HACKHATHON
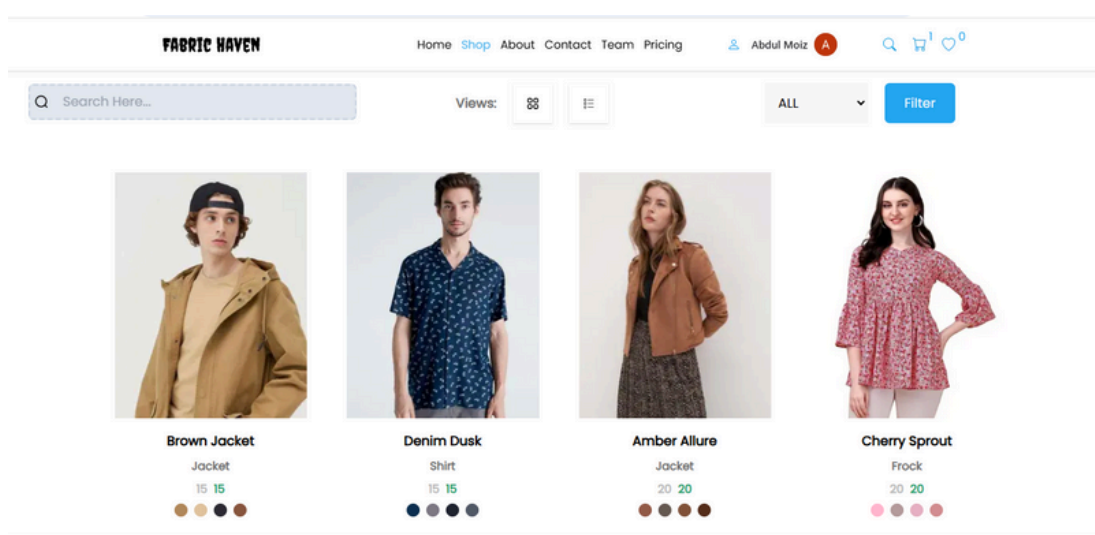# DAY 05

The Goal of Day 05 is to setup our marketplace through testing component and many other thing, handling errors, check performance for optimization and then ready to handle for real-time traffic enviroment and aim to deliever best User Experience.

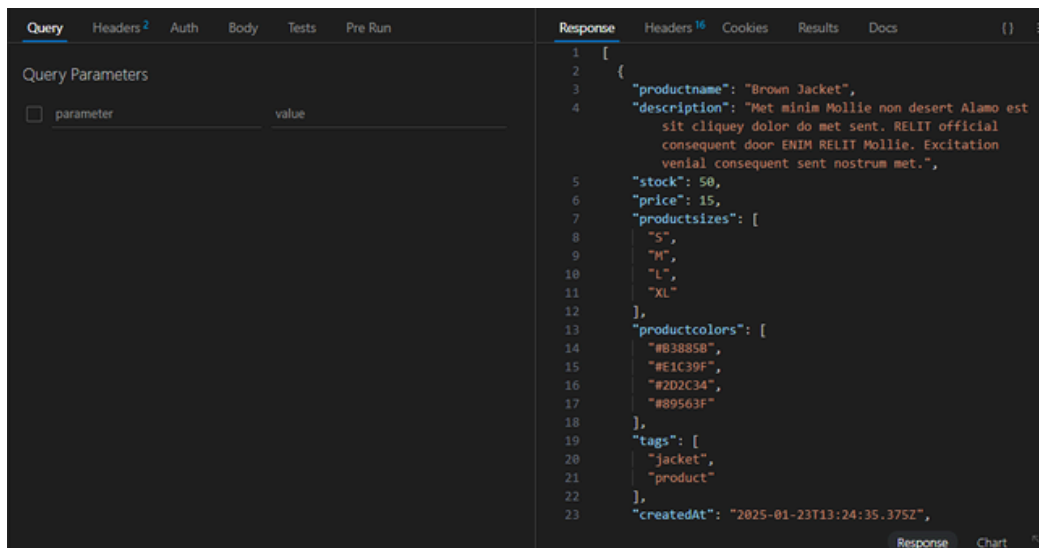# Key Section to Point Out

Functional Testing :

