



Noroff

School of technology
and digital media

Semester project 2

Tommy Johnsen

Word count: 2028 (references excluded)

Admin login:

username: **admin**

password: **Pass1234**

Link to Netlify (just in case):

<https://kind-poitras-d8dae7.netlify.app/>

Link to Adobe XD prototype:

<https://xd.adobe.com/view/84aa4de9-3f7a-4b96-8dac-c78bbec372fe-d1f9/>

Links to additional images at Cloudinary (remove https:// before inserting):

https://res.cloudinary.com/dhd2paq70/image/upload/v1639577241/mercury-flair_kg1xg1.jpg

https://res.cloudinary.com/dhd2paq70/image/upload/v1639577416/mercury-quantum_hiae20.jpg

https://res.cloudinary.com/dhd2paq70/image/upload/v1639219655/mercury-laser_xmy9fg.jpg



School of technology and digital media

Table of Contents

1. Introduction	
2. Design.....	
3. Technical	
4. References	



1. Introduction

For this semester project we were going to create an e-commerce website that has both customer facing and admin sections. I decided to create my own API in Strapi that is hosted on Heroku.

I chose to stay with the shoe theme though, and I have named the brand Mercury Shoes after the roman god with the winged shoes.

Mercury Shoes are a provider of quality running shoes in a wide range of unisex models. Their target audience are casual to advanced runners of both sexes and are especially aimed towards the age group between 25 to 45 years old. The price class is in the upper mid-range. The typical Mercury shoe wearer is more passionate and conscious about their gear than the average runner.

The brand adjectives I came up with is: Active, Bold, Energetic, Fresh, Sporty and Trendy.



2. Design

The trend for e-commerce sites that sell clothing/shoes seems to be to use a very limited colour-palette with a lot of greys and strong contrast like black and white. Personally, I find some of these sites to be so minimalistic and colourless that they become hard to navigate.

I aimed to comply to today's trend but at the same time add more clarity with a strong accent-colour, as well as some subtle patterns and gradients to prevent the site from looking too flat and boring.

For the accent-colour I have used a red-orange colour as I wanted a warm energizing and passionate colour reflecting the brand.

My main challenge for the design was to find the right hero-image, as great free options are hard to come by. I tried out several different options but was never quite happy with them until I found the one used in Adobe Stock. The image is warm, energizing and really draws the viewer in; and it has a colour theme matching the one I had in mind.

I'm using a different crop to make the hero image also look good on small screens. Looking at it now, it might have benefitted the design to add a third crop for the in between screen sizes. In a perfect world I would also like to have an image or two of happy people using the product, but these are even harder to come by. I'm also not completely happy about how the products banner image looks on larger screen sizes, as there is a bit too much road in it.

I also struggled to find the right font for the main heading. Originally, I had the used Soleil typeface as for my other headings. But when I tried out my favourite Futura I thought that it looked a lot better and provided better contrast from the rest of the design.

The logo-image is from Adobe Stock, and then I added the text and an extra red line in Illustrator. The logo might not be amazing, but I think it does the job. The red line in the logo is used throughout the design for clarity and as a brand signature.

I was a lot back and forth with the button design but decided to go with three different types. A main-button, a secondary-button, and an admin-button. I'm aware of the caveats of using red buttons, so I pushed the colour a bit into the orange spectrum to make it less agitating.

Since I have become a bit bored with the design of the Font Awesome icons, I have used icons from Material Design and implemented them as svg-code. The only exception is the social media icons as well as the plus/minus-icons that is Font Awesome font-icons.

In the design phase I made a full prototype in Adobe XD (without functionality), although there have been a few changes, especially on the homepage. An about page was also added later and coded directly. If I was to start over again, I might have wanted to spend more time finishing the prototype 100% before moving on to coding. But because of illness the first few days, I felt I had to move on.



Overall, I'm happy about how the general design worked out in the end. In my opinion the site is clear and easy to navigate. And as for now there is not much I would like to be any different other than the things already mentioned.

2. Technical

In this part I will start off by discussing my API and some of the added functionality and the reasoning behind adding it.

API

When deciding on what fields to add to my API, I wanted on one hand to create a realistic purchase experience suitable for a site that are selling shoes. And on the other hand, I did not want to overcomplicate things without much added benefits in regards of the aim of the assignment.

I landed on a compromise where I have added fields for a short-description, colour, stock status, and a boolean value that tells if the product is a main product or not.

The latter is only there because I have a specific shoe in the news section on the homepage with hardcoded text and image, that is linked to the matching details page. To prevent the code from potentially breaking, the main product can only be toggled in Strapi. I have also removed the delete button for this product, providing a warning/explanation message instead. For all items that are not a main product this value will be null, both by default and for newly created ones.

