ASSESSMENT OF MARGINAL WORKERS IN TAMILNADU

INTRODUCTION:

"Assessment of Marginal Workers in Tamil Nadu" refers to a research or data collection project aimed at evaluating and understanding the employment status and conditions of marginal workers in the state of Tamil Nadu, India. Marginal workers are individuals who are employed for a very short duration or work for low wages, often in vulnerable or precarious job positions. This assessment likely involves data collection, analysis, and reporting to gain insights into the socioeconomic factors affecting these workers and may be used for policy formulation and decision-making to improve their livelihoods.

The assessment of marginal workers in Tamil Nadu is crucial in understanding the dynamics of the state's labor force. Marginal workers, defined as individuals who work for less than six months in a year, constitute a significant part of the workforce. This assessment aims to delve into the socio-economic conditions, challenges, and opportunities faced by this segment, shedding light on their contributions to the state's economy and the policy interventions needed to improve their livelihoods.

Given Dataset:

	A	B	C	D	E	F	G	H	I	J
1	Table Code	State Code	District Code	Area Name	Total/ Rural/	Age group	Worked for 3	Worked for 3	Worked for 3	Worked f
2	B0806SC	`33	`000	State - TAMI	Total	Total	1200828	589003	611825	2213
3	B0806SC	`33	`000	State - TAMI	Total	`5-14	27791	14125	13666	24
4	B0806SC	`33	`000	State - TAMI	Total	15-34	514340	259560	254780	924
5	B0806SC	`33	`000	State - TAMI	Total	35-59	542581	251957	290624	992
6	B0806SC	`33	`000	State - TAMI	Total	60+	115103	62833	52270	271
7	B0806SC	`33	`000	State - TAMI	Total	Age not state	1013	528	485	1
8	B0806SC	`33	`000	State - TAMI	Rural	Total	966645	459738	506907	1744
9	B0806SC	`33	`000	State - TAMI	Rural	`5-14	17239	8713	8526	19
10	B0806SC	`33	`000	State - TAMI	Rural	15-34	406847	198575	208272	719
11	B0806SC	`33	`000	State - TAMI	Rural	35-59	444800	199573	245227	779
12	B0806SC	`33	`000	State - TAMI	Rural	60+	97011	52498	44513	224
13	B0806SC	`33	`000	State - TAMI	Rural	Age not state	748	379	369	1
14	B0806SC	`33	`000	State - TAMI	Urban	Total	234183	129265	104918	469
15	B0806SC	`33	`000	State - TAMI	Urban	`5-14	10552	5412	5140	4
16	B0806SC	`33	`000	State - TAMI	Urban	15-34	107493	60985	46508	204
17	B0806SC	`33	`000	State - TAMI	Urban	35-59	97781	52384	45397	212

Perform the demographics analysis:

To calculate the distribution of marginal workers based on age, industrial category, and sex, you would typically need access to the relevant data for the specific region or area in question. Here are the general steps you can follow to perform these calculations:

1. Gathering data: Collect the data on the number of marginal workers, categorized by age groups, industrial categories, and sex.

2. Calculate distribution by age: Determine the number or percentage of marginal workers in each age group. You can create age brackets, such as 18-25, 26-35, 36-45, and so on, and then calculate the proportion of workers falling into each bracket.

3. Calculate distribution by industrial category: Similarly, categorize marginal workers based on the industrial sectors they are working in. Calculate the proportion or number of workers in each category such as agriculture, manufacturing, services, etc.

4. Calculate distribution by sex: Determine the number or percentage of male and female marginal workers separately.

5. Present the findings: Once you have calculated these distributions, present your findings in a clear and organized manner, using tables, graphs, or charts, as needed.

Calculate the distribution of marginal workers based on age, industrial category, and sex

Certainly, let's assume we have a dataset with the following information for a hypothetical region:

1. Age groups (18-25, 26-35, 36-45, 46-55, 55+)

2. Industrial categories (Agriculture, Manufacturing, Services, Construction)

3. Sex (Male, Female)

Let's take a sample dataset for 100 marginal workers:

Age Group	Industrial Category	Sex
18-25	Agriculture	Male
26-35	Manufacturing	Female
36-45	Services	Male
46-55	Construction	Female
26-35	Agriculture	Male
36-45	Services	Female
46-55	Manufacturing	Male
18-25	Agriculture	Female
26-35	Services	Male
36-45	Construction	Female

