

Presented by Satyam Gautam

# World Population Analysis

Exploring Global Population Trends  
from 1980 to 2050



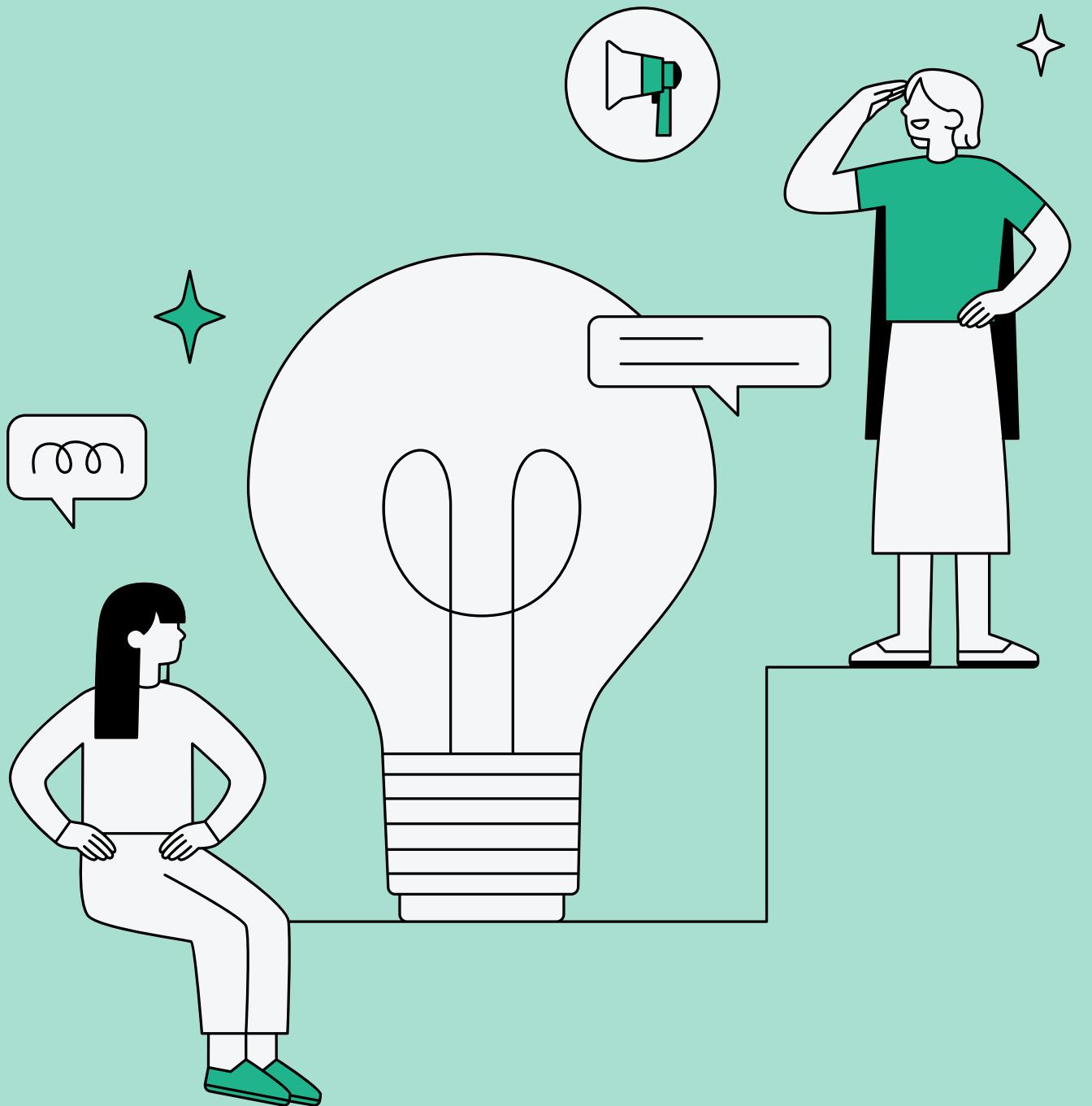
# Project Overview

Analyze and predict global population growth trends over time, from 1980 to 2050, using population census data.

