Cosmonauts of the Round Table SPA Submission

1. Problem Statement and Persona

Vision

When I open the app I see a gallery of human spaceflight. Portraits of astronauts and previews of future expeditions appear instantly in a clean grid. Under each astronaut card there is an image and brief biography. Going to the future expeditions page shows a concise video highlight for each expedition. Whether I use a laptop, tablet or smartphone the layout adapts smoothly. A persistent navigation bar at the top keeps orientation clear and avoids technical menus.

Issue

Profiles of astronauts and future expeditions are scattered across NASA archives, Wikimedia Commons and specialist websites. Each source often requires large downloads or exposes dense technical language. Casual learners and visual thinkers either spend too much time chasing content or abandon their search entirely. This fragmentation prevents users from accessing the personal stories that bring space exploration to life.

Five Ws

Who I am targeting are mobile first STEM learners aged from fifteen to twenty five who favour visual storytelling over long passages of text. What I am building is a single page React and Vite application that brings together images, concise biographies and embedded mission videos in interactive cards and overlays. Where users will access it in any modern browser or on any device using responsive grid layouts and fluid typography that scale naturally. When content appears it does so immediately on page load and deeper dives open in overlays so the core experience never reloads. Why this matters is because eliminating technical clutter makes the human side of spaceflight engaging and memorable for a new generation.

Persona Sophie

Sophie is seventeen years old and lives in South London. She balances her A level physics and art classes with digital sketching on her phone. Each evening she spends about two hours browsing science and art content. She wants one place where she can browse astronaut portraits, read life stories and watch mission highlights without hunting through separate PDFs or external websites. Slow loading archives, missing image descriptions and layouts that break on smaller screens frustrate her and drive her away. She taps interfaces expecting immediate visual feedback and immediately shares her favourite discoveries on social media. For Sophie a fast single page app that loads content instantly and uses clear focus and hover cues is the only way to keep her engaged.

Design Considerations

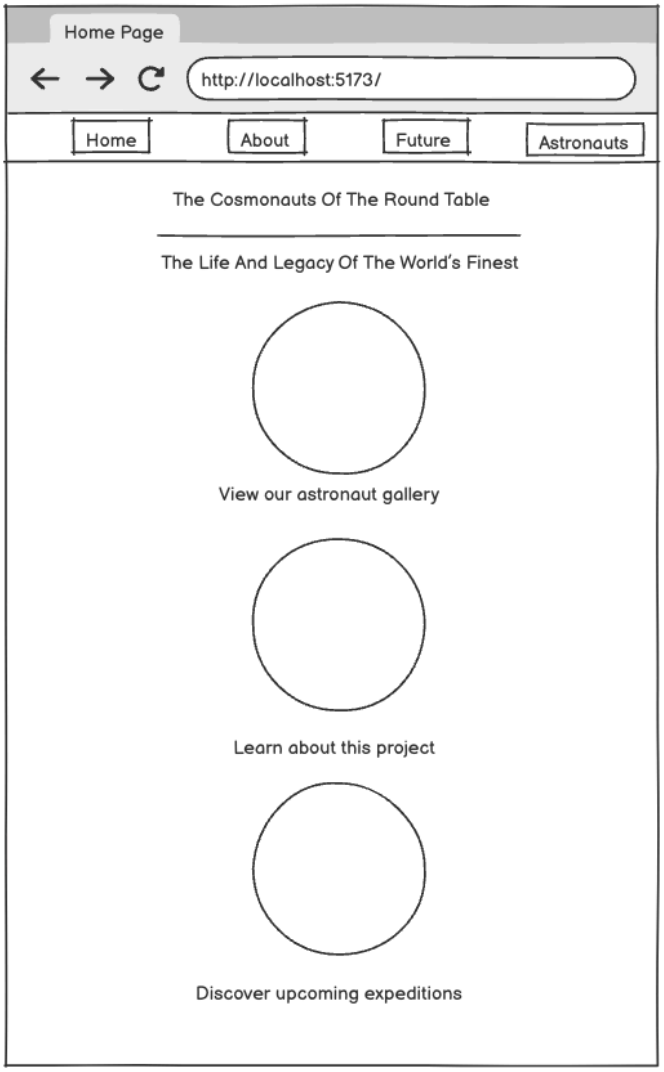
I use CSS clamp for fluid typography and combine grid and flex layouts so the interface adapts to any screen width. I optimise network performance by bundling assets with Vite and

serving compressed images to ensure the app loads in under two seconds on typical mobile connections. Accessibility is built in with meaningful alt text for every image, ARIA labels on controls and visible keyboard focus indicators. The first time experience features a clear top navigation bar and a prominent header that immediately communicates purpose. Modal overlays provide deeper context without leaving the main gallery view.

