ANGULAR PROJECT PRESENTATION

NASA SPACE NEWS

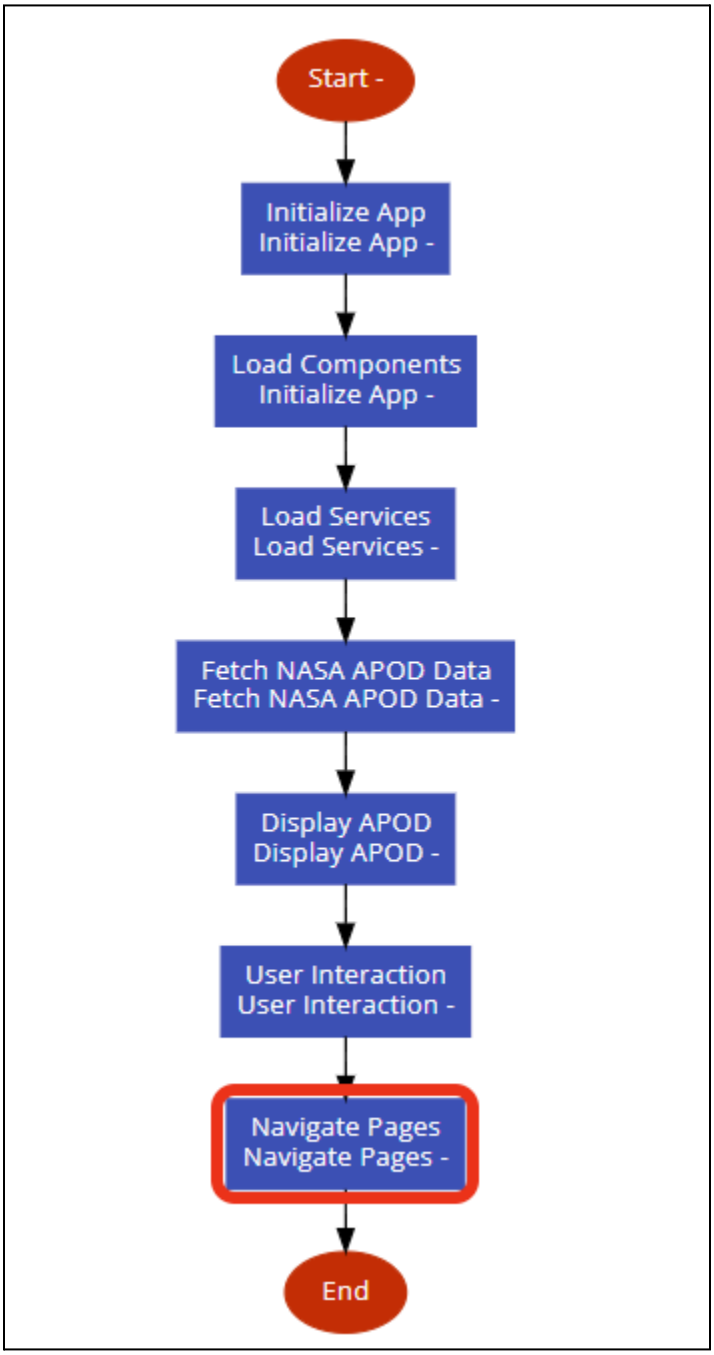
Description

NASA Space News is an Angular-based web application that provides users with the **Astronomy Picture of the Day (APOD)**, fetched directly from NASA's public API. The application displays stunning space images, along with detailed descriptions, making it an educational and visually engaging platform for space enthusiasts.

Features

- ☑ **Fetch NASA's APOD** – Retrieves daily space images and information using the NASA API.
- ☑ **Dynamic UI** – Displays images, descriptions, and additional details.
- ☑ **Routing & Navigation** – Users can navigate through different sections like archives, about page, and contact.
- ☑ **User Interaction** – Users can explore past APOD entries and learn more about space discoveries.
- ☑ **Modular Structure** – Built using Angular's best practices with components, services, and routing for scalability.

WorkFlow



Workflow Overview

1. **App Initialization** → Loads components and services.

2. **Fetch NASA APOD** → Calls the API to get the latest image and description.
3. **Display APOD** → Shows the image, title, and details.
4. **User Interaction** → Users can navigate between pages or explore past images.

