We have used the dataset from The World Bank website:

https://databank.worldbank.org/source/africa-development-indicators

The dataset is a comprehensive compilation of economic, demographic, and social indicators for the African countries. It covers a time range from 1997 to 2011, providing a 15-year snapshot of these nations' development and characteristics. The dataset includes a wide array of variables, such as:

1. **Population Data:** Information on the total population, birth and death rates, and net migration figures.
2. **Economic Indicators:** Gross Domestic Product (GDP) statistics, both total and per capita, which provide insights into the economic performance of these countries. Also included are details on industries, agriculture, and service sectors.
3. **Labor Force Data:** Data related to employment and unemployment rates, labor force participation, and sector-wise employment, allowing for a deeper understanding of labor dynamics.
4. **Demographic Metrics:** Age dependency ratios and fertility rates, which are crucial for studying population dynamics.
5. **Electricity Production:** Information about electricity generation, a vital indicator for assessing infrastructure development.
6. **Agricultural Data:** Crop production, land use, and other agriculture-related statistics play a significant role in the economies of these countries.
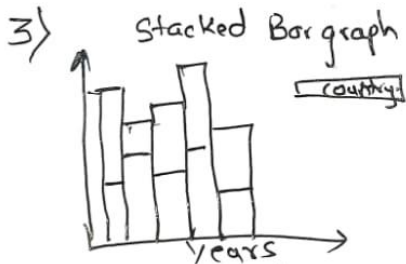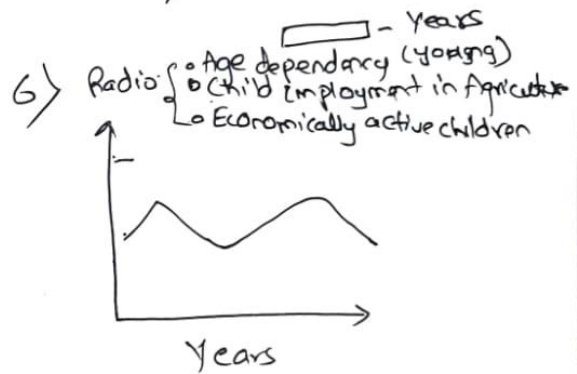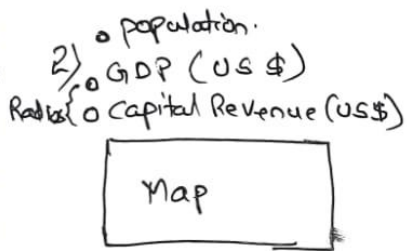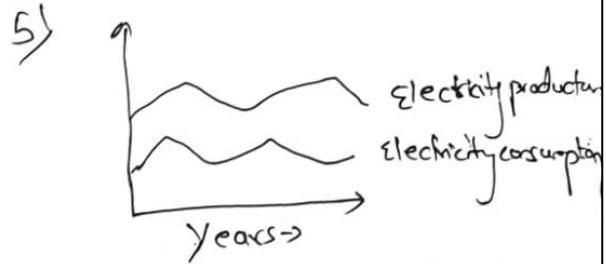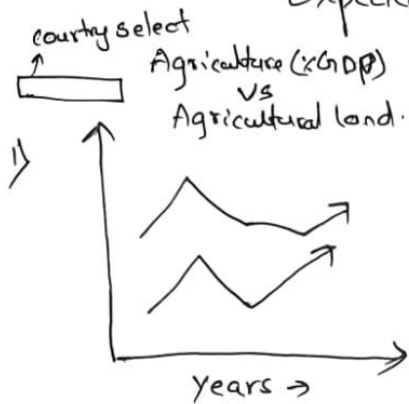
Purpose:
The primary purpose of visualizing this dataset is to gain a deeper understanding of how these countries evolved over time in various economic, demographic, and social aspects. Some of the key questions and objectives for visualization might include:

1. **Economic Growth Analysis:** Visualizing GDP trends can help in assessing the economic growth patterns of these nations. Are there periods of significant growth or stagnation, and what factors correlate with these trends?
2. **Population Dynamics:** By examining population data and age dependency ratios, one can explore changes in demographics, including potential shifts in the age structure of the population.
3. **Labor Market Insights:** Analyzing labor force statistics and employment trends can reveal how these countries have coped with workforce challenges and evolving job markets.
4. **Agricultural Sustainability:** Understanding the agricultural sector's performance is critical for these countries. Visualizations can provide insights into crop production and land use changes.
5. **Infrastructure Development:** Electricity production data can indicate improvements in infrastructure, which is vital for economic growth.
6. **Indicators and Policy Implications:** Identifying correlations between different indicators can inform policymakers and researchers about potential cause-and-effect relationships, helping in the formulation of more effective policies and strategies.

In summary, the dataset presents an opportunity to explore a wide array of socioeconomic aspects in African countries over a 15-year span. The visualizations and analyses can shed light on the challenges, opportunities, and developmental trajectories of these nations, contributing to informed decision-making and policy development.

Expected Visualization designs

country select

1)

Agriculture (%GDP)
vs
Agricultural land.

years →

2)
Radio
- population.
- GDP (US $)
- capital Revenue (US$)

Map

3)

Stacked Bar graph

[country]

Years

Stacked contributing family members
females vs males.

4)

━━━●━━━ Years

population, total
population, male
population, female

5)

Electricity production
Electricity consumption

Years →

6) Radio

[ ] - Years
- Age dependency (young)
- Child employment in Agriculture
- Economically active children

Years