By centring on Sophie’s needs and solving the fragmentation of spaceflight content, Cosmonauts of the Round Table delivers a fast, engaging gateway to the human stories behind exploration.

2.Wireframes

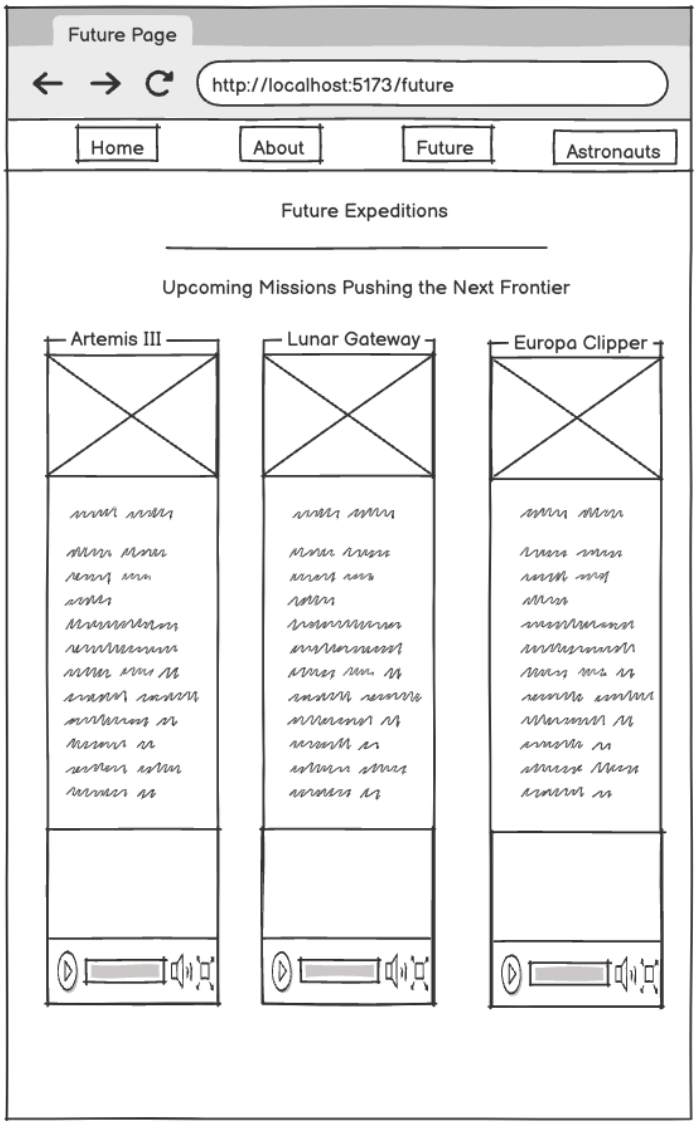
