**Task: Data Analysis Exercise - Exploring Contemporary Climate Trends**

Objective: Analyse climate datasets to understand current climate trends and patterns.

Instructions:

1. Choose a climate dataset (temperature trends, sea level rise, extreme weather events, or greenhouse gas emissions) from reputable sources.
2. Analyse the dataset to:
* Identify trends or changes over a specific period.
* Create visual representations (graphs, charts) to illustrate findings.
1. Prepare a summary report or presentation:
* Include observations, patterns, or trends noticed in the data.
* Discuss the significance of findings for understanding climate change.
1. Submit your analysis report or presentation along with visualizations.

**EXAMPLE SCIENTIFIC DATASET SOURCE**

**Temperature**

1. **NASA Goddard Institute for Space Studies (GISS):**
* Dataset: GISTEMP Surface Temperature Analysis (GISTEMP)
* https://data.giss.nasa.gov/gistemp/
1. **National Centers for Environmental Information (NCEI) - NOAA:**
* Dataset: Global Historical Climatology Network - Monthly (GHCN-M) or Global Surface Summary of the Day (GSOD)
* https://www.ncdc.noaa.gov/cdo-web/
1. **UK Met Office Hadley Centre:**
* Dataset: HadCRUT (Hadley Centre Climatic Research Unit Temperature) dataset
* https://www.metoffice.gov.uk/hadobs/
1. **Berkeley Earth:**
* Dataset: Berkeley Earth Surface Temperature (BEST)
* http://berkeleyearth.org/data/

**Sea level rise:**

1. Permanent Service for Mean Sea Level (PSMSL):
* Dataset: Global and regional sea level data from tide gauges
* https://www.psmsl.org/data/obtaining/
1. University of Colorado Boulder - Sea Level Research Group:
* Dataset: Global Mean Sea Level Time Series
* https://sealevel.colorado.edu/data
1. National Centers for Environmental Information (NCEI) - NOAA:
* Dataset: Global and regional sea level trends and data
* https://www.ngdc.noaa.gov/hazard/sea-level-rise-data.html