
0	09/24/2013	17:11:00	MCP	3rd district, Silver Spring	DRIVING VEHICLE ON HIGHWAY WITH SUSPENDED REGI	8804 FLOWER AVE	39.083945
1	08/29/2017	10:19:00	MCP	2nd district, Bethesda	DRIVER FAILURE TO OBEY PROPERLY PLACED TRAFFIC	WISCONSIN AVE@ ELM ST	38.981725
2	08/29/2017	12:52:00	MCP	6th district, Gaithersburg / Montgomery Village	FAILURE STOP AND YIELD AT THRU HWY	CHRISTOPHER AVE/MONTGOMERY VILLAGE AVE	39.162888
3	08/29/2017	09:22:00	MCP	3rd district, Silver Spring	FAILURE YIELD RIGHT OF WAY ON U TURN	CHERRY HILL RD./CALVERTON BLVD.	39.056975
4	08/28/2017	23:41:00	MCP	6th district, Gaithersburg / Montgomery Village	FAILURE OF DR. TO MAKE LANE CHANGE TO AVAIL. L	355 @ SOUTH WESTLAND DRIVE	39.083945
307687	08/31/2014	11:27:00	МСР	3rd district, Silver Spring	EXCEEDING MAXIMUM SPEED: 50 MPH IN A POSTED 30	ROUTE 198/SANTINI ROAD	39.106968
307688	08/30/2017	12:16:00	MCP	2nd district, Bethesda	UNSAFE BACKING OF MOTOR VEH.	NORTH PARK AVE@ SHOEMAKER FARM LN	38.963490
307689	11/23/2013	16:09:00	MCP	3rd district, Silver Spring	DRIVING VEHICLE ON HIGHWAY WITH SUSPENDED REGI	PINEY BRANCH RD / ARLISS RD	38.998719
307690	01/14/2012	02:46:00	MCP	6th district, Gaithersburg / Montgomery Village	DRIVING WHILE IMPAIRED BY ALCOHOL	WOODFIELD RD. @ EMORY GROVE RD.	39.149768
307691	03/27/2012	23:07:00	MCP	4th district, Wheaton	DRIVER FAILURE TO STOP AT STOP SIGN LINE	GRANDPRE RD @ CONNECTICUT AVE	39.084780

307692 rows × 37 columns

In [13]: # Imputed DataFrame
 df_imputed.head()

Out[13]:

	Date Of Stop	Time Of Stop	Agency	SubAgency	Description	Location	Latitude	Lon
0	09/24/2013	17:11:00	MCP	3rd district, Silver Spring	DRIVING VEHICLE ON HIGHWAY WITH SUSPENDED REGI	8804 FLOWER AVE	39.083945	-77.
1	08/29/2017	10:19:00	MCP	2nd district, Bethesda	DRIVER FAILURE TO OBEY PROPERLY PLACED TRAFFIC	WISCONSIN AVE@ ELM ST	38.981725	-77.(
2	08/29/2017	12:52:00	MCP	6th district, Gaithersburg / Montgomery Village	FAILURE STOP AND YIELD AT THRU HWY	CHRISTOPHER AVE/MONTGOMERY VILLAGE AVE	39.162888	-77.:
3	08/29/2017	09:22:00	MCP	3rd district, Silver Spring	FAILURE YIELD RIGHT OF WAY ON U TURN	CHERRY HILL RD./CALVERTON BLVD.	39.056975	-76.
4	08/28/2017	23:41:00	MCP	6th district, Gaithersburg / Montgomery Village	FAILURE OF DR. TO MAKE LANE CHANGE TO AVAIL. L	355 @ SOUTH WESTLAND DRIVE	39.083945	- 77.