Home Page



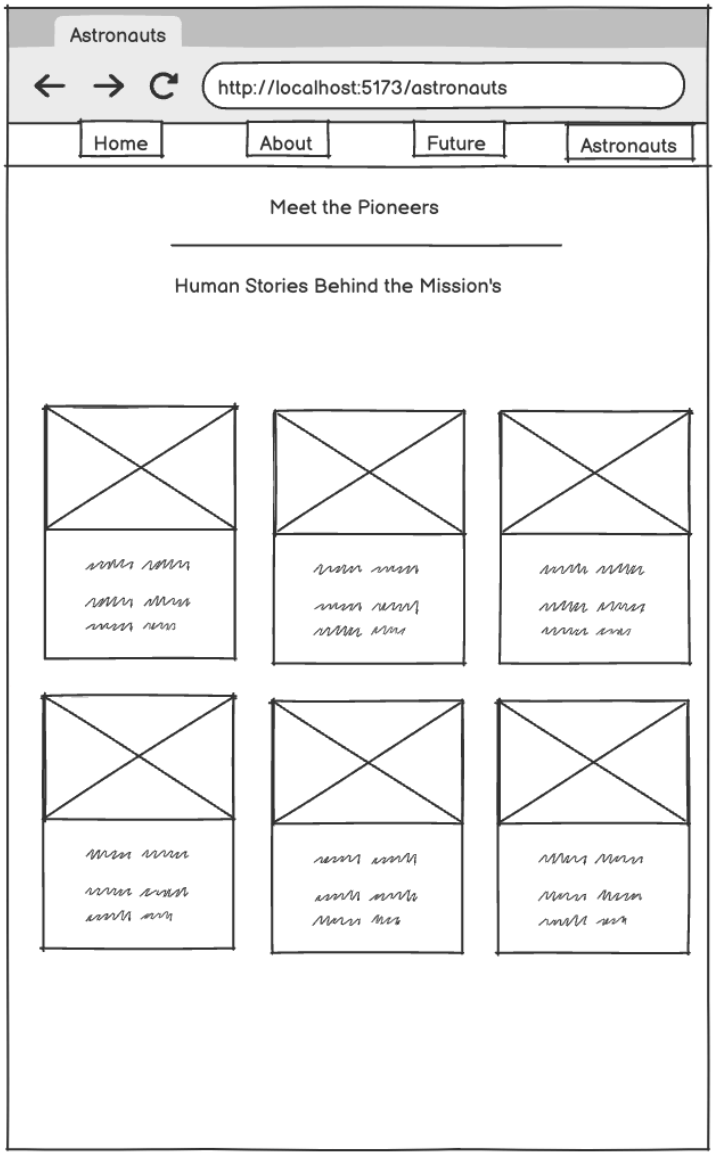
About Page

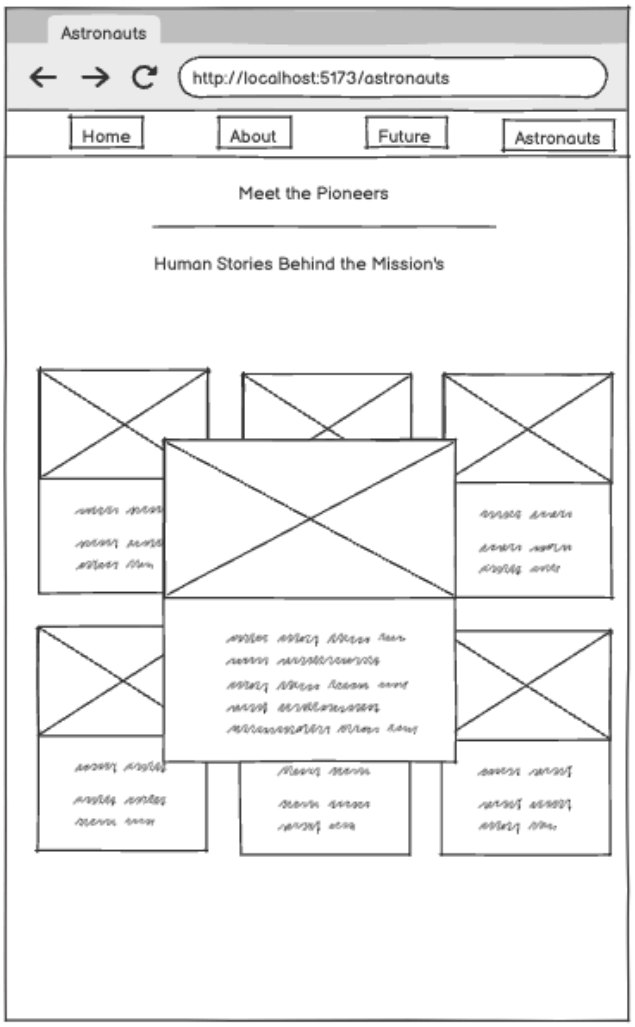

About Page
http://localhost:5173/about
Home
About
Future
Astronauts
About Us
Illuminating the Human Side of Spaceflight
Email
Your Message
Submit

