Project Proposal: “DiscoverSpace”

Overview

DiscoverSpace is a web platform designed to make space exploration as captivating and accessible as the astronomy magazines I loved as a kid. It bridges the gap between cutting-edge NASA data and public curiosity by offering real-time cosmic imagery, interactive learning tools, and an educational Solar System adventure game. Driven by my belief that scientific knowledge should be joyful, visual, and freely available, this project transforms complex astrophysics into playful discovery—inspiring wonder about our universe through technology.

Target Audience

The target Audience is people who are interested in science, whether they are adults or children, or parents who want to learn about space with their children in a familiar setting.

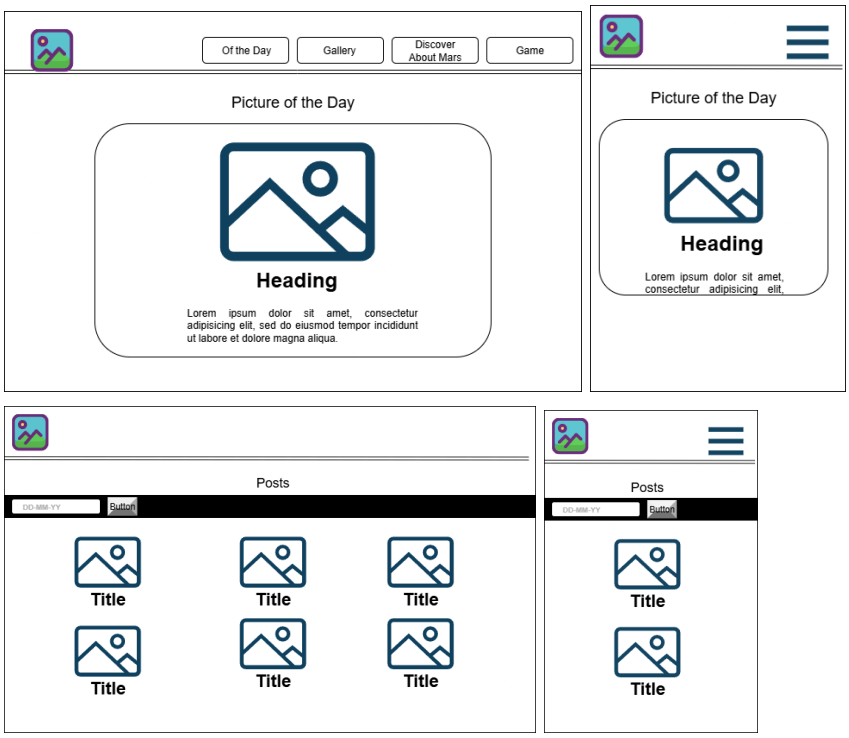
Major Functions

1. Astronomy Picture of the Day
    - Auto-display NASA’s daily cosmic image
    - Optional: Archive search by date
2. Interactive Gallery
    - Browse Nasa images by categories(Nebulae, galaxies, eclipses, etc.) and data range.
3. Planet Spotlight
    - “Random planet of the day” with image/key facts.
    - User Favorites: Save/delete planets to a “Liked Planets” list. View saved planets with descriptions.
4. Live Mars Weather
    - Real-time data(temperature, wind, season) from NASA’s API
5. Mars Gallery
    - High-res photos.
6. “Solar Explorer” Mini-Game.
    - 2D map of the solar System for virtual travel.
    - Discover planets + answer quiz questions to progress.
    - Unlock fun facts.
7. Bookmark System

- Save/delete favorite planets or images.

8. Search & Filters
    - Cross-category search(date, type, mission).

Wireframes



External Data

- **APOD API**: To connect with the Astronomy Pictures of the Day from NASA with their descriptions.
- **InSight API:** to get Mars Weather and current information.

Data Storage

- **Local Storage:** To store the saved planets of the user.

Module List

- **Planets JSON:** The data of all the planets and their information.
- **SavedPlanets JSON:** The data of all the saved planets by the user and their information.

- Small.css: The styles of the mobile mode.
- Large.css: The Styles for tablets and desktop.
- game.js: The process of the game.
- gallery.js: Show the gallery of the posts.

Graphic Identity

- **Color Scheme:** https://colorhunt.co/palette/f79b722a4759dddddeeeeee
- **Typography:** Tittles/ Headlines → Orbitron. Cooperative Text / Descriptions → Montserrat. Quotes/ Buttons → Space Mono
- **Icon:**

Timeline(Weeks 5-7)

- Week 5:
  - Complete HTML and CSS(Mobile) of “Picture of the day” and “Gallery of posts”.
  - Javascript to implement Nasa’s Apis.
  - HTML and CSS of discover Mars, js API for mars.

- Week 6:
  - Section of for the planets, saved planets with their css and js.
  - Javascript for generate random planets per day.
  - First part of the game(maps, first quizes)
- Week 7:
  - Finish the game functionalities(points and levels) and its css style.

Link to Trello: https://trello.com/b/eOEzbnvd/discoverspace

Chalenges

My Challenges will be creating a friendly game for children with various types of questions and developing mechanics to ensure a successful game without bugs.