## Tool used

Analysis : SQL

Visualization : Power Bi



# Techniques:

## 1. Data Cleaning and Preparation:

Checking for duplicates, renaming columns, ensuring data consistency

## 2. Data Aggregation:

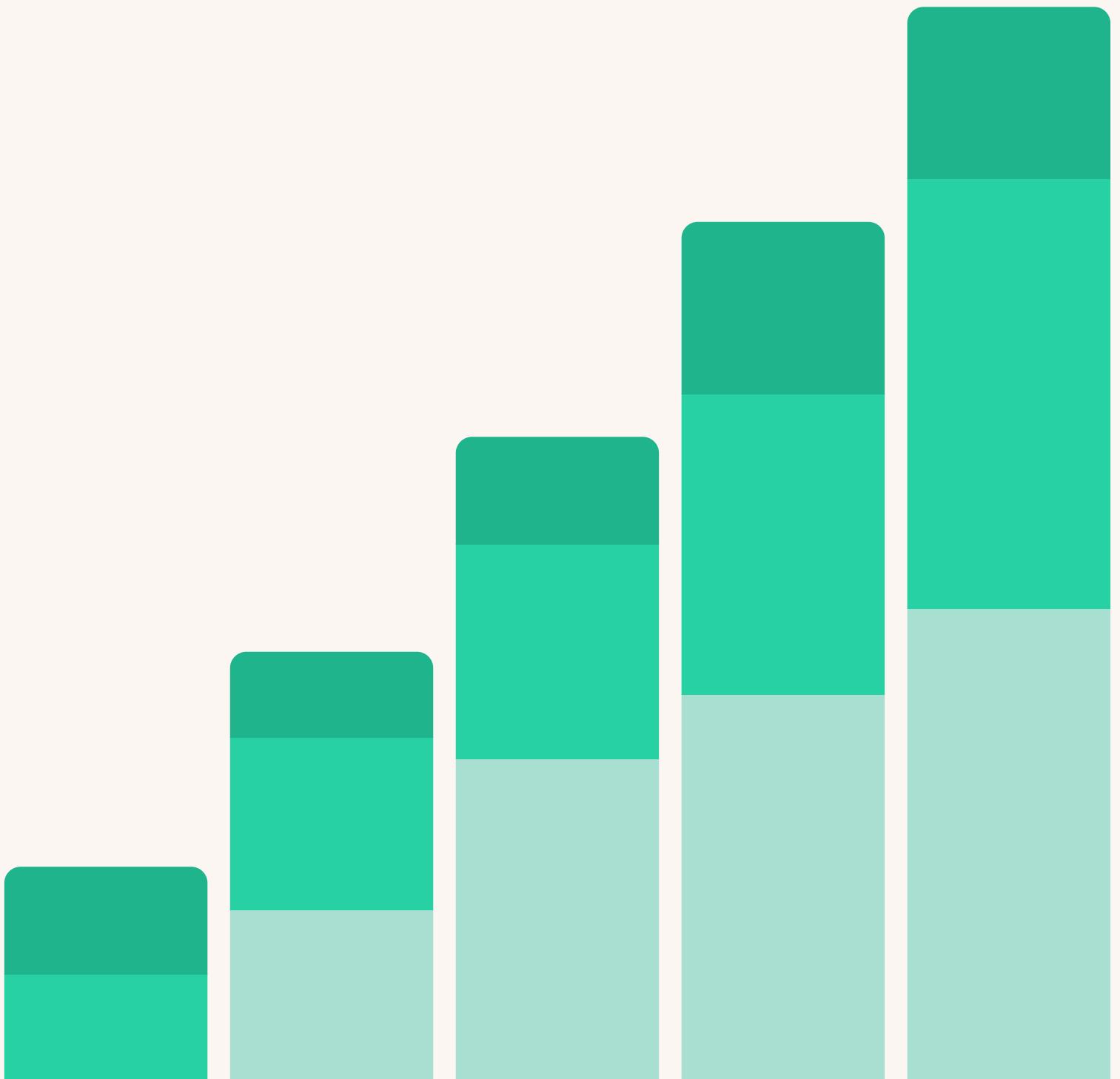
Summarizing data, grouping information for insights at a broader level.

## 3. Data Transformation:

Converting data into more usable formats.

## 4. Visualization

Using tools like Power BI to present data insights visually.



# Key SQL Techniques

## Top 3 and Top 10 Analysis

Identified the top populated countries and predicted future trends for 2030 and 2050.

## Population Growth Analysis

Used common table expressions (CTEs) to calculate the percentage increase or decrease

## World Population Estimation

Aggregated global population data for 1980, 2000, 2010, 2022, and predicted figures for 2030 and 2050.



# Overview of current trends



From 1980 to 2022, global population growth has been steady, with significant increases in regions like Asia and Africa. Countries like China, India, and the U.S. remain the most populous, though developing nations, particularly in Africa, are seeing rapid growth. In contrast, some developed nations, especially in Europe and Japan, face slower growth or population declines. By 2050, African nations are projected to grow the fastest, while some countries may experience shrinking populations. Population density is also rising, particularly in urban areas, and while growth continues, the overall rate has slowed since the 1980s due to lower birth rates in developed regions.

# Challenges (C) and proposed solutions (PS)

C

Rapid population growth in developing countries, especially in Africa, is straining resources, infrastructure, and healthcare systems. Meanwhile, developed nations like Japan and parts of Europe face declining populations, leading to labor shortages and potential economic stagnation.

PS

For growing populations, investing in infrastructure, healthcare, and sustainable resource management is crucial. For countries with declining populations, encouraging immigration and adopting policies that support families and automation can help address labor shortages.



# Comparison

## Current vs Previous Growth Rates

From 1980 to 2022, global population growth has slowed, with rapid increases in earlier years. While developing countries, particularly in Africa, continue to experience significant growth, many developed nations have seen slower growth or even declines

## Regional Shifts

In 1980, growth was more balanced globally, but by 2022, Africa and parts of Asia have become the primary contributors to population increases, while countries in Europe and Japan are facing population stagnation or decline

# External and internal challenges

**External Challenges:** Rapid population growth in developing regions, particularly in Africa, poses global issues such as resource shortages, increased demand for infrastructure, and environmental strain. Global migration and urbanization trends also lead to overcrowding in cities, exacerbating housing and employment challenges.