Future Page



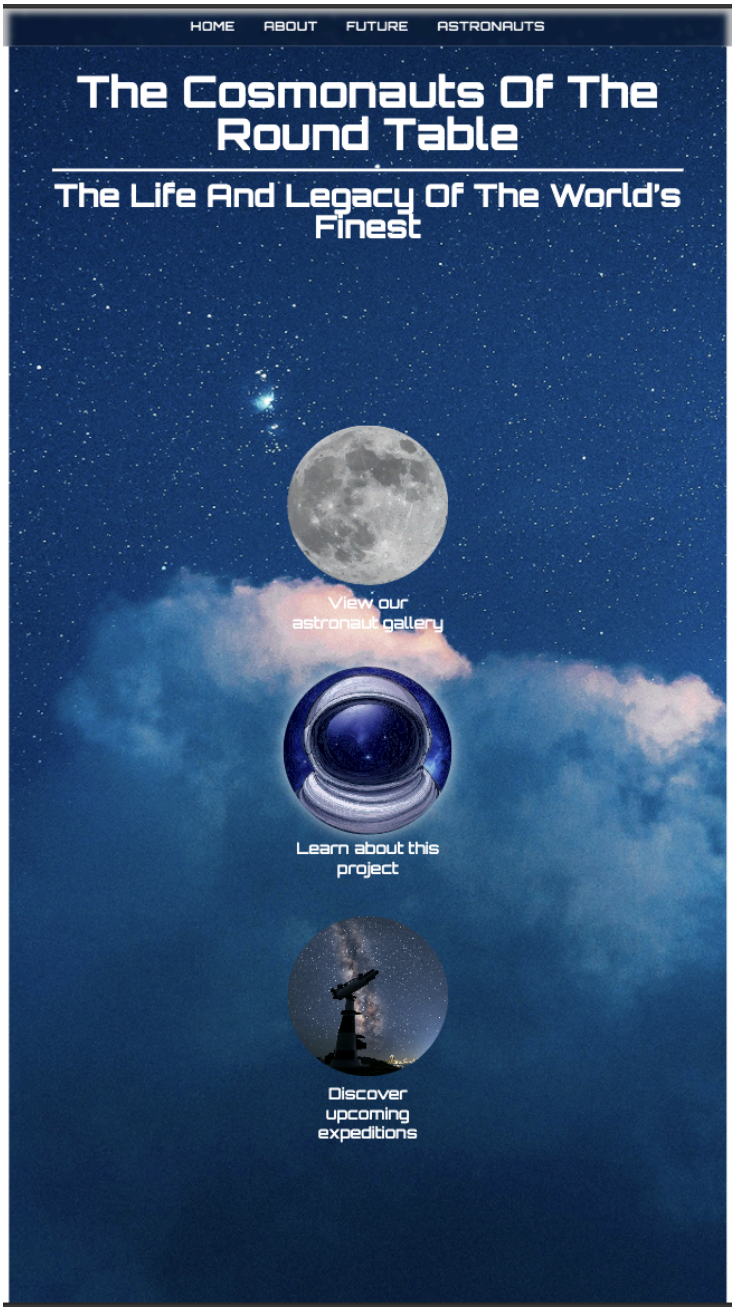
Astronauts Page


Astronauts
http://localhost:5173/astronauts
Home
About
Future
Astronauts
Meet the Pioneers
Human Stories Behind the Mission's

