Vision and Mission

You have been hired by the Food and Agriculture Organization (FAO) of the United Nations to create an interactive visualization for their project “Climate Change Impact on Global Agriculture”. The goal of this project is to raise awareness about the impact of climate change on agriculture and promote sustainable farming practices. FAO will provide access to climate and agricultural data sources on a worldwide basis.

The impact of climate change on agriculture is a critical issue that affects food security, economic stability, and the livelihoods of millions of people worldwide. By analyzing historical data and presenting it in an accessible format, the project seeks to inform and engage a wide audience, including policymakers, farmers, researchers, and the general public.

Agriculture is highly sensitive to changes in climate. Variations in temperature and precipitation can significantly influence crop growth, yield quality, and overall productivity. This project will focus on identifying how these climatic factors have changed over time and how these changes have impacted agricultural output. There are considerable regional differences, i.e., areas that have been disproportionately affected by climate change and others, that have adapted successfully.

This visualization will serve not only as an educational resource but also as a decision-support system, helping stakeholders develop strategies to mitigate the adverse effects of climate change on agriculture.

Furthermore, the project will emphasize the importance of sustainable farming practices. By understanding the historical impact of climate change, users can better appreciate the need for adopting practices that enhance resilience and sustainability in agriculture. The ultimate goal is to drive informed action that promotes food security and environmental stewardship in the face of a changing climate.

An engaging and informative interactive visualization shall facilitate accurate and comprehensive data analysis, provide an engaging and informative interactive visualization. It is expected to generate positive user feedback and high engagement with the visualization and provoke clear insights and actionable recommendations for promoting sustainable farming practices.

Exercises

- **Answer the questions in teams of 3 to 4 students**
- **Make sure you time-box each exercise so that you do not run out of time!**
- **Do not use AI for problems 1 through 4.**
- **Feel free to use AI for problem 5.**

1) **Motivating Curiosity**
   Identify the motivating curiosity of this project. Write it down!

2) **Intended Effect**
   Identify the intended effect of this project. Write it down!

3) **Function and Tone**
   Decide on the Function and the Tone for this project. Write them down!

4) **Big Idea**
   Condense your 3-minute story into a Big Idea

5) **3-minute Story**
   ChatGPT came up with the 3-minute story (best result after multiple interactions) on the next page.

   Discuss this 3-minute story:
   - What is good about it?
   - What needs to be improved?
   - Write a better 3-minute story (feel free to use a LLM, if you want)!

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3-minute story generated by ChatGPT:

The Climate Connection: A Story of Global Agriculture

In a world not too different from our own, farmers everywhere were facing a silent enemy—climate change. Amina, a farmer in Kenya, saw her crops wither under the erratic weather, while John, a corn farmer in Iowa, struggled with shifting seasons and pests. Their stories were part of a larger crisis impacting agriculture globally.

To address this, the Food and Agriculture Organization (FAO) of the United Nations launched "Climate Change Impact on Global Agriculture," an interactive visualization project. This tool combined global data on climate patterns and agricultural yields, revealing the profound impact of climate change on farming.

Users could explore how temperature shifts and changing precipitation influenced crop growth and productivity. The visualization highlighted regions most affected by climate change and those that had adapted successfully, offering valuable insights and comparisons.

Amina and John's experiences became part of a global narrative. The project showcased sustainable farming practices—like crop diversification and water conservation—that offered hope and resilience. It wasn't just a data tool; it was an educational resource and decision-support system for policymakers, researchers, and farmers.

The visualization engaged users, making the data come alive and fostering a deeper understanding of the urgent need for sustainable agriculture. It sparked conversations in classrooms, government offices, and communities, raising awareness and driving informed action.

Ultimately, the FAO's project told a powerful story of connection and resilience. It demonstrated that while climate change posed significant challenges, adaptation and sustainable practices could secure a better future for global agriculture and the generations to come.

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