



# Technical Report

Project Exam 1 - SpaceX Microsite

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# **1. Summary**

This report contains decisions made throughout the project exam.  
The project is build up by 4 pages of html, 1 css and 4 javascript files.  
Each page are made to be responsive and have good semantic structure.  
WCAG and design principals are taken into hand and displayed throughout the project.  
Personas and scenarios are made to make the best user and Interactive experience.  
Lots of hour was laid down on javascript with passing and failing.



## **2. Body**

### **2.1. Introduction**

The assignment is to make a microsite for SpaceX or NASA, containing information about space programs, launches and relevant link. A microsite is a content site that lives outside of the company homepage, in this case outside SpaceX homepage. Microsite are usually made for a specific/ niche audience. I will categorise my audience as someone interested in space launches, SpaceX or persons working on school assignments.

I chose SpaceX as my desired space program, after inspecting both SpaceX and Nasa API's. I find the SpaceX API more interesting to work with. As NASA had more information about planets, solar systems and observations.

The site I made have focus on launch dates and information about them.

### **2.2. Main section of report**

#### **Research:**

I started of looking at other microsite for inspiration and ideas on this topic. What I found is that microsite have focus on a specific theme and not much else around it. Many companies have several microsite for different topics.

My topic will focus on rocket and space shuttle launches. I started of planning how my mobile layout would look like, as I will start making codes for mobile devices first.

#### **Users:**

Girlfriend, 39yo. Is about to start working at the Hospital, but has many years of experience in retail store.

Friend 1, male, 31yo. Working with as a human resources provider. He has interest in technology and innovation.

Friend 2, male. 37yo. Working within IT. Over average interested in space technology as a hobby.

#### **Observation**

I gave all the users information about the site purpose and then let them interact with my site. They all used mobile phones during the observation. Links and buttons was easy to understand for the users. The hoover function on buttons was well liked.



Contact information with both visual and click function. Launch time and date was a bit difficult to understand at first. Back button worked.

## Personas

Marthe  
39 Years old  
Married  
Works at the local Hospital  
Vocational school

Marthe works at the local Hospital. On her spare time she likes to go hiking in the forest and take a glass of wine with friends.

Goals - Find information about next rocket launch.

Usability needs - Website with easy navigation and good user experience.

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Robin  
31 Years old  
Single  
Works with HR  
Vocational School

Robin loves to learn new meal dishes from the Internet and cooking book.  
He usually makes food for his friends when they come by to watch a football match.

He is interested in everything about new technology.

Goals - Watch new groundbreaking space launches live on his mobile or airplay it over to the television.

Usability needs - Easy to use. Details about the launches and when launch is.

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Robin  
37 Years old  
Single  
Works with Computers  
University Bachelor Degree

Robin loves to travel when he's not at work. On travels he loves visiting football stadiums and attend matches.



He has good computer skills and uses different platforms to make him self up to date on space news.

Goals - Find information about space launches.

Usability needs - Good web layout.

## Scenario

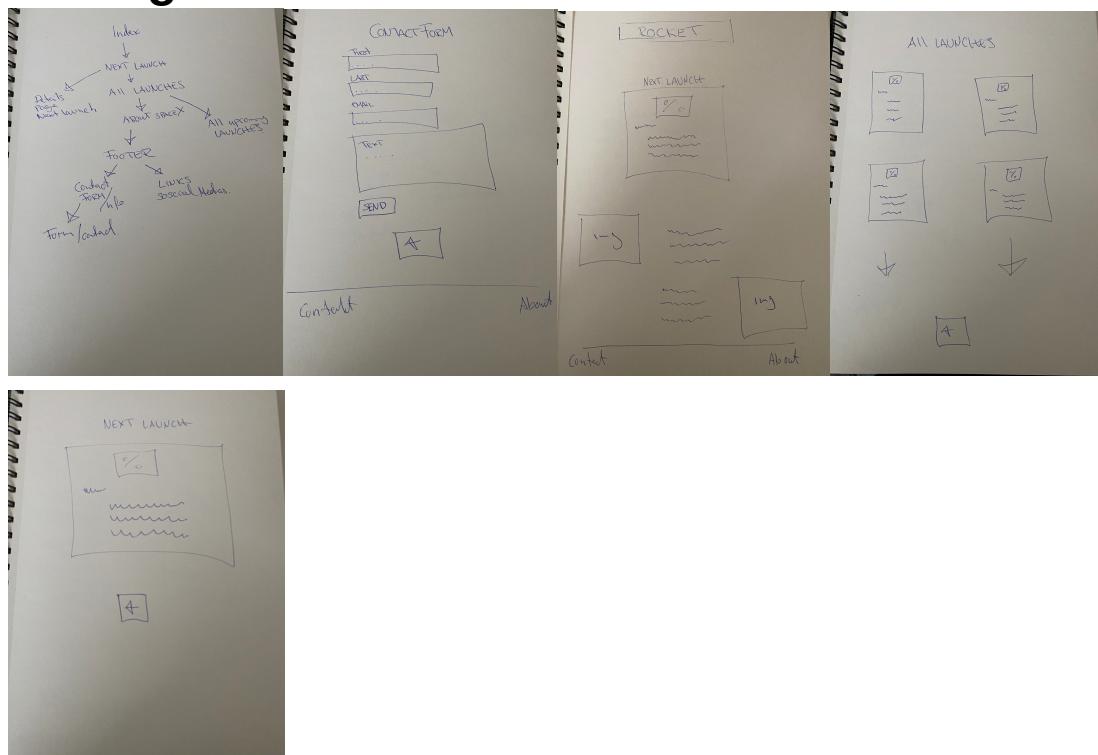
Users enters the website. First thing the users see is a few sentences about SpaceX and their vision. User can see a box with information about the next launch. There is a button for more information about the next launch.