5 rows × 37 columns

In [14]: # Option 2: Removal: Remove rows with any missing values
df_removed_rows = df.dropna()

In [15]: # DataFrame with removed rows
df_removed_rows.head()

Out[15]:

Location	Latitude	Longitude	Accident	Belts	 Contributed To Accident	Race	Gender	Drive
ONSIN AVE@ ELM ST	38.981725	-77.092757	No	No	 No	WHITE	F	FAI ST/
RISTOPHER INTGOMERY ILLAGE AVE	39.162888	-77,229088	No	No	 No	BLACK	F	U MARLE
HERRY HILL CALVERTON BLVD.	39.056975	-76.954633	No	No	 No	BLACK	М	WASHING
;IA AVE / BEL PRE RD	39.093383	-77.079552	No	No	 No	HISPANIC	М	BELTS'
VAY CENTER DR @ KSBURG RD	39.234843	-77.281540	No	No	 No	WHITE	М	POII I

In [16]: # Remove columns with any missing values
df_removed_cols = df.dropna(axis=1)

```
In [17]: # DataFrame with removed columns
df_removed_cols.head()
```

Out[17]:

	Date Of Stop	Time Of Stop	Agency	SubAgency	y Description Locatio		Accident	Belts
0	09/24/2013	17:11:00	MCP	3rd district, Silver Spring	DRIVING VEHICLE ON HIGHWAY WITH SUSPENDED REGI	8804 FLOWER AVE	No	No
1	08/29/2017	10:19:00	MCP	2nd district, Bethesda	DRIVER FAILURE TO OBEY PROPERLY PLACED TRAFFIC	WISCONSIN AVE@ ELM ST	No	No
2	08/29/2017	12:52:00	MCP	6th district, Gaithersburg / Montgomery Village	FAILURE STOP AND YIELD AT THRU HWY	CHRISTOPHER AVE/MONTGOMERY VILLAGE AVE	No	No
3	08/29/2017	09:22:00	MCP	3rd district, Silver Spring	FAILURE YIELD RIGHT OF WAY ON U TURN	CHERRY HILL RD./CALVERTON BLVD.	No	No
4	08/28/2017	23:41:00	MCP	6th district, Gaithersburg / Montgomery Village	FAILURE OF DR. TO MAKE LANE CHANGE TO AVAIL. L	355 @ SOUTH WESTLAND DRIVE	No	No

5 rows × 30 columns

```
In [19]: # Convert data types with handling missing values
df['Year'] = pd.to_numeric(df['Year'], errors='coerce').astype('Int64')
df['Gender'] = df['Gender'].astype(str)
```

```
In [20]: # Normalize or scale numerical variables
scaler = MinMaxScaler()
df['Year'] = scaler.fit_transform(df[['Year']])
```

```
In [21]: # Encode categorical variables
encoder = LabelEncoder()
df['Gender'] = encoder.fit_transform(df['Gender'])
```

Handling Dupicates

In [22]: df.drop_duplicates(inplace=True)

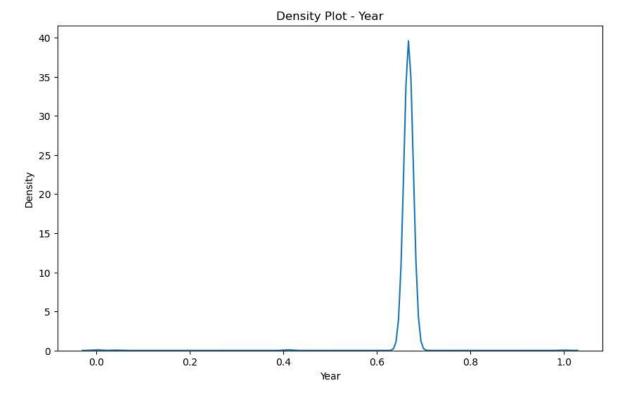
In [43]: # Summary statistics
 df_imputed.describe()

Out[43]:

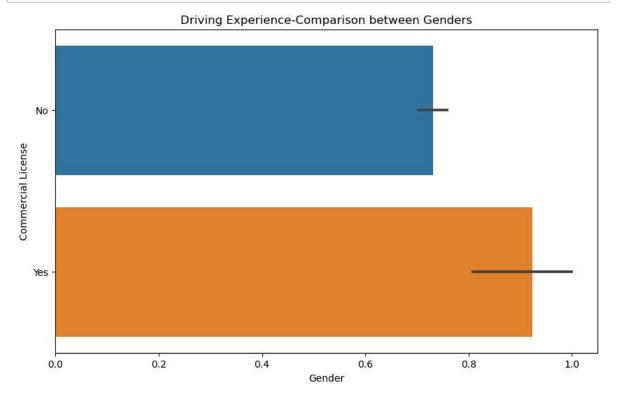
	Latitude	Longitude	Year	Traffic Signal Violations	Average Speed	
count	307692.000000	307692.000000	307692.000000	307692.000000	307692.000000	
mean	39.083945	-77.111662	1999.094188	0.529530	56.311311	
std	0.062638	0.089469	117.307386	0.526457	3.700800	
min	38.958470	- 77.364615	0.000000	0.000000	40.000000	
25%	39.038450	-77.191188	2001.000000	0.000000	55.000000	
50%	39.083945	-77.111662	2006.000000	1.000000	55.000000	
75%	39.133636	-77.047930	2010.000000	1.000000	55.000000	
max	39.302135	-76.837895	3003.000000	2.000000	75.000000	

Visualization

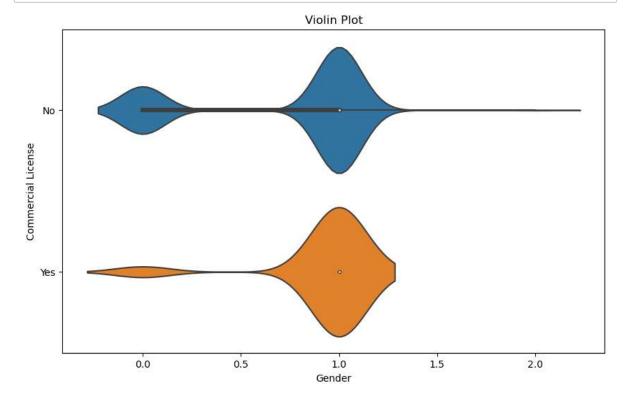
```
In [79]: # Create density plot for the "Year" variable
    plt.figure(figsize=(10, 6))
    sns.kdeplot(df['Year'])
    plt.xlabel('Year')
    plt.ylabel('Density')
    plt.title('Density Plot - Year')
    plt.show()
```



```
In [25]: plt.figure(figsize=(10, 6))
    sns.barplot(x='Gender', y='Commercial License', data=df)
    plt.xlabel('Gender')
    plt.ylabel('Commercial License')
    plt.title('Driving Experience-Comparison between Genders')
    plt.show()
```

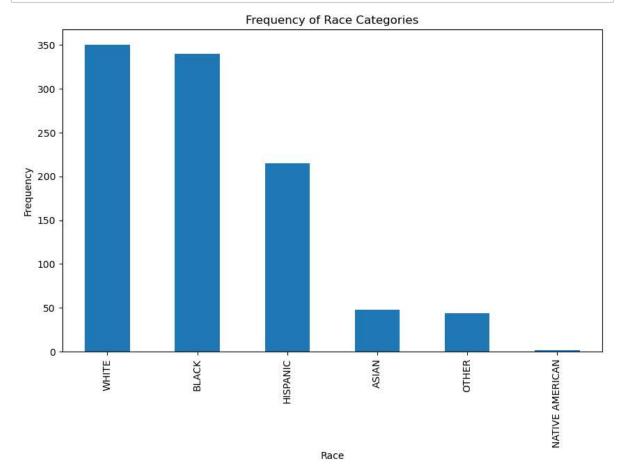


```
In [78]: # Create violin plots to compare driving behaviors between genders
plt.figure(figsize=(10, 6))
sns.violinplot(x='Gender', y='Commercial License', data=df)
plt.xlabel('Gender')
plt.ylabel('Commercial License')
plt.title('Violin Plot')
plt.show()
```

