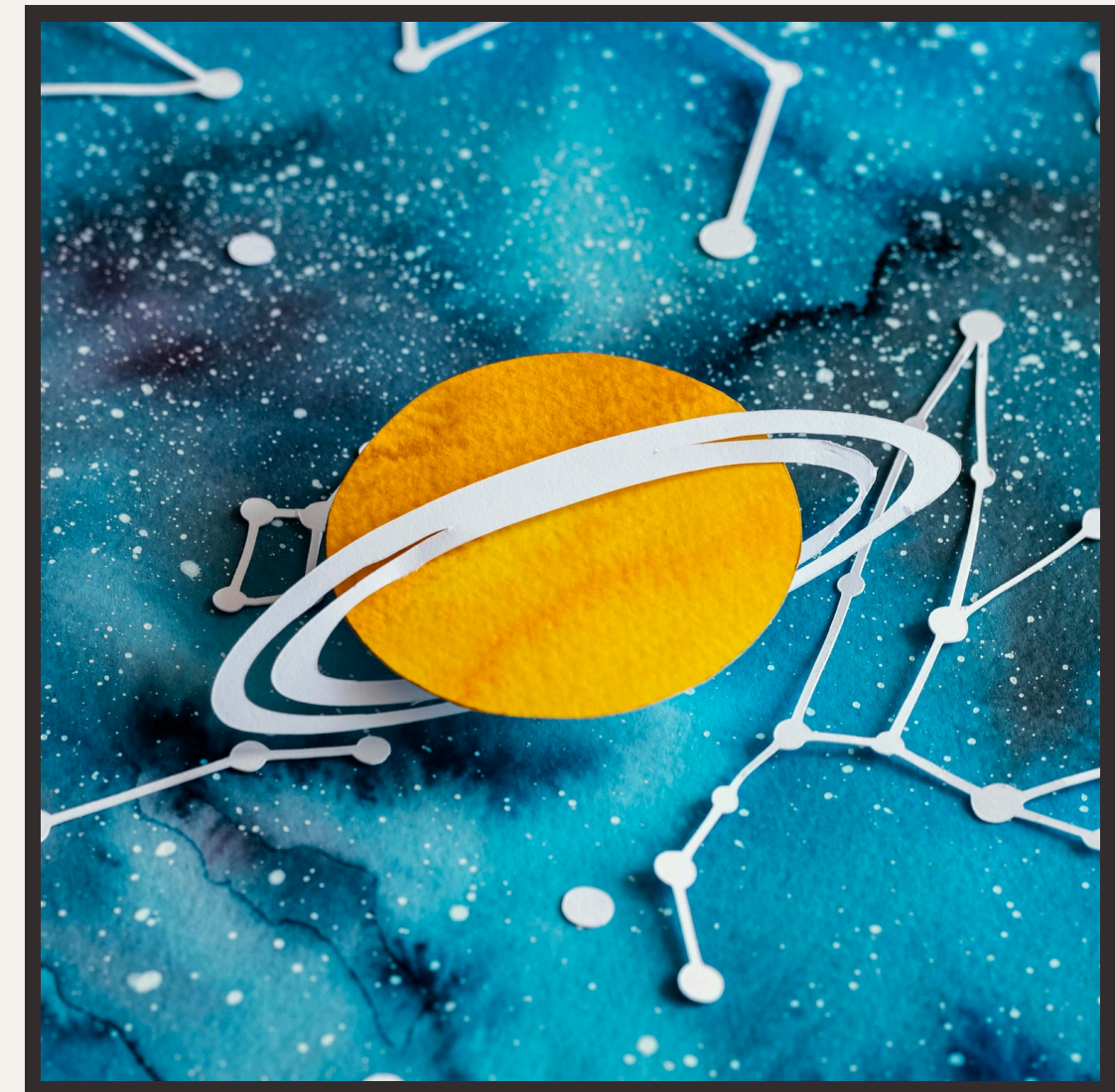# Developing an Orrery Web Application for Visualizing Near-Earth Objects: Insights from the NASA Space App Challenge

This presentation covers the **development** of an **Orrery web application** aimed at visualizing **Near-Earth Objects (NEOs)**. Insights gained from the **NASA Space App Challenge** will be discussed, showcasing the **importance** of such tools in **astronomy** and **public engagement**.

Understanding Near-Earth Objects

Near-Earth Objects are **asteroids** and **comets** that come within **1.3 astronomical units** of Earth. Their study is crucial for **planetary defense** and understanding the **solar system's dynamics**. This application aims to provide a **visual representation** of their trajectories and potential impacts.

Key Features of the Application

The Orrery web application includes features such as **real-time tracking**, **interactive visuals**, and **data integration** from NASA databases. Users can explore NEOs' **orbits**, sizes, and **potential hazards**, enhancing their understanding of these celestial bodies.

Technologies Used

This project leverages modern web technologies such as **JavaScript**, **D3.js** for data visualization, and **API integration** with NASA's databases. These technologies enable the creation of a **responsive**, **user-friendly** interface for optimal **user experience**.

Insights from the Challenge

Participating in the **NASA Space App Challenge** provided invaluable insights into **collaboration**, **innovation**, and the importance of **community engagement**. Feedback from other participants helped refine the application and align it with user needs and expectations.

Conclusion and Future Work

In conclusion, the Orrery web application serves as a vital tool for **educating** the public about Near-Earth Objects. Future work will focus on enhancing **data accuracy**, expanding features, and promoting **public accessibility** to foster greater interest in **space exploration**.

Thanks!

Do you have any questions?
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