Concepts Used

- ☐ **Modules (`app.module.ts`)**
    - Defines the root module of the application.
    - Imports required Angular modules and declares components.
- ☐ **Routing (`app-routing.module.ts`)**
    - Manages navigation between pages using Angular Router.
    - Defines route configurations for different components like `home`, `latest-apod`, etc.
- ☐ **Components (`pages/` and `common/`)**
    - Each page (e.g., `home`, `latest-apod`, `about`) is a component.
    - Components handle UI rendering and logic.
- ☐ **Services (`services/`)**
    - Likely contains services to fetch data from NASA's API.
    - Implements `HttpClient` to make API calls.
- ☐ **Guards (`guards/auth.guard.ts`)**
    - Implements **route guards** to protect certain routes (e.g., authentication).
    - Ensures users have the right access before navigating to a page.
- ☐ **Pipes (`pipes/titlecase.pipe.ts`)**

- Custom Angular pipes for formatting text (e.g., TitleCase conversion).
- Helps transform data before displaying it in the UI.

☐ **Models (`model/apod.ts`)**

- Defines TypeScript interfaces for handling API data.
- Helps in **strong typing** for structured data.

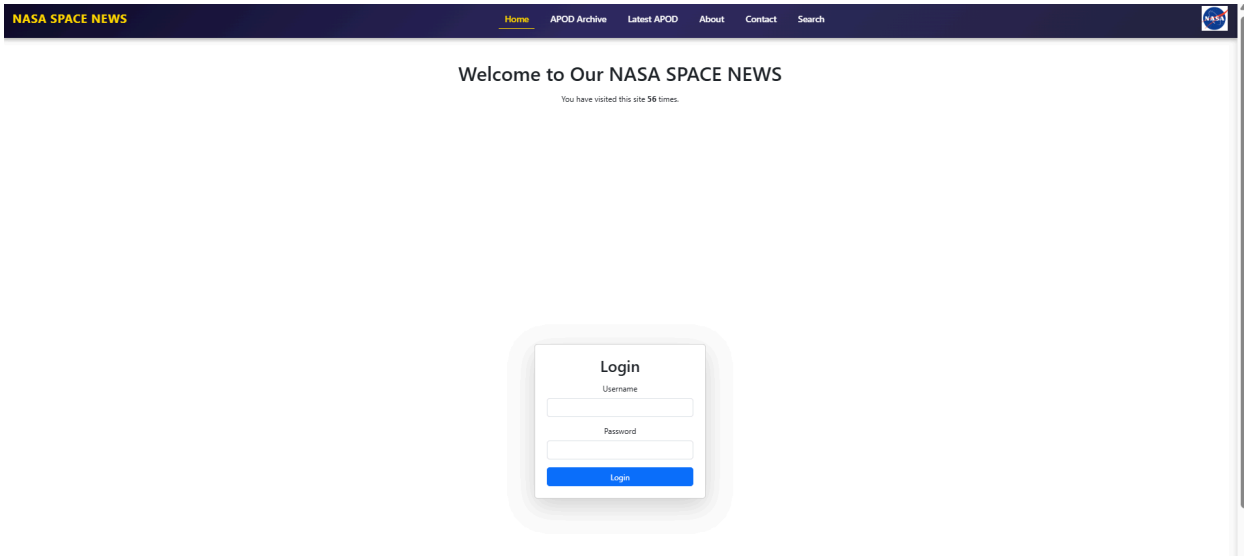
List of Pages

- Home
- Login
- Latest APOD
- APOD Archive
- About Us
- Contact Us
- Search

Home

- **Built the Layout with Angular & Bootstrap**
  Used Angular components for the navbar, homepage, and login form, styled with Bootstrap for responsiveness.

- **Added Routing & Dynamic Content**
  Configured Angular routing for navigation and used a service to display the visit count dynamically.



