**Functional Spec**

**Project exam 1. Christian skilbred Larsen Noroff 2020**

**NASA/SpaceX Microsite**

This Functional Specification Document is a document that provides detailed information on *how* the Microsite will function and the requested behavior.

**Project Scope:**

The goal for this site is to educate astronauts and space program employees. To raise awareness about the space program activities around the world. The site should appeal to a specific target audience, and provide links to more information. Should be a place for them to have a “calendar” that shows what is happening in the future, when it comes to plans for launches and useful information around the activity at the space station.

**Requirement specification:**

The site should get the information from the provided through an API call. This is very important, so that when the information changes in the API, the site should change its information accordingly (this is because it will be dynamic).

* User should easily interact and navigate throughout the site.
* It needs to be a **responsive site**, that will work on a variety of platforms. (computer, tablet and phone)
* Must have at least **4 html pages**. (Home, contact, about and activity)
* **Must** be an HTML5 contact form at the contact page, with JavaScript validation. (length, email, uppercase and lowercase letters + at least 1 numeric digit)
* **Important** to follow WCAG standards.
* Navigation is required to show the current page that the user is on.
* **Needs** to have a feature that show live coordinates, and the count of people currently in space. (home page)
* **SEO!** find appropriate meta tags, and a suitable title.
* The total cost for this project is **\_\_\_\_\_\_\_, -**
* Deadline is 24.05.2020 23:59.

**Design/layout:**

The main page will have the recognizable logo (Nasa/SpaceX), a familiar title, easy to understand nav-bar. The Nav-bar need a hover effect to indicate witch button is currently active and selected. Should use familiar space colors (black) maybe stars/space texture/pattern. Also blue is important! Location, contact info, services, social media, newsletter should be in the footer. The body of the main page should capture the user, needs to have a unique layout, interesting information like launches, dates, space count, and it should link to more information on the matter.

**How the site should be organized:**

The site should be as simple an easy to use as possible, but at the same time we are a site about “space” so we want the site to be futuristic and exiting. It will need to take the users attention, get them exited, make them be on the page as long as possible, and not to make them frustrated with lots of fancy animations etc… Contact info should be in the footer. Permanent navbar at the top of page, this will be useful for users that is familiar with the page, so they don’t have to scroll down the page to go where they need to go. (This can be changed during the development)

**Header:**

Picture of space with logo, when the logo is clicked it will have to take the user back to the Home page. Home page, contact page, about page and activity page, this should be included in the navigation.

**Main:**

Home page. interesting information about launches, space count, space station location, future activities and news/interesting information about the space program.

Contact page should be an easy page with recognizable contact form. With name, email, message box and submit button.

The about page should give the user information on successful missions, history of the space program, location and when it was founded.

The activity page should be the “calendar” this is where all information on activities for the future will come. Like launches, meetings and educational stuff.

**Footer:**

Button to get back to the top of the page. Sign up for newsletter field. Links to contact information/contact form. Copyrights and other useful links that will take the user to the different pages. F.eks Launch dates, and this will take the user to the right part on the activities page.

**Risks:**

**Error reporting**

**Key/Target audience:**

The key audience will be astronauts, NASA/SpaceX employees, its open for everyone who is interested, and will also focus on schools and students interested in space. And to inspire and get people interested.

**Project Planning**

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The red in the Gantt-chart is weekends, and should be time off, but can be used for work when needed

***“Referring to key words in the Gantt Chart”***

**Week 1:**

**1.1 Planning the 5 weeks:**

This period should go to reading and understanding the exam. Planning for the first delivery, which is 26.04.2020. this delivery will include the project planning, functional spec and a Gantt-chart. This means that you have to get a good look on the task, understand it, and start planning on what needs to be done, and in what order.

**1.2 Start with report:**

This time you have to start writing the report from the start of the project. This will make it easier for you to remember in more detailed what you have done, what you have changed etc... write a little every day, or a minimum 1 time per week.

**1.3 – 1.4 Project planning document & Gantt-chart:**

First you need to plan on what needs to be done. It can be helpful to write down on paper first, and then sort out what needs to be done, when and for how long. When you have a rough idea of the project you can start implementing it to your Gantt-chart. Your Gantt-chart, and project planning document is kind of a 2 for 1. You will make key words in the Gantt-chart, also with start and end date. In your project planning document, you will explain in more detail about the keywords.

**1.5 Functional Spec:**

In your functional specification document, you need to explain in detail the different functions that the site needs to have, and who needs to do what. This document should be like a blueprint for the developer/s and the team working on this project.

Should include:

* Scope of project – What are the goals, feature, tasks, deadlines, cost?
* Requirement specifications – what should the product/site do?
* Design/layout – needs to give an idea of what the customer wants, in form of layout, functions, colors, fonts and so on.
* Risks – What might affect the functional design?

**1.6 – 1.7 Overview and delivery week 1 & making git repository:**

This is the last day of the weekend, and it should be used for finishing all of the tasks made for week 1, from 1.1 – 1.5. this should then be delivered. The delivery date is Sunday 26.04.2020 at 23:59. So you also have the weekend to work, if this is needed.

Also make 1 git repository dedicated for all of the files, and everything else that is used, and is going to be used during the 5 weeks on this project exam 1.

**Week 2:**

**2.1 Target audience:**

Find your target audience. This means discovering people that are most likely to be interested in “space” space related information, and your microsite. Here is a list that can help you find an audience:

* Gender
* Age
* Profession
* Location

**2.2 Personas and Storyboards:**

After finding you target audience, you can start making some personas. These personas can include age, title, location, education, goal, motivation and pain point.

Picture below can give you an idea of a persona (Picture is from interaction design module 1 lesson 1.3)

Et bilde som inneholder skjermbilde

Automatisk generert beskrivelse

After, when the personas are done, you can make some storyboards. We want to map only the important actions and functions. The focus with the storyboards is how a persona achieves their goal, using the product/site.

**2.3 Research:**

This means finding out about the different API that are included in the project. What images to use, finding a good color palette, finding font/fonts. Find good, interesting information to use. And finding ideas for design. Need to think about WCAG standards.

**2.4 Prototype:**

Now we should have all of the information gathered, and be able to make a prototype in adobe XD. This should be as close to the finished product as possible, so it can be used as a guide when writing code for the microsite.

**Week 3 and 4:**

**3.2 – 3.3 & 4.1 – 4.3 HTML, CSS and JavaScript:**

This is where you have most time at your disposal, so take the time you need, and be organized in the code, it is important to have good structure. Start with your index.html and make a “template” this means that you write only the code that will be the same for all pages. Should be the same header and footer. Then you do the same for the CSS. Then you have a good start when implementing the rest of the content for the different pages. JavaScript should be used on most of the content, so that it is updated whenever the API is updated. The form on the contact page needs to have a form validation using JavaScript.

**Week 5:**

**5.1 – 5.2 error fix, repair and finalize:**

The microsite should be close to finished by now. The last week is dedicated for small changes, fixing eventual error, double checking everything, and making sure everything works as it is supposed to. Also, that the site is working on different screen sizes. Make sure everything is coming through, through the API calls. Any error at this point is not acceptable.

**5.3 Finish report:**

Last thing you do, but also important. Make sure you have written down all the time during the 5 weeks, reflect on your opinion on this project. Was there any struggle? What was god, did you learn something, what was challenging, and how did you solve the problem.

**! VERY IMPORTANT !**

Delivery **Must** be in PDF and **Must** be named using the standard: Date-assignment-name format.