Readme  
Here's a sample README.txt template tailored to your \*climate change survey data science project using machine learning\*, with the required sections:

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README.txt

Climate Change Survey Data Analysis with Machine Learning

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1. STEP-BY-STEP INSTRUCTIONS

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To run the analysis from start to finish, follow these steps:

1.1. Download and extract the ZIP archive containing this project.

1.2. Ensure you have Python 3.8 or above installed (preferably via Anaconda or a virtual environment).

1.3. Open the provided Google Colab notebook (link inside the file: `Colab\_Link.txt`) \*\*OR\*\* run `main\_analysis.ipynb` locally.

1.4. (Optional) Install required Python libraries using `pip install -r requirements.txt`.

1.5. Execute the notebook cells in order. The notebook handles:

- Data loading and cleaning

- Exploratory data analysis (EDA)

- Correlation analysis

- Regression modeling (linear & logistic)

- Model evaluation

- Visualization of results

2. DEPENDENCIES

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This project depends on the following Python libraries:

- pandas

- numpy

- matplotlib

- seaborn

- scikit-learn

- statsmodels

- scipy

- notebook or Jupyter Lab (if running locally)

Install all dependencies using the command:

bash

pip install -r requirements.txt

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3. EXPECTED OUTPUTS

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Running the analysis will generate:

\* Summary statistics and correlation matrices

\* Linear regression results (e.g., prediction of climate concern score)

\* Logistic regression output (e.g., predicting support for climate policy)

\* Visualizations (e.g., heatmaps, scatter plots, regression lines)

\* Model evaluation metrics such as R², accuracy, precision/recall

\* Interpretation and commentary on the findings (in notebook markdown cells)

4. DOCUMENTATION OF FILES

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Here's what each file in the project does:

\* `README.txt` – This file; explains how to use the project.

\* `survey\_data.csv` – The cleaned dataset used for analysis.

\* `main\_analysis.ipynb` – Jupyter/Colab notebook with all code and explanations.

\* `requirements.txt` – List of Python packages required.

\* `Colab\_Link.txt` – Direct link to open the notebook in Google Colab.

\* `models/` (folder, optional) – If included, contains saved ML models.

\* `figures/` (folder, optional) – Stores generated plots and visualizations.

\* `notes.txt` (optional) – Any relevant notes or assumptions made during the project.

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Project by \[Your Name / Team], MSc Georesources and Geoenergy

\[University Name], \[Course or Instructor Name]

Date: \[Insert Date]

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