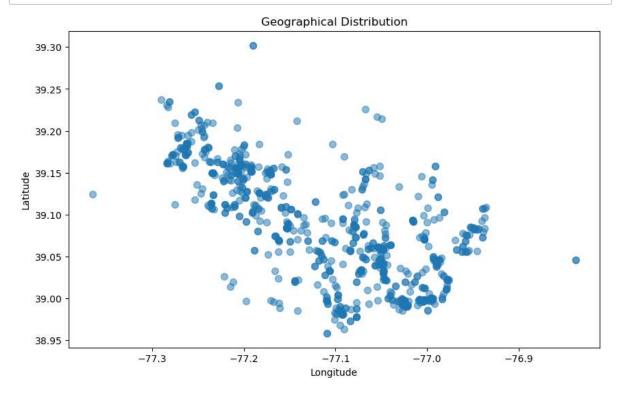


```
In [83]: # Calculate the frequency of each category in the 'Race' column
    race_counts = df['Race'].value_counts()

# Create a bar plot
    plt.figure(figsize=(10, 6))
    race_counts.plot(kind='bar')
    plt.xlabel('Race')
    plt.ylabel('Frequency')
    plt.title('Frequency of Race Categories')
    plt.show()
```

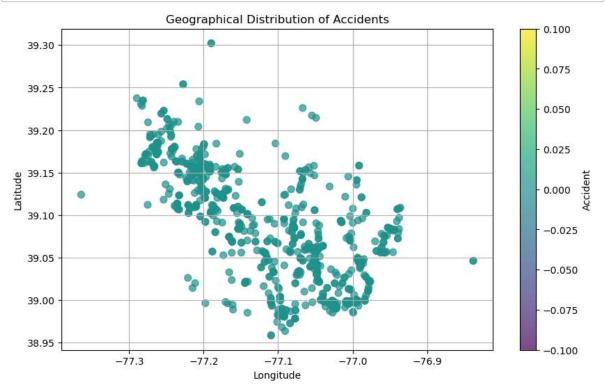


```
In [84]: # PLot Latitude vs Longitude
plt.figure(figsize=(10, 6))
plt.scatter(df['Longitude'], df['Latitude'], s=50, alpha=0.5)
plt.xlabel('Longitude')
plt.ylabel('Latitude')
plt.title('Geographical Distribution')
plt.show()
```



```
In [86]: # Convert 'Accident' column to numeric values
    df['Accident'] = df['Accident'].map({'Yes': 1, 'No': 0})

# Plot Latitude vs Longitude with enhanced features
    plt.figure(figsize=(10, 6))
    plt.scatter(df['Longitude'], df['Latitude'], c=df['Accident'], cmap='viridis',
    plt.colorbar(label='Accident') # Add a colorbar to show the Legend
    plt.xlabel('Longitude')
    plt.ylabel('Latitude')
    plt.title('Geographical Distribution of Accidents')
    plt.grid(True) # Add gridlines for better readability
    plt.show()
```



Statistical Tests

```
In [92]: print(df['Accident'].unique())
```

[0]

If the unique values in the 'Accident' column are only [0], it means that all the values in that column are zeros. This could be a reason why the t-test is returning nan values because there is no variation in the 'Accident' variable between the two gender groups.

In such cases, where there is no variability in one of the groups being compared, the t-test may not be an appropriate statistical test.