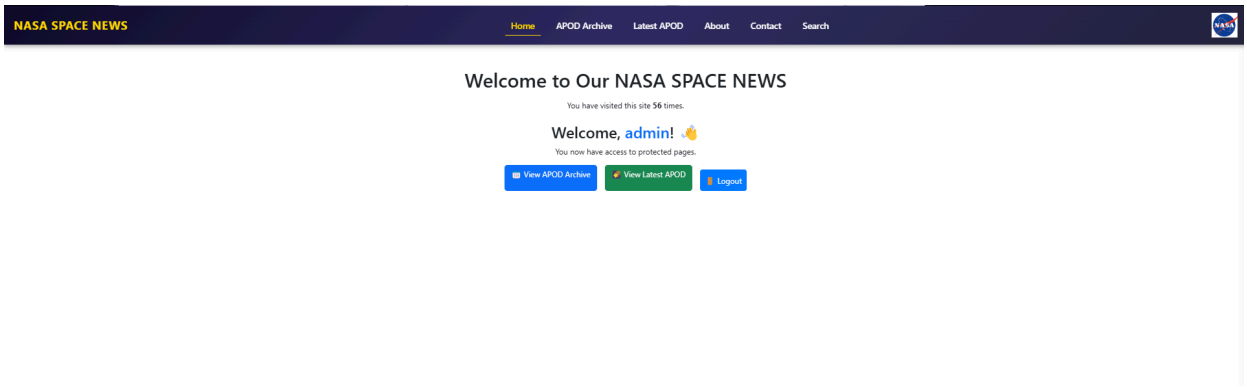
- Login

  By Default ,

  Login User Name : admin

  Password : admin

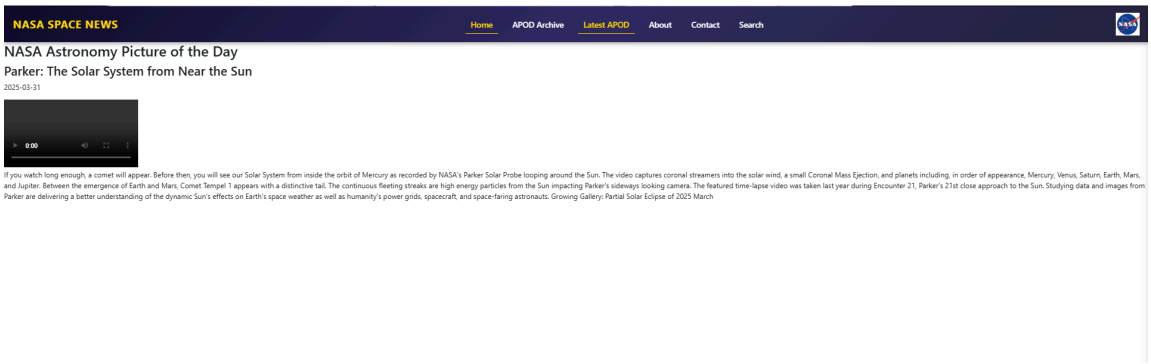
  Only After Login , we can be able to access the Latest APOD , APOD Archive



- Latest APOD
  - **Fetches the Latest APOD from NASA API**
    Retrieves the most recent Astronomy Picture of the Day (APOD) with title,

image, and description using NASA's API.

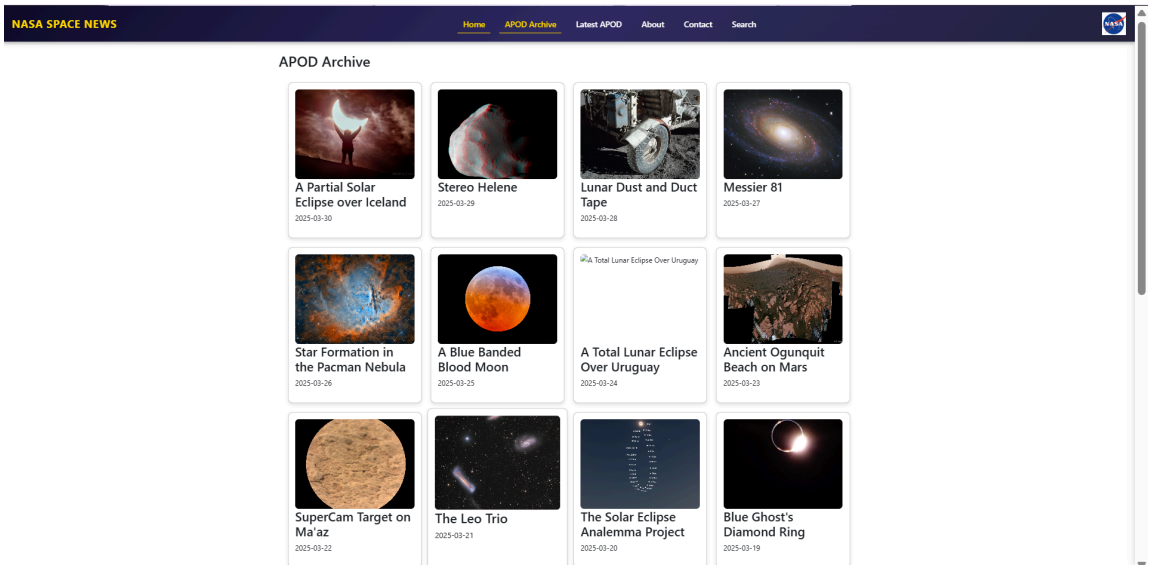
- **Displays APOD**
  Shows the image/video, title, and explanation in a well-designed card layout for easy viewing.