Since I simplified things a bit by having all models as unisex, the gender option is hardcoded, but the value is still sent into the basket array along with the colour and stock values. Since I only use one image per product the colour value is set to one option that is matching the corresponding image. Lastly, I also have an option to choose size and quantity; these are not provided in the API but the input values are read and sent to the basket array.

The size and quantity are unrelated to the stock value, but as I mentioned I wanted to include these fields for added realism and to practice sending other types of input data to local storage, not to create a fully functional stock feature.

Basket

The add to basket button toggles a product in and out of the basket as the brief required, but I have also included the option to remove a specific product from the list, as well as a button to clear the whole basket. When the basket is cleared the user is taken back to the products page with a set timeout function, while when by emptying it by removing individually items the user is kept on the basket page.



The shipping fee is set to 10\$ by default but is changed to zero if the order is over 50\$. If the order does not meet this requirement a message is shown to the user in the summary telling so.

Load more products button

When the products array contains more than eight products a load-more-button will be displayed. I realize that such a button normally is implemented to prevent long loading time, and that the proper way to do it would be to limit the number of items loaded from the array at once. But to prevent messing up the search function, and in my opinion provide better UX, I have set items exceeding eight to not be displayed with a CSS class. With this solution all items in the array are still searchable, while not overwhelming the user with a potentially very long list of products showing at once.

Every time the button is clicked up to eight new products will be displayed, until there are no more products left to show. This is also true when using the search function.

Add- and edit-form

When submitting the edit-form I have set a set-timeout function that redirects the user back to the products page after displaying a success message. When submitting the add form the user stays on the page as it is likely that the user probably would add more than one product in one session.

I have set the product in the basket to be updated accordingly when it is edited or deleted, as it made the most sense for me to make it so.

Image handling

I decided to implement images via URLs that are linked to images hosted at Cloudinary. In the add-form a default input with an URL linked to a placeholder image is provided. Additionally, a placeholder image is inserted with JS if the URL fields are left blank. This is true for both the add- and edit-form. Because of this there is no validation error when these fields are left blank.

Admin section

If the site was to have a user login as well, I probably would use an icon for this purpose and rather have a small button for the admin login to distinguish them. But for the purpose for this assignment, I thought the solution with an icon and a dropdown was appropriate.

When successfully logged in the top banner changes colour and displays the username of the logged in administrator. I have used a separate colour for all admin functionality with UX and consistency in mind.

The edit product button is provided both on the products page and the details page for easy access.



Featured products

Since it's not specified in the brief how many products that should be featured I decided against using a carousel, as it would not provide good UX if there is a lot of featured products.

Product cards

Since I like to have full control of how the cards is rendered, I have used a CSS grid with cards set to a fixed width. The provided image will need to be in a 5:4 aspect ratio to not be distorted.

Since the search function should read the description, I decided to also add a short description that is displayed in the cards. The idea is that the short description provides a summary or some key phrasings from the main description, so that the user will have some feedback when doing a search. Although the main description is hidden, it is still read by the search filtering.

To ensure that the cards also have the same height they also have a fixed height. The short description is set to an upper limit of characters and is set to break long words to make it fit in its available space.

Last minute additions

I made a last-minute change to the hero image alert if it fails to load. I think it's better to show a warning and let the loader spin until it's loaded, since my main content sits on top of it. The confirmation page is also a hasty last-minute addition. Clicking the button clear the basket from local storage and redirects to the homepage.

Conclusion:

The JS I struggled the most with was to make the add to basket and the basket functionality work as expected. The basket counter and quantity option added some extra complexity, and I was through some trial and error before I got everything to work in tandem.

It was somewhat challenging to split up the code in modules where appropriate and put them in reasonable subfolders, as there is a lot more components and moving parts at once than in previous projects. It might have been beneficial to split up the render-basket-file as the file is quite long. I also tried to do this, but then I could not get the summary to update without having to reload the page.

Being thorough with my code and making level 2 in all the Javascript2 assignments really paid off for this project, as I then already was familiar with most solutions needed.

All in all, I had less struggles in the JS coding than I feared in the begging of the project. I managed to solve everything without extensive googling and ever getting totally stuck. For the most part I consulted my own previous solutions.



As for the load more button there might be better ways to solve it, but at least it was a solution I came up with solely on my own.

It was also satisfying to make the basket counter work as I wanted, as this was a feature I really wanted to keep without abandoning the animation or in worst case the whole thing.

I added the image placeholder functionality to prevent a product to be added and not displaying an image. But I realize that the image still will be missing when providing a faulty link. It would have been nice to also have a placeholder inserted if no image was found in the URL, but I would not know how to make that work. It probably also would be good that have an URL validation, but since I already had added a hardcoded prefix, I was unsure if could make this work and down prioritized it.

Initially I wanted the user to be able to upload images and not using the URL option. But since I at the time was a bit behind schedule and my co-students was reporting troubles achieving this, I opted for the safer URL solution.



4. References

External resources used:

1. **Typeface research:**
 - The typography resource **Fontwolf** by Jeremiah Shoaf: www.fontwolf.com
 - The **Adobe Fonts** website
 - The book **Typography Essentials Revised and Updated** by Ina Saltz
 - Learning material provided by **Noroff**.
2. **Colors and gradients:**
 - **Adobe Color**
 - **CSS Gradient** editor at www.cssgradient.io
 - Learning material provided by **Noroff**.
3. **Photo and logo editing:**
 - **Adobe Photoshop**
 - **Adobe Illustrator**
4. **Coding:**
 - **CSS Tricks** at www.css-tricks.com
 - **Stack Overflow** at www.stackoverflow.com
 - **MDN Web Docs** at www.developer.mozilla.org
 - **W3schools** at www.w3schools.com
 - **Codinhoo** at www.codinhoo.com (for CSS animations)
 - Learning material provided by **Noroff**.
5. **Image hosting:**
 - **Cloudinary** at www.cloudinary.com
 - **Placholder** at www.placeholder.com
6. **API hosting:**
 - **Heroku** at www.heroku.com
7. **API creation:**
 - **Strapi** at www.strapi.io
8. **Accessability testing:**
 - **WAVE** extension in Firefox browser
9. **Testing:**
 - Testing is performed in the Firefox developer browser, the Chrome desktop browser and the Chrome browser on a Huawei phone and a Samsung Galxy S tab.

Images:

- **Hero image (Woman preparing for jogging)** by ivanko8o provided by Adobe Stock
- **Products banner (Man running)** by fotokitas provided by Adobe stock



- **Background pattern (Abstract modern background design)** by sapol provided by Adobe Stock
- **Logo image (Shoe sneaker logo)** by angga provided by Adobe Stock
- **Asphalt pattern** by The Creativv provided by www.unsplash.com
- **Red shoe in News section** by Revolt provided by www.unsplash.com
- **Product photo of Mercury Jet** by Duncan Andison provided by Adobe Stock
- **Product photo of Mercury Bullet** by Duncan Andison provided by Adobe Stock
- **Product photo of Mercury Speedster** by Imani Bahti provided by www.unsplash.com
- **Product photo of Mercury Cheetah** by Luis Felipe Lins provided by www.unsplash.com
- **Product photo of Mercury Cheetah** by Luis Felipe Lins provided by www.unsplash.com
- **Product photo of Mercury Lightening** by Trendes Studio provided by www.unsplash.com
- **Product photo of Mercury Comet** by Hipkicks provided by www.unsplash.com
- **Product photo of Mercury Vibrant** by Revolt provided by www.unsplash.com
- **Product photo of Mercury Super Sonic** by marffa provided by Adobe Stock
- **Product photo of Mercury Rocket** by marffa provided by Adobe Stock

Currently unused images uploaded to Cloudinary:

- **Product photo of red sneaker (Mercury Laser)** by Wengang Zhai provided by www.unsplash.com
- **Product photo of pink sneaker (Mercury Flair)** by Artem Bondarchu provided by www.unsplash.com
- **Product Photo of blue Hummel Shoe (Mercury Quantum)** by Mohammed Atti provided by www.unsplash.com

Typeface:

- **Soleil** by Wolfgang Homola, provided by Adobe Fonts
- **Proxima Nova** by Mark Simonson provided by Adobe Fonts
- **FF Tisa Pro and FF Tisa Sans Pro** by Mitja Miklavčič provided by Adobe Fonts
- **Futura PT** designed by Bauer Types, provided by Adobe Fonts

Icons:

- **Plus/minus-icons and social media icons** by Font Awsome
- **Basket-, login-, logout-, search-, and x-icon** by Material Design

Sites for inspiration and that are used in research:

- **Nike** at www.nike.com
- **Adidas** at www.adidas.com
- **New Balance** at www.newbalance.com
- **Hoka** at www.hoka.com
- **DNA-Shoes** at www.dna-shoes.com
- **Eurosko** at www.eurosko.com
- **Salomon** at www.salomon.com