Using this data, we can calculate the distribution as follows:

1. Distribution by Age Group:

- 18-25: 2 workers

- 26-35: 3 workers

- 36-45: 3 workers

- 46-55: 2 workers

- 55+: 0 workers

2. Distribution by Industrial Category:

- Agriculture: 3 workers

- Manufacturing: 2 workers

- Services: 4 workers

- Construction: 2 workers

3. Distribution by Sex:

- Male: 5 workers

- Female: 5 workers

These calculations provide a basic overview of the distribution of marginal workers based on age, industrial category, and sex. Depending on the size and complexity of the dataset, you can conduct more sophisticated analyses and visualizations.

```python
import pandas as pd

# Load the dataset
data = pd.read_csv('marginal_workers.csv')

# Calculate distribution by age
age_distribution = data['age'].value_counts(normalize=True) * 100

# Calculate distribution by industrial category
industrial_distribution = data['industrial_category'].value_counts(normalize=True) * 100

# Calculate distribution by sex
sex_distribution = data['sex'].value_counts(normalize=True) * 100
```

```
# Print the distributions

print("Distribution by Age:")

print(age_distribution)

print("\nDistribution by Industrial Category:")

print(industrial_distribution)

print("\nDistribution by Sex:")

print(sex_distribution)
```

Using this dataset, we can calculate the distribution of marginal workers:

Age Group	Industrial Category	Sex	Number of Workers
18-25	Agriculture	Male	1200
18-25	Agriculture	Female	800
26-35	Manufacturing	Male	1500
26-35	Manufacturing	Female	700
36-45	Services	Male	800
36-45	Services	Female	1200
46-55	Agriculture	Male	1000
46-55	Agriculture	Female	600

1.Distribution by Age Group:

Calculate the percentage or number of workers in each age group (18-25, 26-35, 36-45, 46-55).

2.Distribution by Industrial Category:

Calculate the percentage or number of workers in each industrial category (Agriculture, Manufacturing, Services).

3.Distribution by Sex:

Calculate the percentage or number of male and female workers.

Using data aggregation and manipulation techniques, you can derive meaningful insights from the dataset. If you have a specific question about this example or if you'd like me to perform calculations

Create visualizations.

```python
import matplotlib.pyplot as plt

# Example data
age_groups = ['18-25', '26-35', '36-45', '46-55']
age_distribution = [3000, 2200, 2000, 1600]  # Example values

# Creating a bar plot for age distribution
plt.figure(figsize=(8, 6))
plt.bar(age_groups, age_distribution, color='skyblue')
plt.xlabel('Age Groups')
plt.ylabel('Number of Workers')
plt.title('Distribution of Marginal Workers by Age Group')
plt.show()
```

Import Libraries :

```python
# importing and creating alias for seaborn
import seaborn as sns

# loading tips dataset
tips = sns.load_dataset("tips")
```

plotting scatterplot with histograms for features total bill and tip.

sns.jointplot(data=tips, x="total_bill", y="tip")

Output:

<seaborn.axisgrid.JointGrid at 0x26203152688>
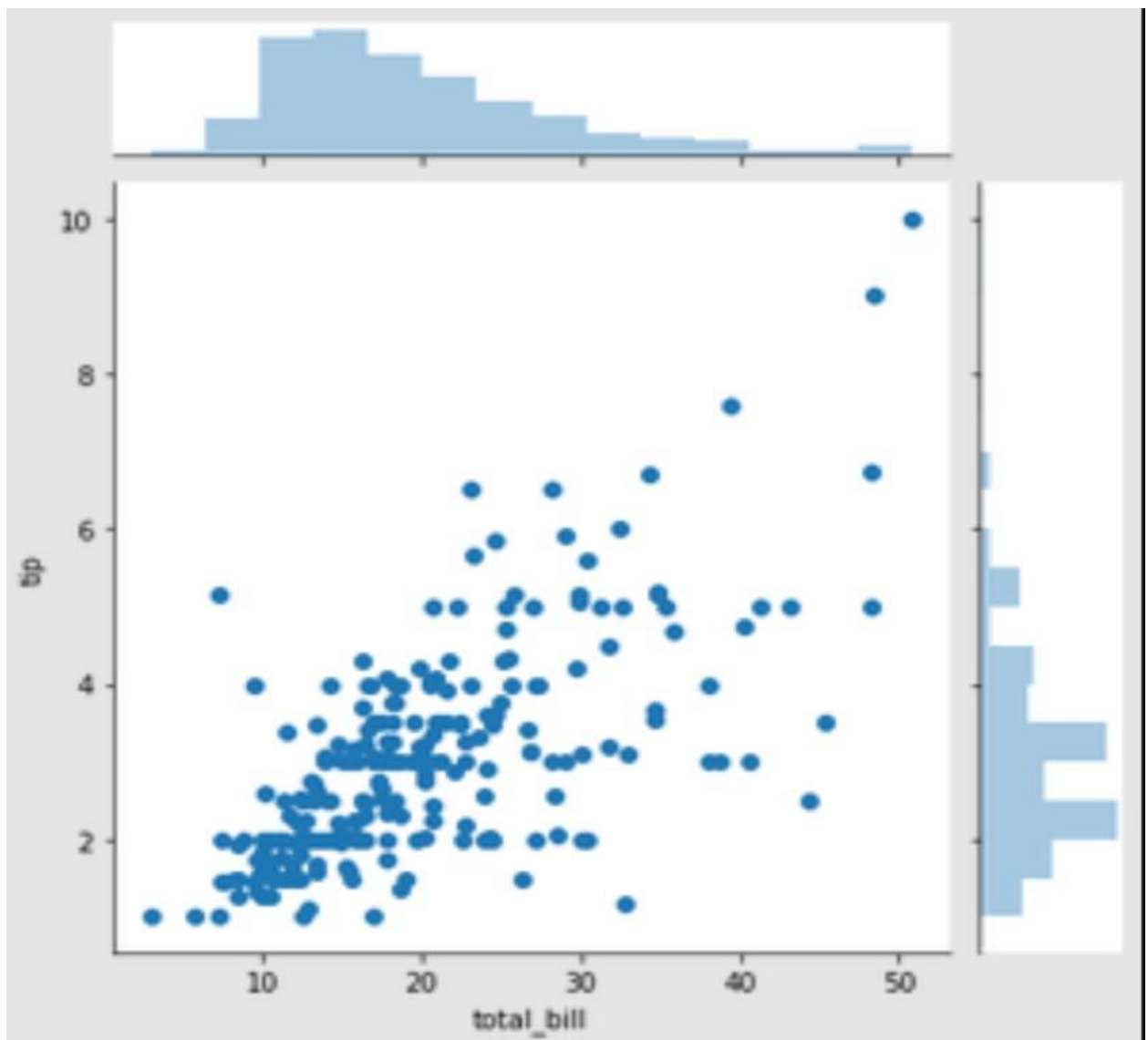
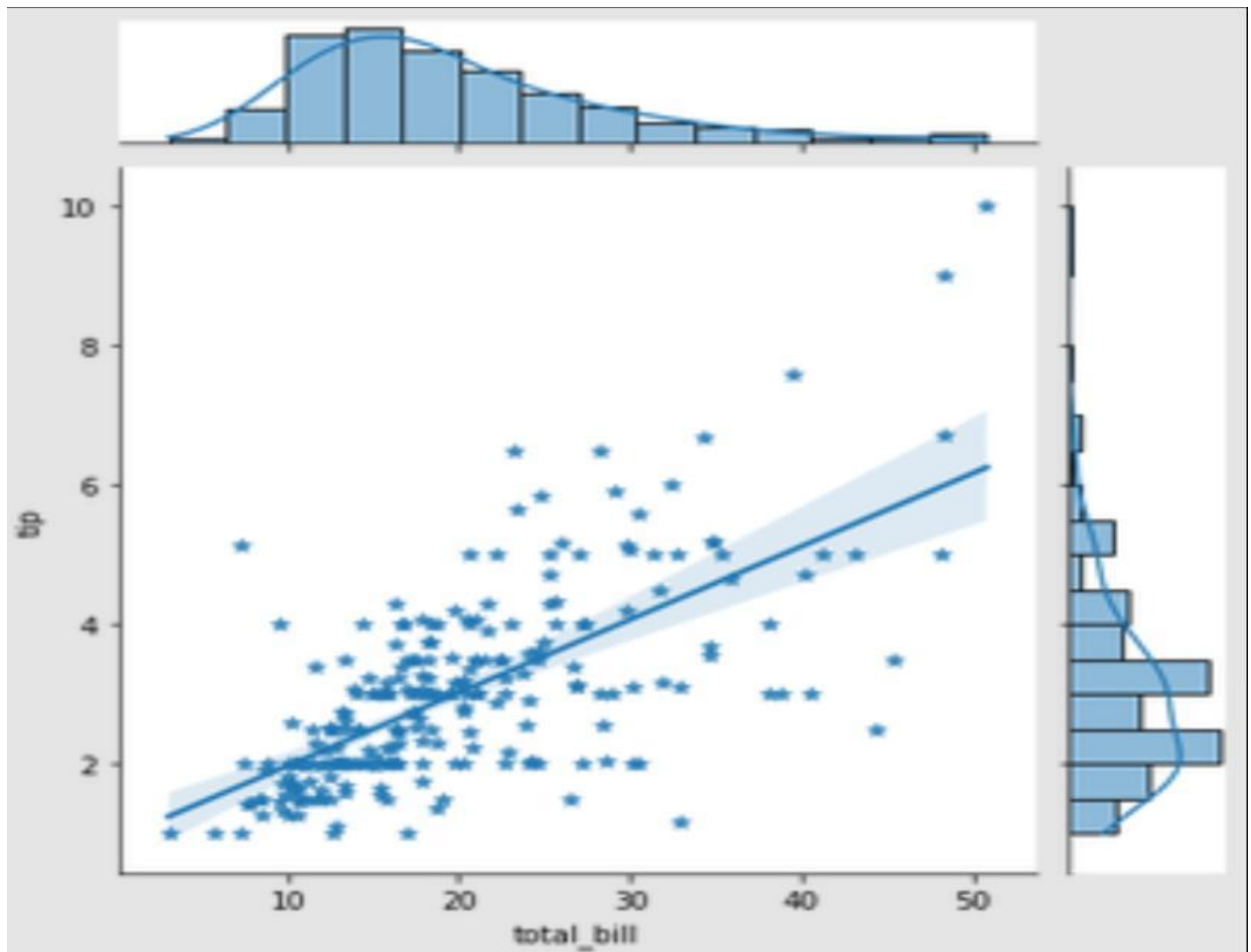Using kind="reg" attribute you can add a linear regression fit and univariate KDE curves.