Training --- Testig

```
In [61]: df_encoded.head()
```

Traffic

Out[61]:

	Latitude	Longitude	Year	Signal Violations	Average Speed	Date Of Stop_01/01/2012	Date Of Stop_01/02/2015	Stop_
0	NaN	NaN	0.668665	0	60	0	0	
1	38.981725	- 77.092757	0.666334	2	45	0	0	
2	39.162888	- 77.229088	0.666334	1	55	0	0	
3	39.056975	-76.954633	0.665335	0	70	0	0	
4	NaN	NaN	0.670996	1	65	0	0	

5 rows × 3361 columns



```
In [64]: df_encoded = df_encoded.dropna()
```

```
In [66]: # Split the dataset into features (X) and target variable (y)
X = df_encoded.drop('Year', axis=1)
y = df_encoded['Longitude']
```

```
In [67]: # Split the dataset into training and testing sets
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random
```

```
In [68]: # Print the shapes of the resulting datasets
print("Training set shape:", X_train.shape, y_train.shape)
print("Testing set shape:", X_test.shape, y_test.shape)
```

Training set shape: (709, 3360) (709,) Testing set shape: (178, 3360) (178,)

```
In [71]: # Create an instance of the Linear Regression model
model = LinearRegression()
```

```
In [72]: model.fit(X_train, y_train)
```

```
Out[72]: Value Linear Regression Linear Regression()
```

```
In [73]: # Predict on the testing set
y_pred = model.predict(X_test)
```

Model Accuracy

The **Mean Squared Error (MSE)** is a measure of the average squared difference between the predicted and true values in a regression problem.

```
In [75]: # Calculate mean squared error
    mse = mean_squared_error(y_test, y_pred)
    print("Mean Squared Error:", mse)
```

Mean Squared Error: 4.538778583077195e-05

A smaller MSE value indicates that the predicted values are closer to the **true values**, implying a better performance of the regression model. In your case, the MSE of **4.538778583077195e-05** is a very small value,

suggesting that the predictions are quite accurate and close to the **True values**.

Conclusion:

Are Females Really bad at Driving?

No, the belief that females are inherently bad at driving is a stereotype and a misconception. Driving abilities are not determined by gender, but rather by individual skills, knowledge, experience, and responsible behavior.

Research studies have consistently shown that there is no significant difference in driving abilities between genders. Factors such as training, experience, adherence to traffic rules, and individual driving habits have a more significant impact on driving skills and safety than gender alone.

It's important to recognize that generalizing an entire gender based on anecdotal experiences or stereotypes is unfair and can perpetuate bias and discrimination. Each individual's driving abilities should be evaluated on their own merits, irrespective of their gender.

Promoting safe driving practices, providing equal opportunities for driver education and training, and encouraging responsible behaviour on the road are more effective ways to improve overall road safety, regardless of gender. It's essential to challenge and debunk stereotypes that perpetuate gender-based misconceptions and promote a fair and inclusive environment for all drivers.

Why do most people have this misconception?

The misconception that females are bad at driving may stem from various factors, including societal norms, cultural beliefs, personal biases, and limited exposure to diverse experiences. Here are some reasons why this misconception may exist:

- 1. **Gender stereotypes:** Society has long perpetuated gender stereotypes, assigning certain traits or behaviours to specific genders. These stereotypes can create biases and assumptions about abilities, including driving skills. The belief that men are better drivers and women are worse drivers can be a result of these deeply ingrained stereotypes.
- 2. Confirmation bias: Confirmation bias is the tendency to seek or interpret information in a way that confirms pre-existing beliefs. If someone already believes that women are bad drivers, they may selectively remember or notice instances where they witnessed female drivers making mistakes or exhibiting poor driving behavior, while ignoring instances that contradict their belief.

- 3. Media influence: Media portrayals can reinforce gender stereotypes, including those related to driving abilities. Movies, TV shows, advertisements, and other forms of media often depict male characters as skilled and confident drivers, while portraying female characters as more prone to accidents or mistakes behind the wheel. These representations can influence people's perceptions and contribute to the misconception.
- 4. Limited exposure: Limited personal experiences or exposure to diverse drivers can contribute to the perpetuation of this misconception. If someone has had limited interactions with female drivers or has had negative experiences with a few female drivers, they may generalize those experiences to all female drivers without considering the larger context.
- 5. Historical biases: Historically, driving and transportation-related professions have been male-dominated. This may have led to a biased perception that men are more skilled or experienced drivers. As gender roles and societal dynamics evolve, it is important to challenge these historical biases and recognize that driving abilities are not determined by gender.