- APOD Archive
  - **Past APODs**

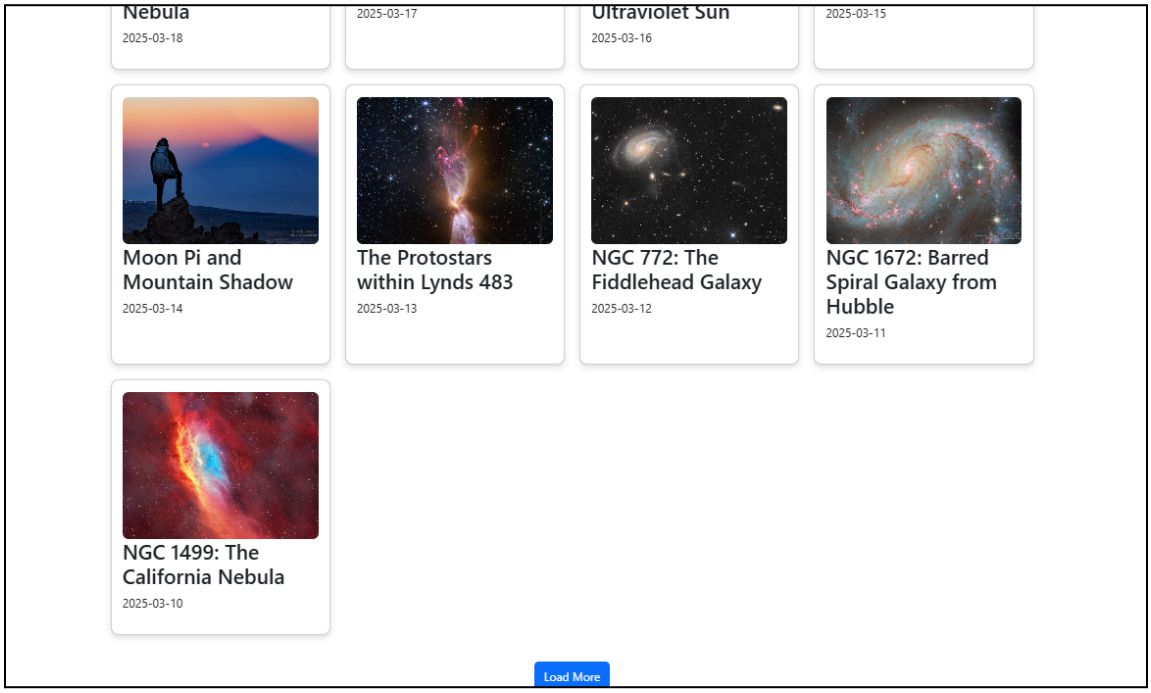
    Allows users to explore previous Astronomy Picture of the Day (APOD) images by selecting a specific date.

  - **Displays Archived APODs in a Grid/List**
    Shows past APODs with titles, images, and descriptions in an organized layout for easy access.



- **Pagination for APOD Archive**
  Implements a "Load More" button to fetch the next 20 past APODs from the NASA API when clicked.

