

TASK -1

Objective

This assignment aims to use **Power BI** to create a **bar chart or histogram** that visualizes the distribution of a continuous or categorical variable. The chosen dataset explores India's **population distribution by age group and gender** across various census years (2001–2031), derived from official data released by the **Ministry of Statistics and Programme Implementation (MoSPI)**.

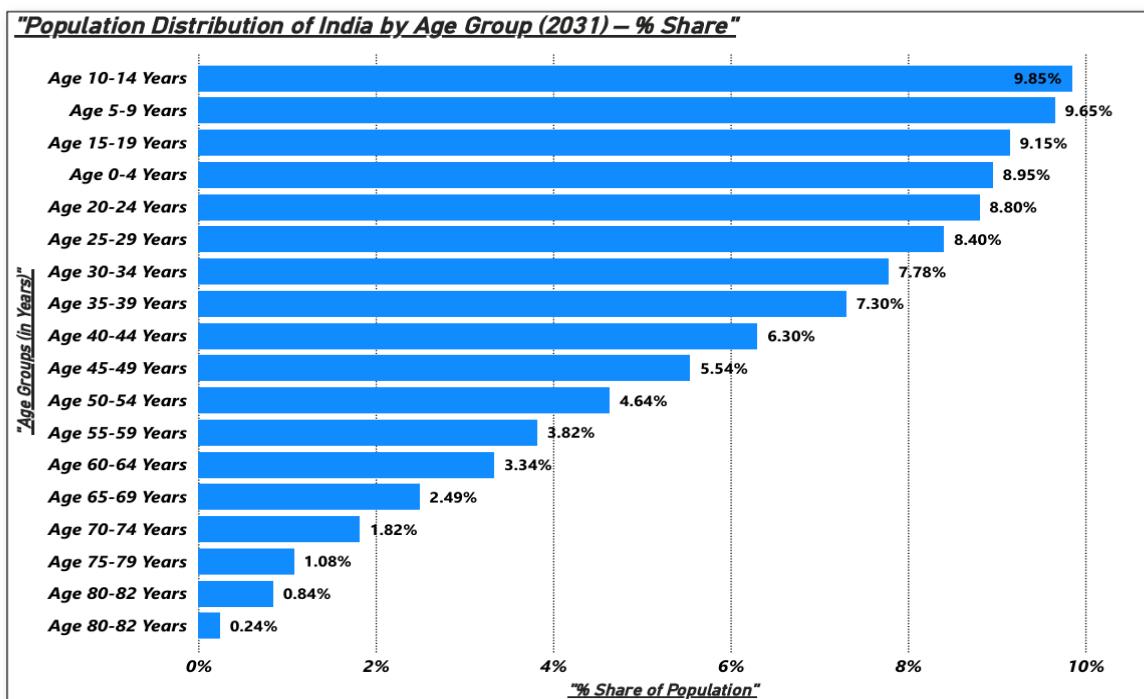
Dataset Overview:

- **Title:** All-India Gender and Age-group-wise Population Distribution
- **Source:** Ministry of Statistics and Programme Implementation (MoSPI)
- **Time Period:** 2001, 2011, 2021, 2031 (Decennial census data)
- **Data Format:** CSV, XLSX.



All-India Gender and
Age-Group-wise Popul

- **Variables:**
 - Year (Continuous Variable)
 - Age Groups (e.g., 0–4, 5–9 ... 80–82 years) (Categorical variable)
 - Gender (Male, Female, Person) (Categorical variable)
 - Population Share (% of total)



Power BI Visualization:



FIRST TASK.pbix

- **Title: Population Distribution of India by Age Group (2031) – % Share**
- *Categories range from 0–4 years to 80–82 years.*
- *Each bar represents the percentage share of each age group in the projected population for 2031.*

Interpretation & Insights:

Chart Interpretation:

- **Largest Age Group:**
The 20–24 years age group has the highest share of the population at 8.01%, indicating a strong young adult demographic entering or already in the workforce.
- **Youth Concentration:**
The groups 15–19, 10–14, 5–9, and 0–4 years all have population shares between 6–7.8%, showing India still has a very youthful population base.
- **Working-age Majority:**
Age groups from 25–54 years show high population shares (ranging from ~4.6% to 7.8%), reflecting a large, active working-age population. This suggests a potential for economic productivity and demographic dividend.
- **Middle-aged Decline:**
From 55–64 years, there's a noticeable decline in population share, going from 3.8% (55–59) down to 3.34% (60–64), showing fewer people in pre-retirement years.
- **Smaller Elderly Population:**
The 65+ population shrink significantly:
 - *65–69 years: 2.49%*
 - *70–74 years: 1.82%*
 - *75–79 years: 1.08%*
 - *80+ years: less than 1%**This indicates India is not yet an aging society, but a transition is beginning.*

Summary

India in 2031 is projected to have a youth-heavy and workforce-dominated population. The bulk of the population will be in the 20–39 years range, while the elderly make up a very small share, though gradually increasing. This structure supports strong economic growth potential—if education, employment, and health systems can meet demand.