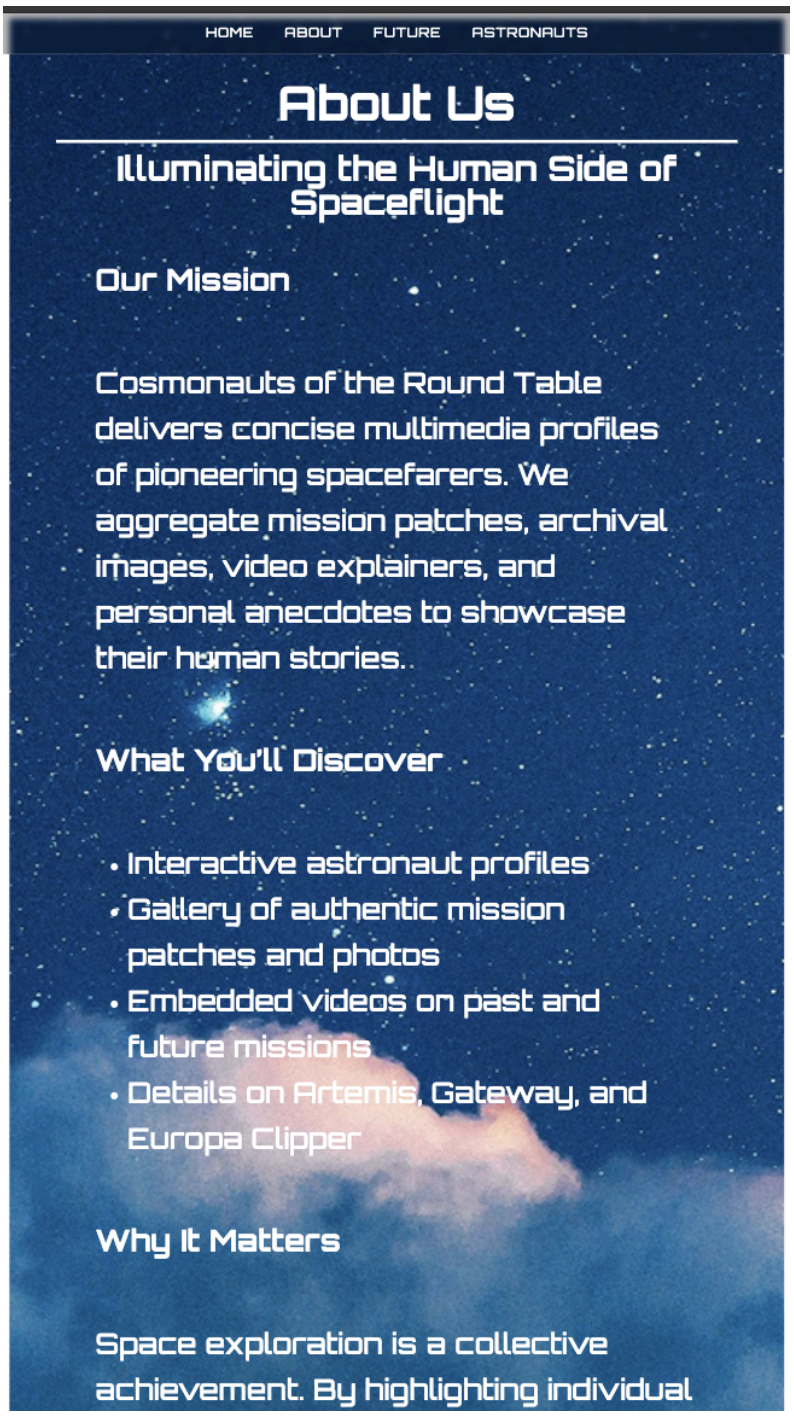

Astronauts
http://localhost:5173/astronauts
Home
About
Future
Astronauts
Meet the Pioneers
Human Stories Behind the Mission's