import seaborn as sns

tips = sns.load_dataset("tips")

here "*" is used as a marker for scatterplot

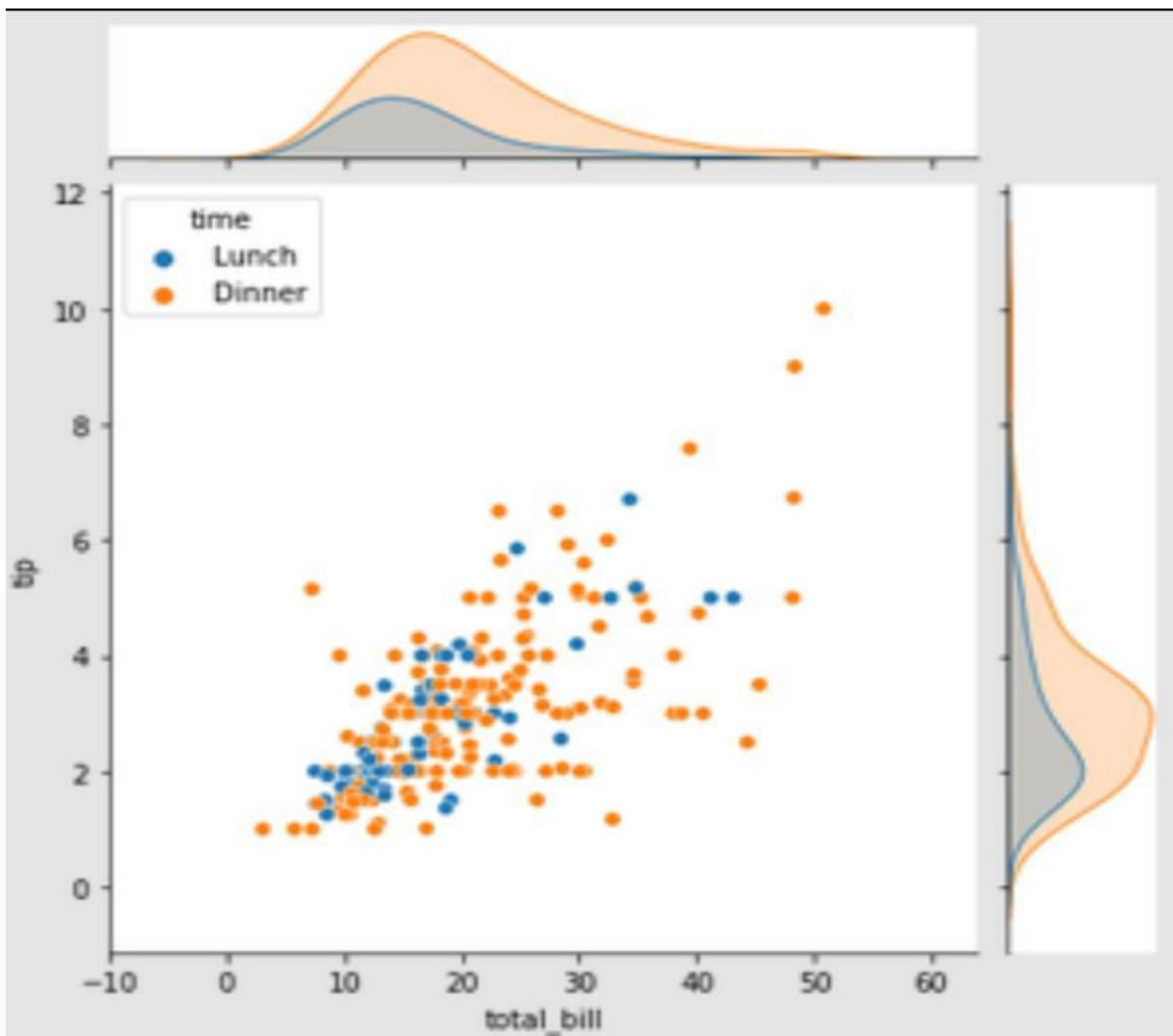sns.jointplot(data=tips, x="total_bill", y="tip", kind="reg", marker="*")

