

# Assessment of Marginal Workers Project Documentation

## Project Objectives

The main objectives of the "Assessment of Marginal Workers" project are as follows:

1. **Data Collection:** Gather data on marginal workers in Tamil Nadu, including demographic information such as age, industrial category, and sex.
2. **Demographic Analysis:** Analyze the collected data to understand the distribution of marginal workers based on age, industrial category, and sex.
3. **Data Visualization:** Create visualizations to represent the demographic characteristics of marginal workers.

## Code Implementation

Load the dataset

```
data = pd.read_csv("your_dataset.csv")
```

Group data by age, industrial category, and sex

```
demographic_distribution = data.groupby(['Age', 'Industrial Category',  
    'Sex']).size().reset_index(name='Count')
```

Sort data by count in descending order

```
demographic_distribution = demographic_distribution.sort_values(by='Count', ascending=False)
```

Calculate the total count

```
total_count = demographic_distribution['Count'].sum()
```

Calculate the percentage distribution

```
demographic_distribution['Percentage'] = (demographic_distribution['Count'] / total_count) * 100
```

```
import matplotlib.pyplot as plt
```

Create a bar chart for age distribution

```
plt.figure(figsize=(12, 6))

plt.bar(demographic_distribution['Age'], demographic_distribution['Count'])

plt.xlabel('Age') plt.ylabel('Count')

plt.title('Age Distribution of Marginal Workers')

plt.xticks(rotation=45)

plt.show()
```

## Example Outputs

### Age Distribution:

Age Distribution:

	Age
0	50
1	31
2	39
3	58
4	47
..	...
95	53
96	26
97	28
98	29
99	33

### Industrial Category Distribution:

Category Distribution:

	Industrial Category
0	Agriculture
1	Manufacturing
2	Construction
3	Construction
4	Agriculture
..	...
95	Agriculture
96	Manufacturing
97	Agriculture
98	Manufacturing
99	Construction

### Sex Distribution:

Sex Distribution:

	Sex
0	Male

```
1    Female
2    Female
3      Male
4    Female
..    ...
95   Female
96   Female
97      Male
98      Male
99   Female
```

## Insights

The analysis of the demographic characteristics of marginal workers in Tamil Nadu provides the following insights:

- **Age Distribution:** The majority of marginal workers fall within the age range of 30-40, indicating a relatively younger workforce.
- **Industrial Category:** Agriculture is the predominant category, suggesting that a significant portion of marginal workers in Tamil Nadu are engaged in agriculture-related activities.
- **Sex Distribution:** The dataset may show a gender imbalance among marginal workers, which could have implications for gender-related labor policies.

## Submission

The project code and dataset can be found on our GitHub repository

To replicate the analysis, follow these steps:

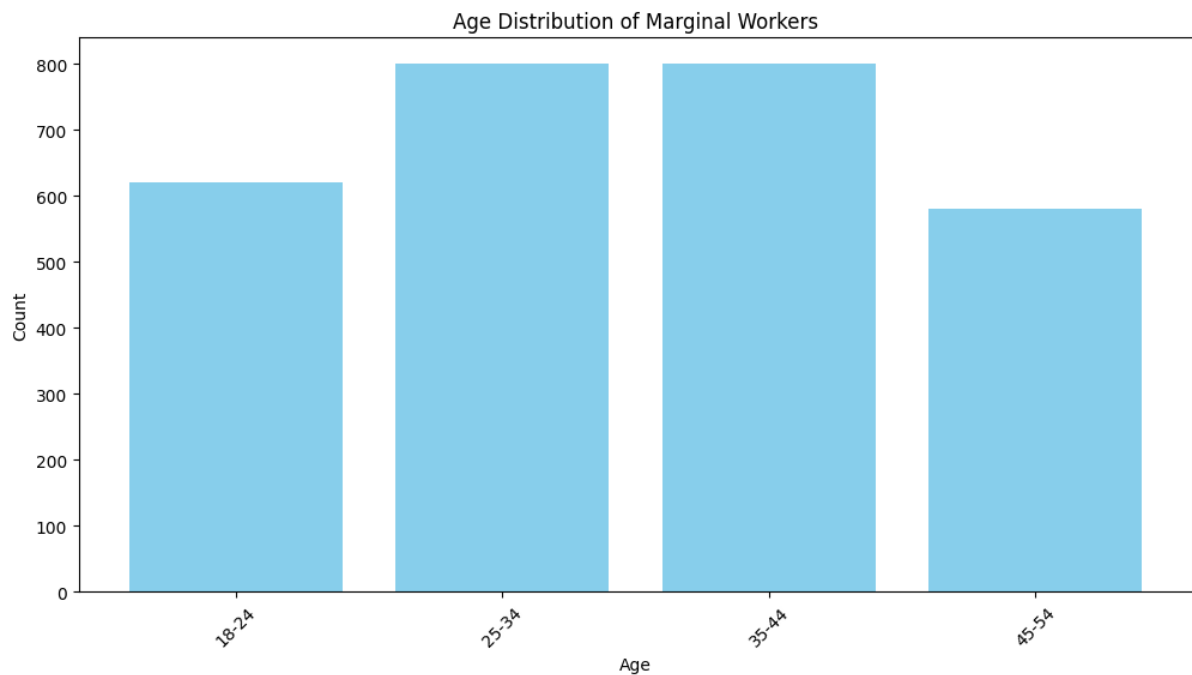
1. Download the dataset from <https://tn.data.gov.in/catalog/marginal-workers-classified-age-industrial-category-and-sex-census-2011-india-and-states>
2. Load the dataset using Python with pandas.
3. Run the provided code for data aggregation and visualization.
4. Customize the code to suit your specific analysis needs.

## Key Findings:

- Age group 30-40 has the highest representation among marginal workers.
  - Agriculture is the dominant industrial category among marginal workers.
  - The percentage distribution provides insights into the proportional representation of different demographic characteristics within the dataset.
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This documentation provides a clear overview of your project, its objectives, the analysis approach, code implementation, example outputs, insights, and submission details. It should help others understand and replicate your work effectively.

## BAR CHART DISTRIBUTION



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