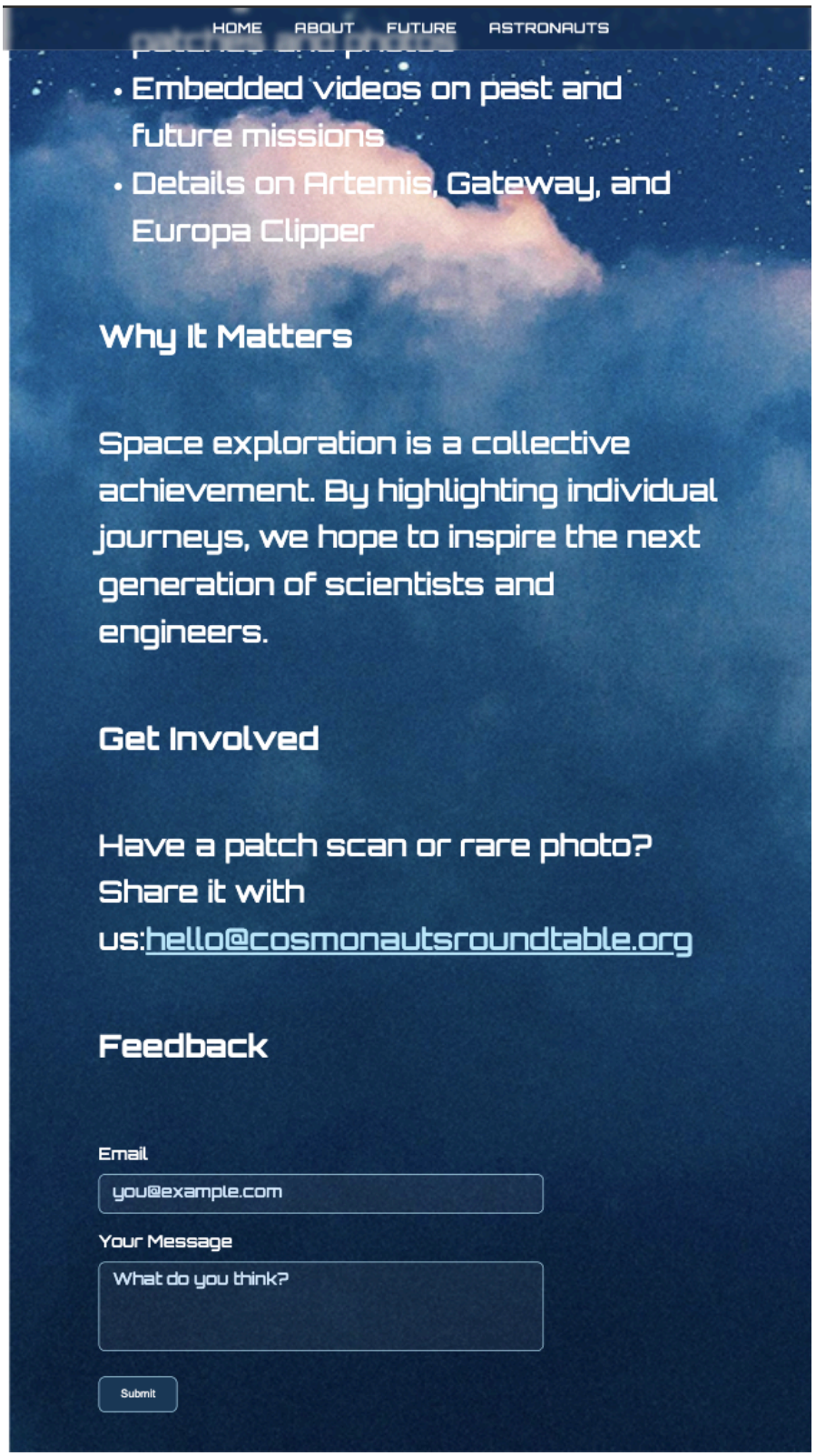
3. Key Feature Screenshots

Home Page Screenshot:



About Page Screenshot:


HOME ABOUT FUTURE ASTRONAUTS
About Us
Illuminating the Human Side of Spaceflight
Our Mission
Cosmonauts of the Round Table delivers concise multimedia profiles of pioneering spacefarers. We aggregate mission patches, archival images, video explainers, and personal anecdotes to showcase their human stories.
What You'll Discover
• Interactive astronaut profiles
• Gallery of authentic mission patches and photos
• Embedded videos on past and future missions
• Details on Artemis, Gateway, and Europa Clipper
Why It Matters
Space exploration is a collective achievement. By highlighting individual


HOME ABOUT FUTURE ASTRONAUTS
• Embedded videos on past and future missions
• Details on Artemis, Gateway, and Europa Clipper
Why It Matters
Space exploration is a collective achievement. By highlighting individual journeys, we hope to inspire the next generation of scientists and engineers.
Get Involved
Have a patch scan or rare photo? Share it with us:hello@cosmonautsroundtable.org
Feedback
Email
you@example.com
Your Message
What do you think?
Submit

Future Page Screenshot

Astronaut Page Screenshot

4. How to Run

I scaffolded the project using Vite with React:
```bash
npm create vite@latest cosmonauts -- --template react
cd cosmonauts
npm install
npm run dev
```
This starts the development server at http://localhost:5173/.

5. Resource List

NASA (1969)
Neil Armstrong works at the lunar module on the Moon [Photograph]. Wikimedia Commons. Available at: https://commons.wikimedia.org/wiki/File:Neil_Armstrong_pose.jpg (Accessed 6 May 2025)

NASA (1977)
Valentina Tereshkova at Johnson Space Center [Photograph]. Wikimedia Commons. Available at: https://commons.wikimedia.org/wiki/File:Valentina_Tereshkova_(18744135635).jpg (Accessed 6 May 2025)

Trikosko M.S. (1974)
Michael Collins, former astronaut now with Smithsonian [Photograph]. Wikimedia Commons. Available at: https://commons.wikimedia.org/wiki/File:Michael_Collins_former_astronaut_now_with_Smithsonian.jpg (Accessed 6 May 2025)