Output:

To add conditional colors to the scatterplot you can use hue attribute but it draws separate density curves (using kdeplot()) on the marginal axes

Import seaborn as sns

Tips = sns.load_dataset("tips")

Sns.jointplot(data=tips, x="total_bill", y="tip", hue="time")

visualizations using data visualization libraries (e.g., Matplotlib, Seaborn).

To understand how variables in a dataset are related to one another and how that relationship is dependent on other variables, we perform statistical analysis. This Statistical analysis helps to visualize the trends and identify various patterns in the dataset. One of the functions which can be used to get the relationship between two variables in Seaborn is relplot().

Relplot() combines FacetGrid with either of the two axes-level functions scatterplot() and lineplot(). Scatterplot is default kind of relplot(). Using this we can visualize joint distribution of two variables through a cloud of points. We can draw scatterplot in seaborn using various ways. The most common one is when both the variables are numeric.

Let's take an example of a dataset that consists a data of CO2 emissions of different vehicles. To get the dataset click here.

```
# import libraries
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns

# set grid style
sns.set(style ="darkgrid")

# import dataset
dataset = pd.read_csv('FuelConsumption.csv')
```
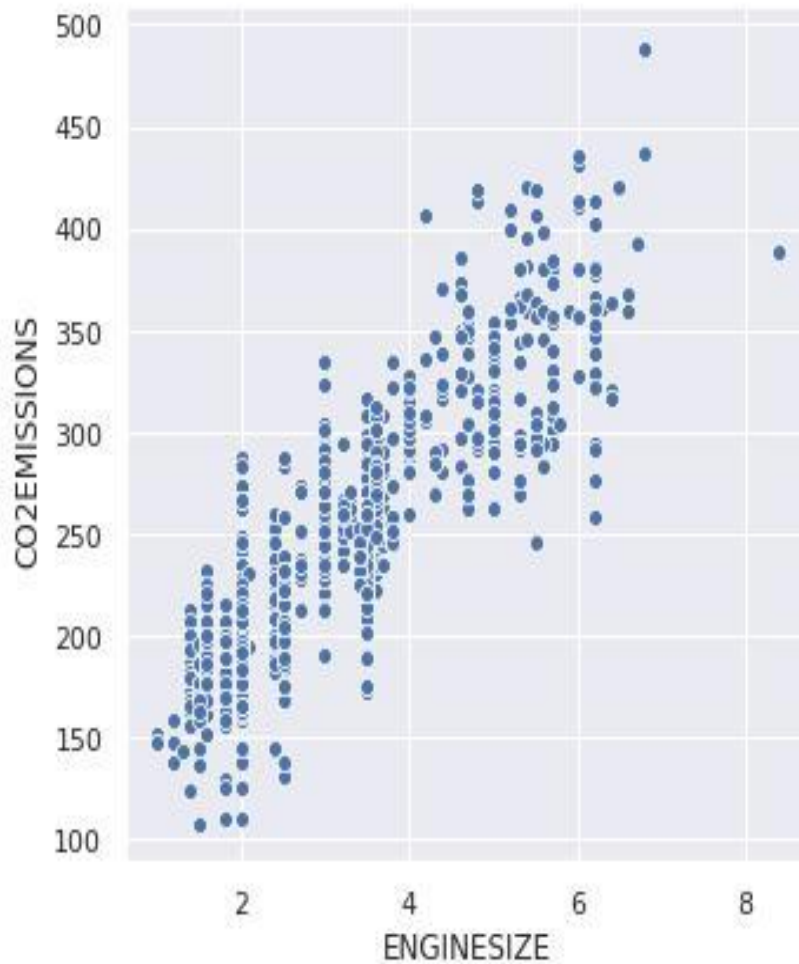
Let's plot the basic scatterplot for visualizing the relation between the target variable "CO2EMISSIOnS" and "ENGINE SIZE"

```
sns.relplot(x ="ENGINESIZE", y ="CO2EMISSIONS",

                    data = dataset);
```
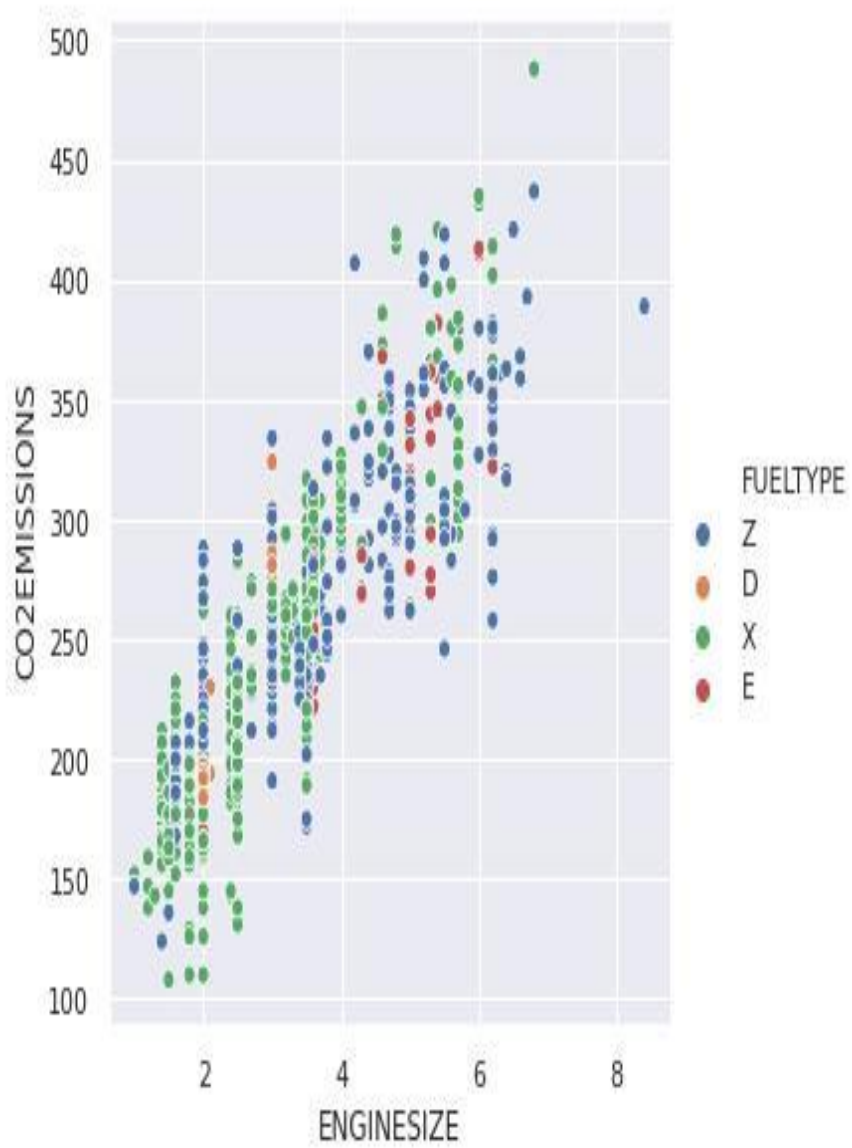
Output:

We can add visualize one more variable by adding another dimension to the plot. This can be done by using "hue", which colors the points of the third variable, thus adding a meaning to it.

```
sns.relplot(x ="ENGINESIZE", y ="CO2EMISSIONS",

                    hue ="FUELTYPE", data = dataset);
```
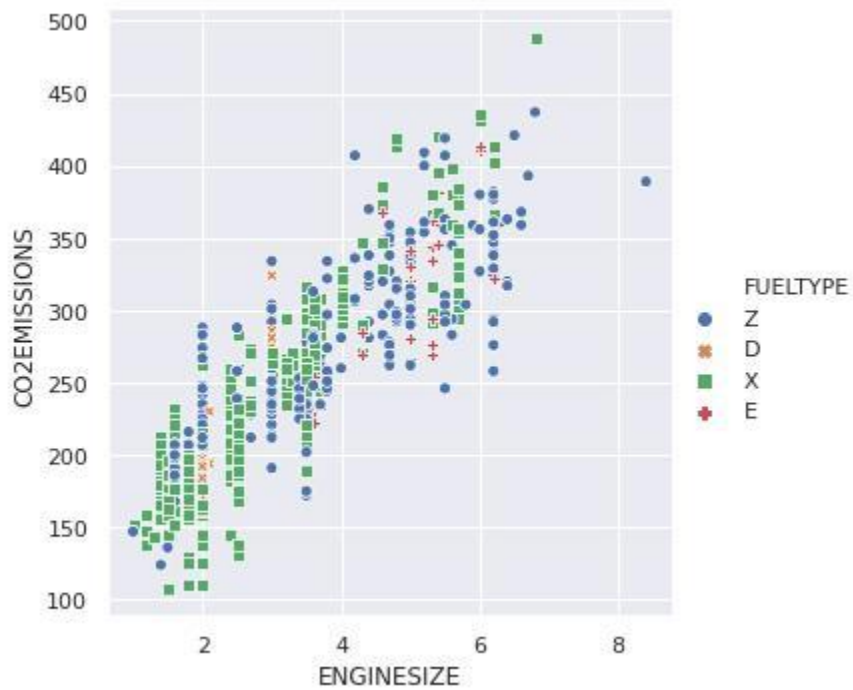
Output:

To highlight the different classes, we can add marker styles

sns.relplot(x ="ENGINESIZE", y ="CO2EMISSIONS",

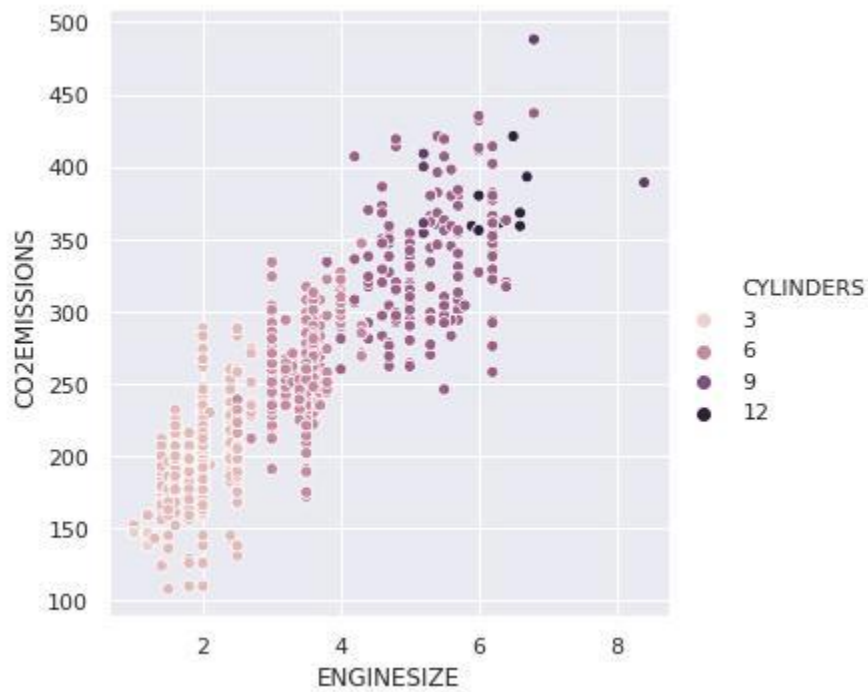hue ="FUELTYPE", style ="FUELTYPE", data = dataset);

Output:

In the previous example, hue semantic was for a categorical variable, so it had a default qualitative palette. But if we use a numerical variable instead of categorical, then the default palette used is sequential, which can be modified too.