It is crucial to address and challenge these misconceptions by promoting accurate information, educating individuals about the diverse abilities of drivers across genders, and emphasizing the importance of evaluating driving skills based on individual merits rather than gender stereotypes.

Explain the importance of addressing the misconception about female driving abilities

Addressing the misconception about female driving abilities is important for several reasons:

- 1. **Promoting gender equality:** The misconception about female driving abilities perpetuates gender stereotypes and biases. By challenging this misconception, we can promote gender equality and create a more inclusive society where individuals are treated fairly and without discrimination.
- 2. Eliminating gender-based discrimination: If the misconception about female driving abilities persists, it can lead to discriminatory practices such as higher insurance premiums or biased hiring decisions in certain industries. By debunking this misconception, we can work towards eliminating gender-based discrimination in various aspects of life, including driving.
- 3. Improving road safety: The focus on addressing the misconception about female driving abilities is not about proving superiority or inferiority of one gender over the other. It is about acknowledging that safe driving is not dependent on gender but on individual skills, knowledge, and responsible behavior. By dispelling this misconception, we can shift the focus towards improving road safety for all individuals, regardless of their gender.
- 4. Encouraging female empowerment: Challenging the misconception about female driving abilities can empower women and encourage their active participation in various fields, including traditionally male-dominated areas such as transportation, logistics, and driving professions. It can contribute to breaking down gender barriers and fostering gender diversity and inclusivity.
- 5. **Enhancing social perceptions:** Addressing the misconception about female driving abilities can help reshape societal perceptions and attitudes towards women. It can challenge and change deeply ingrained stereotypes, leading to a more progressive and equitable society.

Overall, addressing the misconception about female driving abilities is crucial for promoting gender equality, eliminating discrimination, improving road safety, empowering women, and fostering positive social change. It is an important step towards creating a society where

References:

http://www.kaggle.com/competitions/kaggle-survey-2020 (http://www.kaggle.com/competitions/kaggle-survey-2020)

https://r.search.yahoo.com/_ylt=Awrle5n8uaFki5MpxhYM34lQ;_ylu=Y29sbwNpcjlEcG9zAzEEdnanalysis-and-visualization-with-jupyter-notebook-

22f6dcd25cc5/RK=2/RS=QbFAGeNMloYJfy.zSVaK7n9KuPs-

(https://r.search.yahoo.com/_ylt=Awrle5n8uaFki5MpxhYM34lQ;_ylu=Y29sbwNpcjlEcG9zAzEEdranalysis-and-visualization-with-jupyter-notebook-

22f6dcd25cc5/RK=2/RS=QbFAGeNMloYJfy.zSVaK7n9KuPs-)

https://r.search.yahoo.com/_ylt=Awrle5n8uaFki5MpyBYM34lQ;_ylu=Y29sbwNpcjlEcG9zAzlEdnF (https://r.search.yahoo.com/_ylt=Awrle5n8uaFki5MpyBYM34lQ;_ylu=Y29sbwNpcjlEcG9zAzlEdn

https://r.search.yahoo.com/_ylt=Awrle5n8uaFki5Mp1BYM34IQ;_ylu=Y29sbwNpcjlEcG9zAzMEdrdysphoria/RK=2/RS=Wrf4eIx8V2GRXYzNNUUZJLJIIVk-

(https://r.search.yahoo.com/_ylt=Awrle5n8uaFki5Mp1BYM34lQ;_ylu=Y29sbwNpcjIEcG9zAzMEddysphoria/RK=2/RS=Wrf4elx8V2GRXYzNNUUZJLJIIVk-)