NASA/Glenn Research Center (1979)
Dr Sally Ride [Photograph]. Wikimedia Commons. Available at: https://commons.wikimedia.org/wiki/File:Sally_Ride.jpg (Accessed 6 May 2025)
NASA (2001)
Peggy Whitson aboard ISS Expedition 16 [Photograph]. Wikimedia Commons. Available at: https://commons.wikimedia.org/wiki/File:PeggyWhitson-NASA.jpg (Accessed 6 May 2025)
NASA/JSC (2016)

Thomas Pesquet official portrait (cropped) [Photograph]. Wikimedia Commons. Available at: https://commons.wikimedia.org/wiki/File:Thomas_Pesquet%2C_official_portrait%2C_2016_%28cropped%29.jpg (Accessed 6 May 2025)

NASA (2020)
The First Element of the Spacecraft For Artemis III on This Week @NASA August 28, 2020~orig.mp4 [Video]. NASA Image and Video Library. Available at: https://images-assets.nasa.gov/video/The%20First%20Element%20of%20the%20Spacecraft%20For%20Artemis%20III%20on%20This%20Week%20@NASA%20August%2028,%202020/The%20First%20Element%20of%20the%20Spacecraft%20For%20Artemis%20III%20on%20This%20Week%20@NASA%20August%2028,%202020~orig.mp4
(Accessed 7 May 2025)

NASA (2022)
jsc2022e046267~orig.jpg [Photograph]. NASA Image and Video Library. Available at: https://images-assets.nasa.gov/image/jsc2022e046267/jsc2022e046267~orig.jpg (Accessed 7 May 2025)

NASA (2023)
jsc2023m000213_Gateway_LunarSpaceStationTrailer_4K~orig.mp4 [Video]. NASA Image and Video Library. Available at: https://images-assets.nasa.gov/video/jsc2023m000213_Gateway_LunarSpaceStationTrailer_4K/jsc2023m000213_Gateway_LunarSpaceStationTrailer_4K~orig.mp4 (Accessed 7 May 2025)

NASA (2024a)
jsc2024e041788 (1)~orig.jpg [Photograph]. NASA Image and Video Library. Available at: https://images-assets.nasa.gov/image/jsc2024e041788%20(1)/jsc2024e041788%20(1)~orig.jpg (Accessed 7 May 2025)

NASA (2024b)
KSC-20241014-PH-SPX01_0002~orig.jpg [Photograph]. NASA Image and Video Library. Available at: https://images-assets.nasa.gov/image/KSC-20241014-PH-SPX01_0002/KSC-20241014-PH-SPX01_0002~orig.jpg (Accessed 7 May 2025)

NASA/JPL (2022)
JPL-20220811-Europa Clipper Arrives in its New Home-UHD_wMetadata~orig.mp4 [Video]. NASA Image and Video Library. Available at: https://images-assets.nasa.gov/video/JPL-20220811-Europa%20Clipper%20Arrives%20in%20its%20New%20Home-UHD_wMetadata/JPL-20220811-Europa%20Clipper%20Arrives%20in%20its%20New%20Home-UHD_wMetadata~orig.mp4(Accessed 7 May 2025)

React (2024)
React v18.2.0 [Software]. Available at: https://reactjs.org/ (Accessed 7 May 2025)

React Router (2024)
React Router v6 [Software]. Available at: https://reactrouter.com/ (Accessed 7 May 2025)

Vite (2023)
Vite v4 [Build tool]. Available at: https://vitejs.dev/ (Accessed 7 May 2025)

Google Fonts (n.d.)
Orbitron [Font]. Available at: https://fonts.google.com/specimen/Orbitron (Accessed 7 May 2025)

Background image
Pexels. 2021. Blue and white sky with stars [Photograph]. Pexels. Available at: https://www.pexels.com/photo/blue-and-white-sky-with-stars-4737484/ (Accessed: 7 May 2025).

Home Page Button Image
Grok AI 2025 Telescope pointing at stars [Digital image] Generated via Grok AI using a “telescope pointing at stars” prompt (Accessed 7 May 2025)

Home Page Button Image
Grok AI 2025 Astronaut helmet [Digital image] Generated via Grok AI using an “astronaut helmet” prompt (Accessed 7 May 2025)

Home Page Button Image
Grok AI 2025 Moon [Digital image] Generated via Grok AI using a “moon” prompt (Accessed 8 May 2025)