

Team Details:

- a. Team name: AstroNex
- b. Team leader name: Ahamad Ali
- **c. Problem Statement:** How to engage players in learning about climate change and environmental issues through a game, utilizing GLOBE Program protocols.





Title: Globe Protocol Games

Description: GLOBE Protocol Games is a fun and educational adventure where players explore real-life environmental problems like growing cities, polluted water, and droughts. By following simple GLOBE Program guidelines, players can study their local or global environment, collect information, and make important choices that affect the climate and the world around them. The game teaches scientific ideas in an easy and engaging way, helping players understand how their actions can make a difference in protecting the Earth. It's a great way to learn and have fun while tackling environmental challenges.





Opportunities:

Uniqueness: Unlike other climate-based games, this focuses on local investigation using GLOBE protocols.

Problem-Solving: Helps players understand their impact on climate while learning about global environmental topics.

USP: Combines real-world data collection with interactive gaming to educate and raise awareness.





Features:

- Educational Gameplay: Designed to teach players about the interconnectedness of environmental factors and the importance of sustainable decision-making.
- Endgame Insights: Detailed feedback at the end of the game based on the player's performance, including specific suggestions on the weakest environmental parameter.
- Effort Management: Players must manage finite resources (effort points) while balancing environmental sustainability.
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Technologies:

Frameworks: Vaite

Styling: CSS, Bootstrap

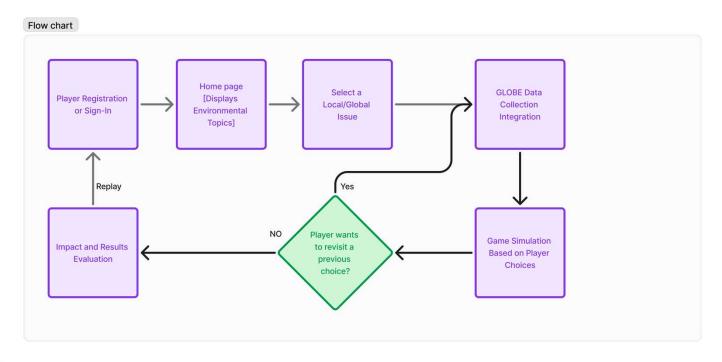
Platform: Web

Deployment: Vercel



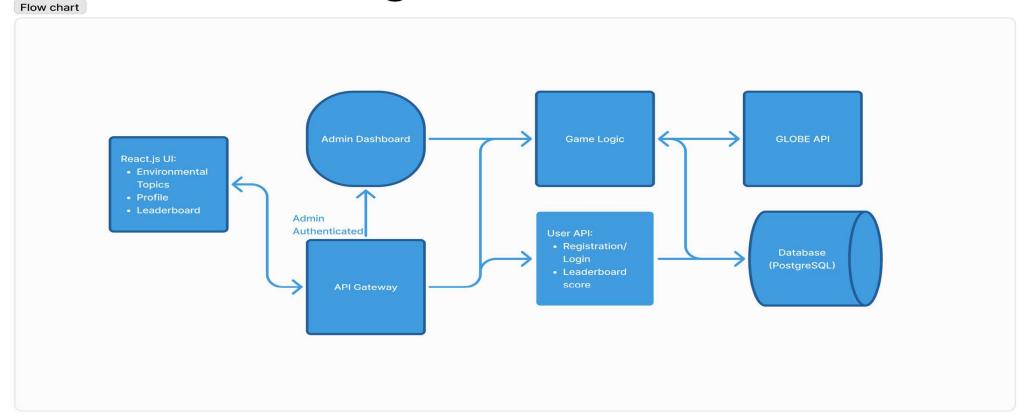
Process Flow Diagram:

Overview of Game Flow:





Architecture Diagram:







Prototype Performance report/Benchmarking

- An educational game inspired by GLOBE protocols to engage players in real-world environmental challenges such as urbanization, water pollution, Air Pollution and Land Pollution. The game aims to raise awareness while providing an interactive learning experience..
- Improvements: Identify areas for enhancement, such as better feature selection and analysis of choices using Machine Learning and Cloud Computing.





Future Enhancements:

- Expansion to cover more global environmental issues.
- Adding multi-player features for collaborative learning.
- Deeper integration with GLOBE protocols for enhanced data use.
- Database Integration: Implement a database to store and manage user data, performance metrics, and project records efficiently.
- Leaderboard System: Introduce a dynamic leaderboard to rank users based on their performance and engagement.
- Leveraging Machine Learning and Cloud Analytics to provide a more efficient learning experience.
- Using Generative AI to generate real time scenarios based on current affairs.





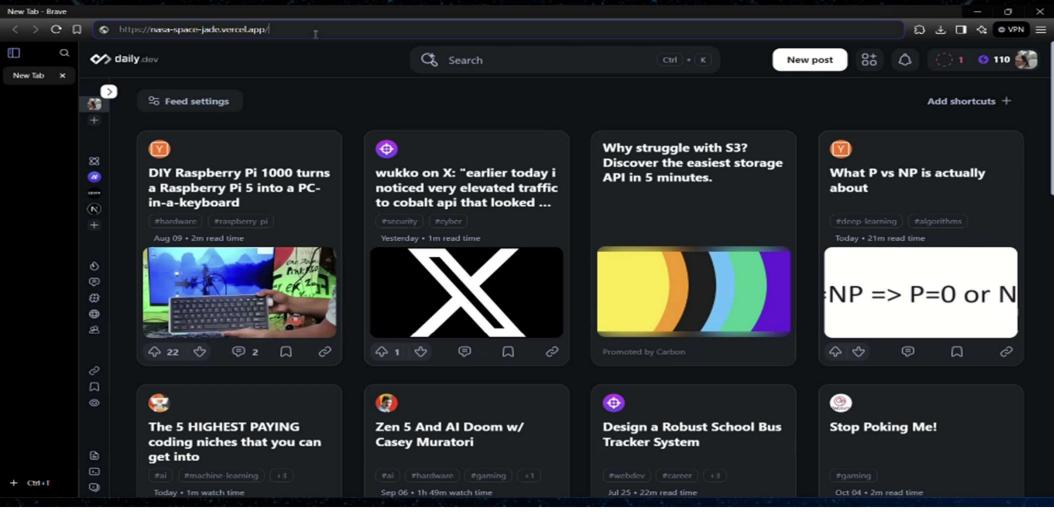
Provide links to your:

- 1. GitHub Public Repository:- <u>2213393AH/nasa-spaceapp-2024-submission (github.com)</u>
- 2. Final Product Link:- https://nasa-space-jade.vercel.app/



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Thank You