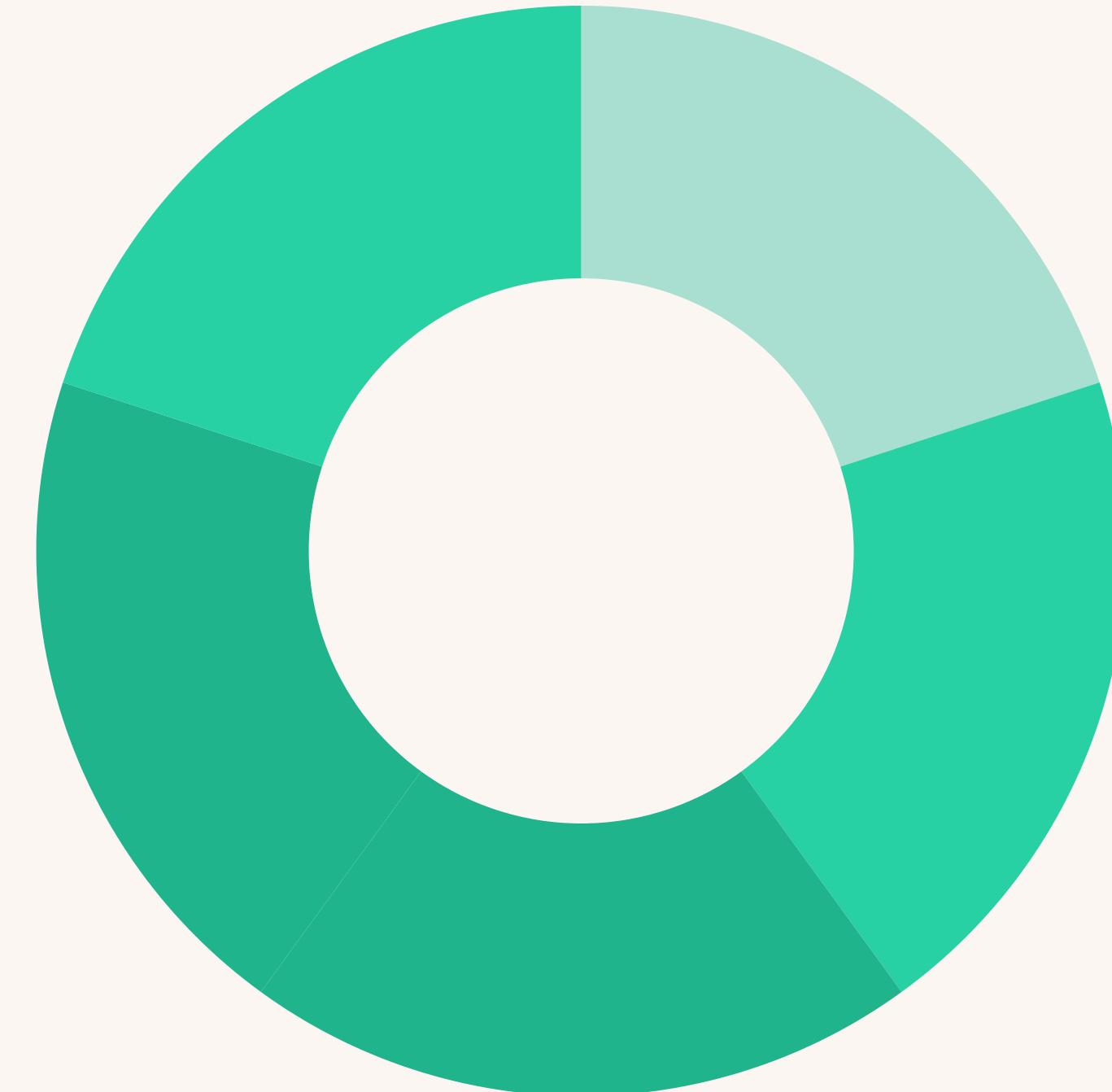
**Internal Challenges:** Within countries facing population decline, such as Japan and parts of Europe, aging populations create labor shortages, increased healthcare costs, and economic stagnation. Additionally, nations with rapid population growth struggle to provide adequate public services and maintain sustainable development amidst internal resource limitations.



# Economic implications of current trends

The current population trends have significant economic implications. In rapidly growing regions like Africa and Asia, there is increased pressure on resources, infrastructure, and job markets, which could lead to higher unemployment and strained public services. However, these regions also present opportunities for economic expansion due to their growing labor force and consumer markets.

Conversely, developed nations facing population decline, such as Japan and parts of Europe, are grappling with labor shortages, reduced consumer demand, and rising healthcare costs. This could result in slower economic growth, higher taxes, and a greater reliance on automation and immigration to sustain their economies.



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# Thank you very much!

