The Orrery Web App

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Introduction

- The Orrery Web App is a dynamic 3D visualizer of the solar system designed to track planets and Near-Earth Objects (NEOs). It showcases real-time data, focusing on planetary distances, sizes, and speeds.

- In PPT :

  - Tech Stack
  - Key Features
  - Deploy in Production

Tech Stack

Front-End: JavaScript (Three.js or similar for 3D rendering), HTML, CSS.

Back-End: Node.js (for API calls to NASA's NEO API).

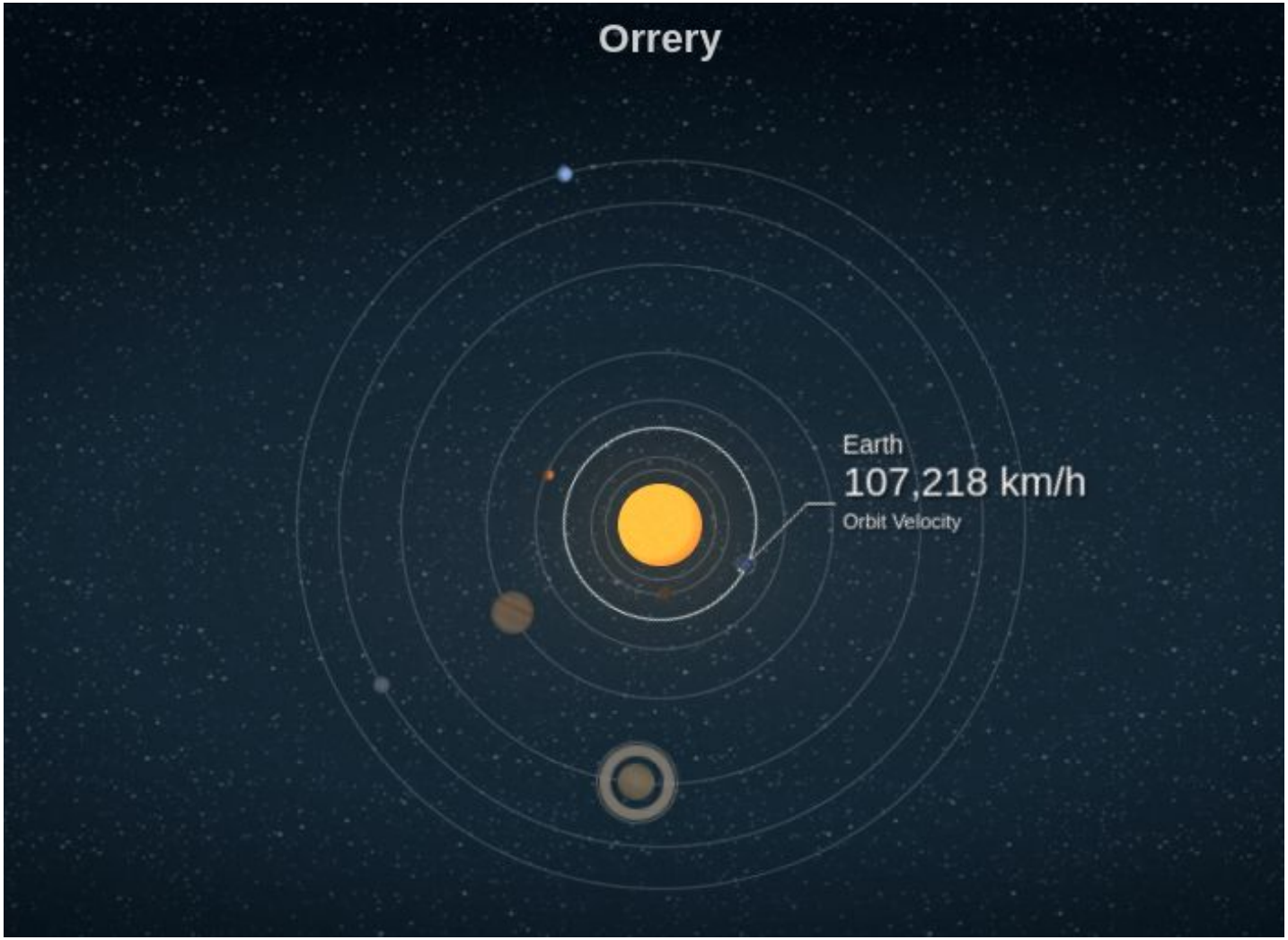
Data Source: NASA NEO API, NASA Planetary Data System (PDS).

AI Integration: Machine learning model predicts future positions of NEOs based on orbital data.

Key Features

- 3D visualization of planets and NEOs.
- Interactive features allowing users to track planetary positions and distances.
- Real-time orbits with adjustable speeds.
- Zoom and rotation capabilities for exploring different parts of the solar system.

Project Demo



Deploy & Production

Comprehensive Documentation: Includes setup instructions, usage guide, and API references.

Codebase: Structured and modular code with comments for easy navigation.

Issue Tracking: A system for reporting bugs and suggesting enhancements.

Continuous Integration: Automated tests and deployment via GitHub Actions for consistent updates.

Conclusion

In conclusion,Orrery Web App offers an interactive, educational platform to visualize planetary orbits and track Near-Earth Objects using real-time data from space agencies like speed, distance and size.With a well-documented GitHub repository and continuous integration, the project is designed for easy setup, collaboration, and further development.

Thanks!