

Project Exam

Report

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Final Product: <http://noroff.maximilians.work>

Git Repository: https://github.com/maximilian-dybvik/projectExam_2018

Brief:

Develop a microsite for SpaceX/NASA to raise awareness about space program activity around the world, and should appeal to a specific target audience and provide links to more information, live feeds of launches, and so forth.

The site should include a minimum of four (4) pages, be responsive, and function well on a variety of platforms. The site should employ Javascript/JSON API for dynamic and construction of HTML/CSS. A contact form with both HTML5 and Javascript validation is also required. The site should be well-designed, easy to use, and conform to WCAG standards.

Planning:

The first stage of the planning revolved around blocking out the work distribution. What needed to be done and in what order, I did this by creating a simple mind map as a basis for my Gantt chart (see figure 1.1).

SpaceX Microsite - Gantt Chart

Project Title	SpaceX Microsite
Project Manager	Maximilian Dybvik

Company Name	Varg Design
Date	May 20th 2018



Figure 1.1 (Gantt chart available in the GitHub repo)

I then proceeded to create a functional specification document, detailing the site's functional requirements. The functional specifications was based on the initial focus on SpaceX first manned mission to the International Space Station (ISS).

However during the design process and review of the available API, the site's focus changed more towards SpaceX upcoming mission to Mars and its Big Falcon Rocket (BFR). This in turn excluded functional requirements like, being able to view who's at the ISS at any time, view current position of the ISS, and explore Falcon 9 and Dragon data.

Design:

I started by making paper sketches of the layout and then iterate on those I felt worked best before redrawing my sketches to a final wireframe for both mobile and desktop view (*wireframe available in the GitHub repo*). After having the wireframe I spent some time creating a color palette and pairing fonts (*see figure 3.1*). Next, I blocked out the content and placeholders while going through the SpaceX API's, grouping content based on what page they belong to and how it all should be formatted. After all was blocked out in my layout I started refining the design, adding color and images.



MONOTON - REGULAR

Logo

Orbitron - Regular
Headers

Open Sans - Regular
Body copy

Figure 3.1

The site's concept is space travel/technology, with focus on interplanetary space travel and colonization of our neighboring planet Mars.

Given the nature of space technology and interplanetary travel, the I decided that a modern, high contrast, and flat design was fitting. The design revolves around the use of large illustrations, especially the index header illustration which displays a silhouette of an astronaut looking up at what appears to be Mars (*see figure 3.2*).



Figure 3.2

The design principles surrounding the illustrations are heavily based on figure-ground, using contrasting colors and recognisable shapes to create an illustration with depth.

The color palette is simple, utilising only three high contrasting colors, white, magenta and a really deep blue. This is to maintain contrasting modern look and help with legibility.

The fonts chosen for this project was Monoton, for the SpaceX logo. A geometric sans serif header font, with a line art style that adds to the futurest feel of the site.

Orbitron for all the headers. A sans serif monospace font, with a typewriter feel, this was chosen with the idea that the typewriter look is often related to sci-fi, military, and space, often depicted in feature films and tv shows for displaying information.

Open Sans for the body copy. A modern sans serif, often used on web and matches nicely with the header font as well as it has great legibility.

HTML/CSS:

The code itself was written entirely in SASS and Pug/Jade, a preprocessor language for CSS and HTML respectively. The reason for this is that SASS combined with a 7-1 folder structure allows for simpler editing and maintenance of the code, and makes it easier for other developers to pick up the project for future changes. Pug/Jade allows for a highly legible and semantic markup with the use of includes for repeating elements like navigation bar and footer.

Interface Design:

The large animated header illustration grabs the user's attention and presents the premise of the site/page. As the user scans down the page he/she sees an animated arrow pointing down, affording the user to either scroll down for more content or to click/tap the arrow for a smooth transition to the next section of the page.

All buttons and clickable elements have a hover/active state to tell the user that the element is interactable.

Javascript:

The site uses several Javascripts all with their own purpose.

The smooth-scroll.js allows for a smooth scroll transition when clicking the arrow down icon.

The typed.js is a Javascript for displaying the animated typewriter effect seen in the headers.

Particles.js is a Javascript for procedurally generating particles that float in different directions as part of the background in the headers. The particles.js also draws lines between the pointer position and all nearby particles for added interactivity.