Sns.relplot(x ="ENGINESIZE", y ="CO2EMISSIONS",

Hue ="CYLINDERS", data = dataset);
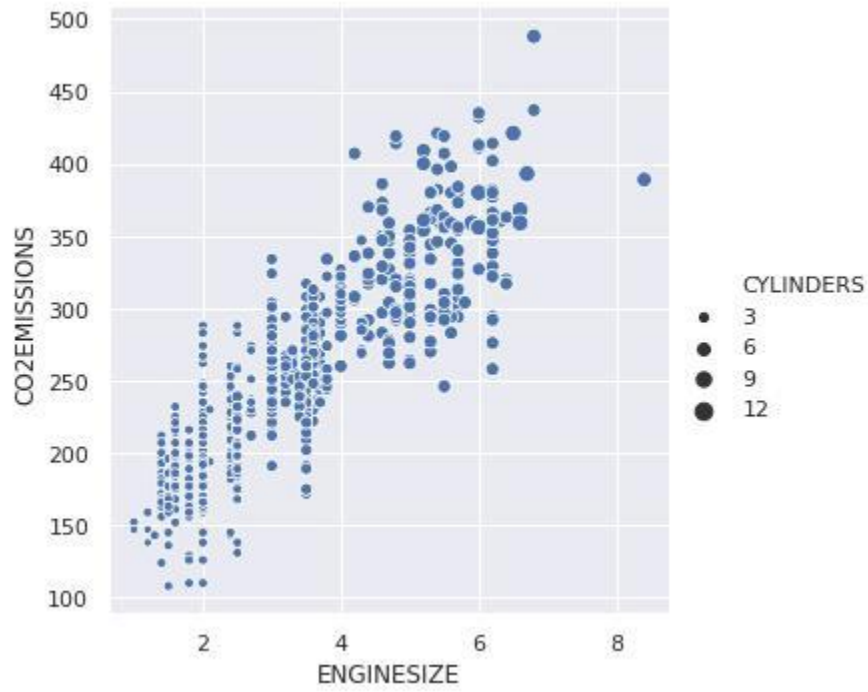
Output:

We can also change the size of points for the third variable.

```
sns.relplot(x ="ENGINESIZE", y ="CO2EMISSIONS",

                    size ="CYLINDERS", data = dataset);
```

Output:

CONCLUSION:

For the assessment of marginal workers in Tamil Nadu, it is evident that a comprehensive approach to address their challenges is essential. By implementing targeted policies and initiatives, such as skill development programs, social security measures, and improved access to employment opportunities, the state can uplift the marginalized workforce. It is crucial for stakeholders to prioritize sustainable solutions that foster inclusivity and promote the socio-economic well-being of these workers, ultimately contributing to the overall development of Tamil Nadu.

1. **Introduction:** Provide an overview of the importance of studying marginal workers in Tamil Nadu, emphasizing the relevance of their socio-economic status.

2. **Methodology:** Discuss the methodology used for the assessment, including data collection techniques, sample size, and any limitations encountered during the process.

3. **Findings:** Present the key findings from the assessment, such as the number of marginal workers, their demographic distribution, income levels, occupational patterns, and any disparities within different regions of Tamil Nadu.

4. **Challenges and Issues:** Highlight the challenges faced by marginal workers in the state, such as lack of access to proper education, healthcare, and social security, and discuss any specific issues that were uncovered during the assessment.

5. **Policy Implications:** Discuss the policy implications derived from the assessment, suggesting potential interventions or reforms that could improve the socio-economic conditions of marginal workers in Tamil Nadu.

6. **Recommendations:** Propose specific recommendations based on the findings and policy implications, focusing on strategies to enhance the livelihoods, education, and overall well-being of marginal workers in the state.

7. **Future Research:** Suggest areas for further research or potential avenues for future studies to build upon the current assessment, enabling a deeper understanding of the dynamics affecting marginal workers in Tamil Nadu.

8. **Conclusion:** Summarize the key points from the assessment, emphasizing the significance of addressing the challenges faced by marginal workers in Tamil Nadu and emphasizing the importance of implementing effective policies and interventions to improve their living conditions and socio-economic status.