Analyzing Demographics of Marginal Workers in Tamil Nadu

Phase-1 Document submission

1.Introduction:

The project aims to provide a comprehensive understanding of the age, industrial category and sex distribution among marginal workers and represent this data through visualization.

2.Project objectives:

❖ *Demographic Analysis:*

The primary objective is to conduct a demographic analysis of marginal workers in Tamil Nadu.

❖ *Age and Gender Distribution:*

Explore and visualize the distribution of marginal workers by age and gender to identify patterns.

❖ *Industrial Categories:*

Analyze the distribution of marginal workers across different industrial categories.

❖ *Socioeconomic Analysis:*

Gain insight into the socioeconomic status of marginal workers based on their demographics.

3.Analysis Approach:

➢ *Data Collection*
➢ *Data pre-processing*
➢ *Exploratory Data Analysis(EDA)*
➢ *Demographic Analysis*
➢ *Industrial Category Analysis*
➢ *Socioeconomic Insights*
➢ *Visualizations*

✂ *Data Collection:*

Dataset Link: https://tn.data.gov.in/resource/marginal-workers-classified-age-industrial-category-and-sex-scheduled-caste-2011-tamil

✂ *Data pre-processing:*

★ *Clean the data.*
★ *Pre-process the data.*
★ *Handling the missing values.*
★ *Format the data for analysis.*

✂ *Exploratory Data Analysis(EDA):*

Calculate basic statistics such as mean, medians and standard deviation.

✂ *Demographic analysis:*

★ *Segment the dataset by age and gender to calculate distributions and percentage.*
★ *Visualize this information using appropriate charts and graphs.*

✂ *Industrial Category Analysis:*

★ *Categorize workers by their respective industries.*

★ *Explore the distribution of workers among these categories and create visualizations to represent this distribution.*

⌁ Socioeconomic Insights:
   Analyze the data to draw insights into the socioeconomic status of marginal workers.

⌁ Visualizations:
   Select suitable visualization types based on the nature of the data. Example: Bar chart for age and gender distribution, pie charts for industry categories.

4. visualization Selection:

✧ *Age and Gender Distribution:*
Bar charts: Use bar chart to display the distribution of marginal workers by age and gender.

✧ *Industrial Categories:*
Pie charts: create a pie chart to represent the percentage of marginal workers in different industrial categories, highlighting the most prominent sector.

✧ *Socioeconomic Insights:*
Heat maps: Use heat maps to visualize correlations between age, gender and industrial category, providing a comprehensive view of the socioeconomic landscape.

5.Conclusion:

This aims to analyze the demographic characteristics of marginal workers in Tamil Nadu. By defining clear objectives, outlining the analysis approach, and selecting appropriate visualization, we will work towards a comprehensive understanding of this important demographic group.