**Essential Tools for Scientific Computing**

**Module – II**

**Class Project**

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Title: **“Understanding the global population trends”**

Summary:

When working with population data, we can create various types of plots to visualize different aspects of population trends.

1. Population Over Time - Line Plot: Plot a line chart to show how the population has changed over time. This is useful for tracking population growth or decline.
2. Population Distribution - Histogram: Plot a histogram to visualize how the population is distributed across different population ranges. This can reveal population concentration patterns.
3. Population by Region - Bar or Stacked Bar Plot: Create a bar chart to compare the populations of different regions or countries.
4. Population Growth Rate - Bar Plot or Line Plot: Plot a bar chart or line chart to visualize the annual or periodic population growth rate. This can help identify periods of rapid or slow population growth.
5. Urban vs. Rural Population - Grouped Bar Plot: Compare the population counts between urban and rural areas using a grouped bar plot.

Results:

Problems encountered: