

E COMMERCE WEB APP

STRATEGY

Before building the app, we wanted to know what we were building and why. Like the application, the application development path had to have a strong structure as well as be motivating.

- The project was considered real;
 - To motivate, learn and complete the application at the same time, we considered the application as a real application. We considered that it would be completed and used for real and we would have real users.
- We planned the right steps for the project building;
 - Duke planifikuar hapat tonë, do na ndihmonte të identifikojmë qëllimet/arritje e tashme dhe të ardhme.
- Analyzet existing E-Commerce webs;
 - Para se filluam “*fazën e dizajnit*”, ne analizuam disa nga faqet më të mëdha E-Commerce -- si ato funksiononin, si ato dukeshin, si ndihmonin përdoruesit të orientoheshin lehtë, si e bënëin faqen më “user-friendly” me përdoruesit e të gjitha moshave.

DESIGN PHASE

We first started with "Branding". It is the process of creating a strong and positive perception of a company, its products or services in the mind of the customer by combining elements such as logo, design, mission statement and a consistent theme in all marketing communications. It is quite complex and requires careful planning, but its proper treatment defines the "face" as a company.

After Branding was completed, we continued to develop a prototype, what the site would look like, what the application features would look like, and what user interaction would look like. The program we used to do this is Adobe XD, a program widely used by today's web designers in various companies.

After we completed our prototype, we presented it to our friends, our families, various members of the communities where we considered them as site users. With their feedback, we improved our app.

DEVELOPMENT PHASE

After completing our prototype in terms of design, we proceeded to the "development phase". The first point we touched on is how we would contribute to application development, our database architecture, and what technologies we would use.

The development was divided into two subcategories:

1. Front End Development
2. Back End Development

As for the contribution, we used Git, where it allowed all members of the group to write code and view each other's contributions.

FRONT END DEVELOPMENT

As for Front End Development, we chose Material UI (MUI), a CSS Framework developed by Google.

- Why MaterialUI?
 - Material UI is a lightweight framework, its performance in the application would not affect much. It's very easy to use, you do not need to write much code to make the page responsive. It has a large amount of components. Using it offered us a lot of flexibility in Front End Development.

BACK END DEVELOPMENT

As for Back End Development, we chose NextJS (for site building), MongoDB (for database), PayPal API (to make payments).

For the database architecture, we selected MongoDB.

- Why MongoDB?
 - Qëllimi kryesor ishte të mësonim MongoDB, pasi që ekipi ynë kryesisht kishe punuar më parë me MySQL. Arsye tjetër për zgjedhjen e saj ishte skema e saj fleksibile e bën të lehtë zhvillimin dhe ruajtjen e të dhënave në një mënyrë që është e lehtë për programuesit të punojnë me të.

To develop the application, we chose Next.JS.

- Why Next.JS?
 - NextJS helps a lot in web application performance, offering better performance than ReactJS and also better results in SEO, where it is very important for an e-commerce platform. NextJS is capable of loading only the Javascript and CSS required for any given page. This makes loading the page much faster, as the browser does not download files that it does not need for the specific page that the user is viewing.
- Why PayPal for payment gateway?
 - No matter how average internet user you are, you are still familiar with PayPal. It provides fast, secure payments and identifies fraudulent payments. Using PayPal, we do not need to write thousands of lines of code to identify fraudulent payments or make payments. By writing our payment system, application speed would be heavier instead of using PayPal servers to perform those actions.