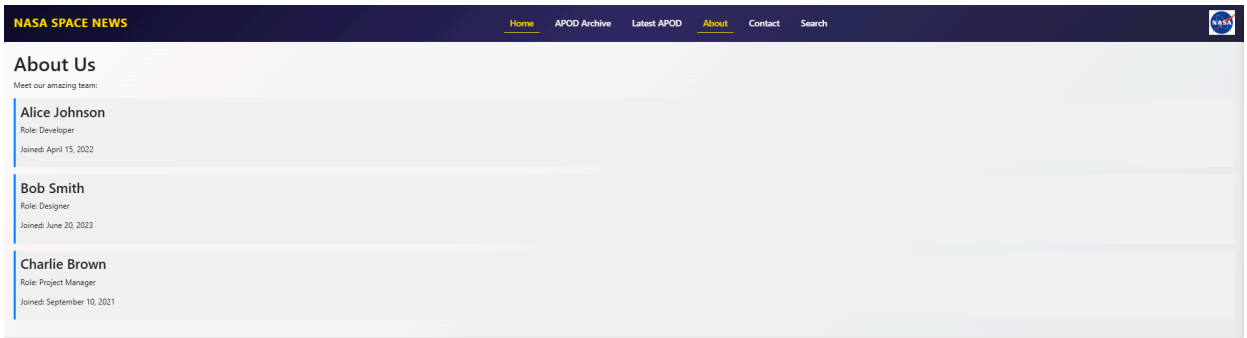
- **Efficient Data Fetching**
  Uses API requests with date parameters to retrieve the next set of APODs without reloading the entire page.



About Us

- **Uses Angular Pipeline for Formatting**
  Implements Angular Pipes to format and display team member details like names, roles, and descriptions.

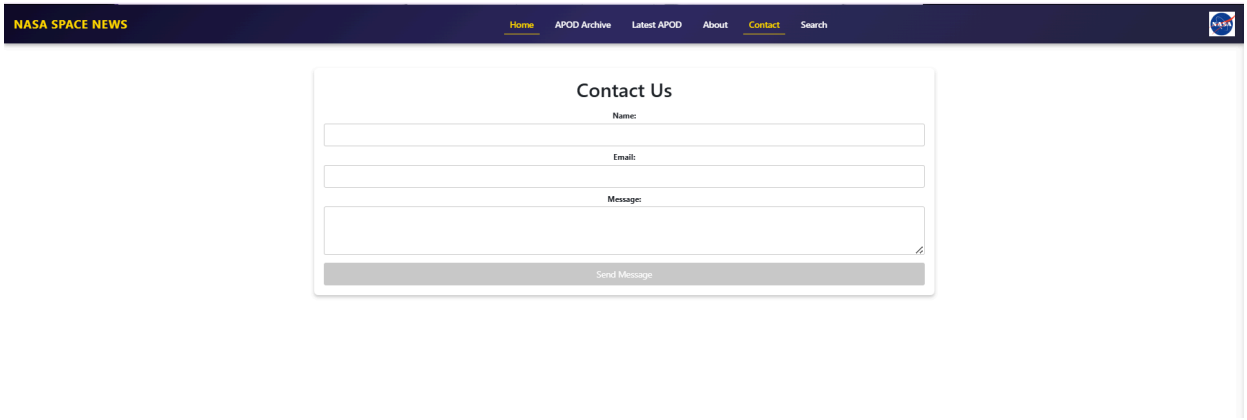
- **Displays Team Information Dynamically**
  Fetches team details from a service or JSON file and presents them in a structured layout with images and roles.



Contact Us

- **Uses Angular Forms for User Input**
  Implements a contact form with fields like name, email, and message using Angular Reactive or Template-driven Forms.

- **Stores Data in JSON**
  Captures form submissions and saves the data in a JSON file or sends it to a backend API for storage.



Search Bar

- **Search APOD by Date**
  Allows users to enter a date in the search bar to fetch the corresponding APOD from NASA's API.

- **Displays Result in a Card**
  Shows the APOD image, title, and description in a card format after retrieving data based on the selected date.

Select Date:

30-03-2025

View APOD

A Partial Solar Eclipse over Iceland

2025-03-30

What if the Sun and Moon rose together? That happened yesterday over some northern parts of planet Earth as a partial solar eclipse occurred shortly after sunrise. Regions that experienced the Moon blocking part of the Sun included northeastern parts of North America and northwestern parts of Europe, Asia, and Africa. The featured image was captured yesterday over the Grábrók volcanic crater in Iceland where much of the Sun became momentarily hidden behind the Moon. The image was taken through a cloudy sky but so well planned that the photographer's friend appeared to be pulling the Sun out from behind the Moon. No part of the Earth experienced a total solar eclipse this time. In the distant past, some of humanity was so surprised when an eclipse occurred that ongoing battles suddenly stopped. Today, eclipses are not a surprise and are predicted with an accuracy of seconds. Growing Gallery: Partial Solar Eclipse of 2025 March