Underneath there's a button, this button will take the user to a site with all upcoming launches and description. When finish the user can click the back button visualised as a back-arrow.

Scrolling further down on the index page, there are space related pictures and some information that makes SpaceX different from others (Re-use / launch and landing rockets or spacecrafts). This is SpaceX goal. Further down is a quote by the founder of SpaceX, Elon Musk , followed by contact information and SpaceX links to social medias (twitter, instagram, Facebook and YouTube). Links to SpaceX, NASA and the magazine "Space Flight Now" is added as links.

Contact information is tested and form is tested.

## Making the site



HTML - 4 pages.

SEO are added in the meta description tag.

All pages has correct <title>. Details page has a dynamic <title> following the next space launch. Header tags such as h1 and h2 are used wisely, so that search engines know what information this page contains. But I use h1 on both the page and the next launch card. Images used are resized using Adobe Photoshop. They went from being 2,6mb and 1,3 to 720kb and 352kb, without loosing to much details when displayed on a bigger screen.

Pictures used are from NASA and the media usage guidelines are read and followed. Under the footer a link to NASA homepage is also used ,as there is no use of commercial offers or goods. Images have alt attribute, alt attribute provides text information if the image cannot be viewed (screen reading or error loading).

<div> are used when needed. Class or id as well.

The layout I used in <body> is <header>,<main> and <footer>. <footer> is skipped on detail and all launches page. I wanted this two pages too only have the back button displayed in the bottom. <footer> is used with information in the contact form page, as I find it relevant for the page.

Relevant address attributes are used in the <footer> contact information. Unordered list are used for social medias and related links.

<script> element is added before closing the <body> element in each page.

The contact form is made with different elements and type attributes for further use.

On mobile forms input must have a text or number value selected in html. Then the user do not need to select between the numeric or text keyboard on their device, and not feel that this takes time.

## CSS - 1 document

Link to css file is added in meta. Link to style for [fontawesome.com](https://fontawesome.com) is also added (used for social media icons in footer).

I made mobile responsiveness first before making it responsive for tablet and desktop monitors.

I have not used active or visited link for the hover selector, because I do not think this microsite links need it. It is almost just back and forward buttons.

Display flex is used to divide the <footer> in 2 columns.

Paragraph elements are styled using width.

## JavaScript - 4 documents

Javascript is made on separate files. Postman is used as API client.

JS for the index page is fetching data on the next launch from SpaceX api. The fetch show name, date and logo for the launch. It is all gathered inside a class. Inside this class there is also a link to a details page for this next launch. Details page uses the same api call and has a description of the launch. Details page has a dynamic <title> following the next space launch.

An error will display if the api call fails. Styling is used to make the error display red (warning colour).

JS for the all launches site has a api call from SpaceX with all expected launches in the future. They are lined up as a timeline with name, date, description and logo, if available.



AllLaunches.js loops through an array of all upcoming launches. Grid layout is used to display more columns when bigger display.

Form page has validation that requires a specific amount of letters or symbols on each of the input IDs. If wrong, error message underneath label will appear.

When form is submitted a message will appear, telling the user the form has been sent to php.

In general I think the page have credibility and would be taken serious.

## SEO

I added both meta keyword and description to the <head> element for good SEO. <h1> and <h2> text are selected carefully to represent the page as its best.

## Graphic Design

The microsite logo is made in Adobe Illustrator.

Visually my pages are easy to read and the eye will follow the content vertically. On bigger screens the all launches page will have a bit more zig zag feel, but should be easy to focus on when there is no other distractions. Information about the hierarchy is pictured above with other images. I have tried to use as much white space as I can to make it as readable as possible. I used both centre align and left align where it fits best.

I have used Google fonts to pick my fonts. I use sans serif fonts because it is clean, easy to read and displays better on computers and mobile devices.

Fonts used: Oswald, Poppins.

I used Lora and Spiral for a Elon Musk quote with the use of serif.

Complementary colours are used for best contrast and visibility.

Font colour is #bababa for <p> and #c65600 for headers.

Background Colour is #001f7a with a black linear gradient to imitate the atmosphere.

Colours have good contrast and fulfils the WCAG requirements.

Link to several Social Medias owned by SpaceX has both name and Icons in the <footer>. Buttons have good contrast and understandable text, which make them visible and obvious. Good hover contrast and text on the button makes it very usable on both mobile devices and desktops.

### 2.3. Conclusion

A tough and fun project exam. I think we are being tested on so many topics.



I did not make a prototype for this assignment. I had to use my time wisely, when I struggle on some JavaScript topics. But I did make sketches and architecture hierarchy. The assignment was to make a microsite containing space programs, launches, related links and raise awareness about space program activity around the world. I think the targeted audience have a product they can use for just that.

Troubleshooting went well, except huge problems on how to exclude null values from api call (some img and descriptions are missing). I tried if else, on error event attribute with no luck.

### **3. References**

SpaceX.com



## **4. Acknowledgements**

[nasa.gov](#) - Images for index page.

[fontawesome.com](#) - Used for social media icons.



## **5. Appendices**

Start writing here