Here the first we must be do in E-commerce is to set our product page because that page is the backbone of every e-commerce web-application. The Product of that company must be display perfectly and here I have also included a search bar and also Filter box to Filter-out our products through category. We have to also perform Cart Operation and also show a detail page of our product. Below I have mention a screenshot of what I done.
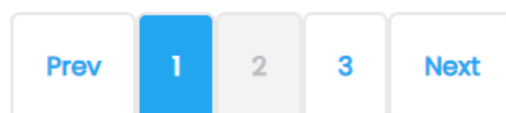
Next Task is to do is testing our API

We need to test our API because the data of all products is come from API means (Application Programming Interface). We can test that API through Thunder Client and many other testing platforms.

I Forget Something !

And that is Pagination , I have also include Pagination.

Error Handling :

When we develop something so the error will come on the board and then we have to solve it. Here is no path where error is not include. When we perform anything in the code and make some mistakes so the error will come and then we solve it the error will gone, But the Error Handling is not like that . It is like that , I am handling any API request and then error will come so then what fallback message that user can easily read and understand that what is this. In Nextjs, we many thing to handle the error like we have error.tsx file for if the error is come so then the error page will show with UI with user friendly content that user can understand.

Error.tsx

```tsx
'use client'
import ErrorPage from "@/components/ErrorPage/ErrorPage"

function Error({
    error,
    reset,
}: {
    error: Error & { digest?: string }
    reset: () => void
}) {
    return (
        <ErrorPage error={error} reset={reset}/>
    )
}

export default Error
```
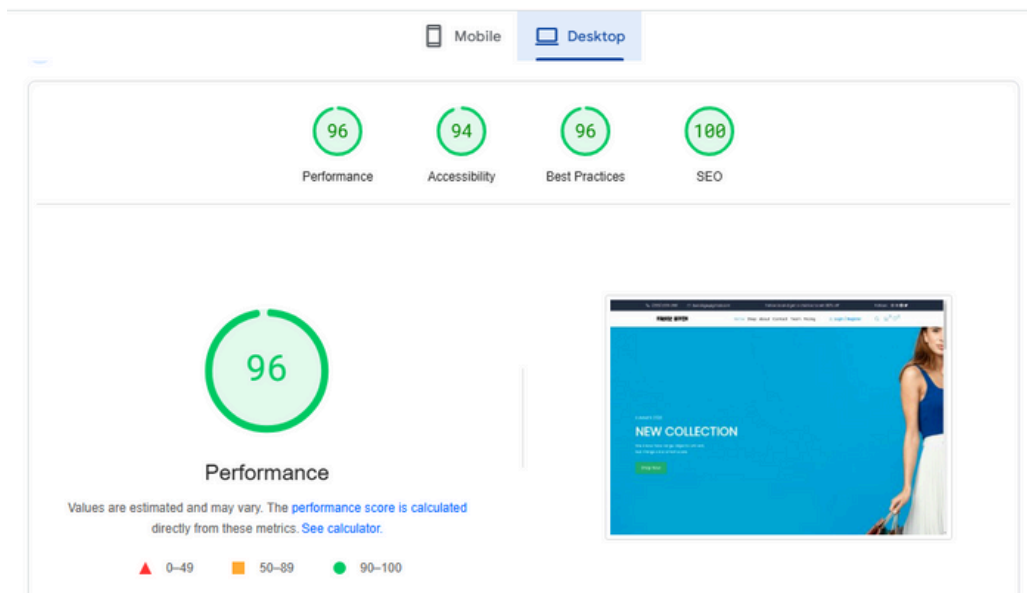
API Request

```tsx
//FETCH PRODUCT LIST
const fetchProductList : (api: string) => Promise<Product[]> = async (api:string) : Prom... => {
    try {
        const fetchProd : Response = await fetch(api,{
            method: "GET",
            headers: {
                "Content-Type": "application/json",
            },
            cache:'force-cache'
        });
        const getProd:Product[] = await fetchProd.json();
        console.log(getProd);
        return getProd;
    } catch (error) {
        throw new Error(`${error}: API Not Found`);
    }
};
```
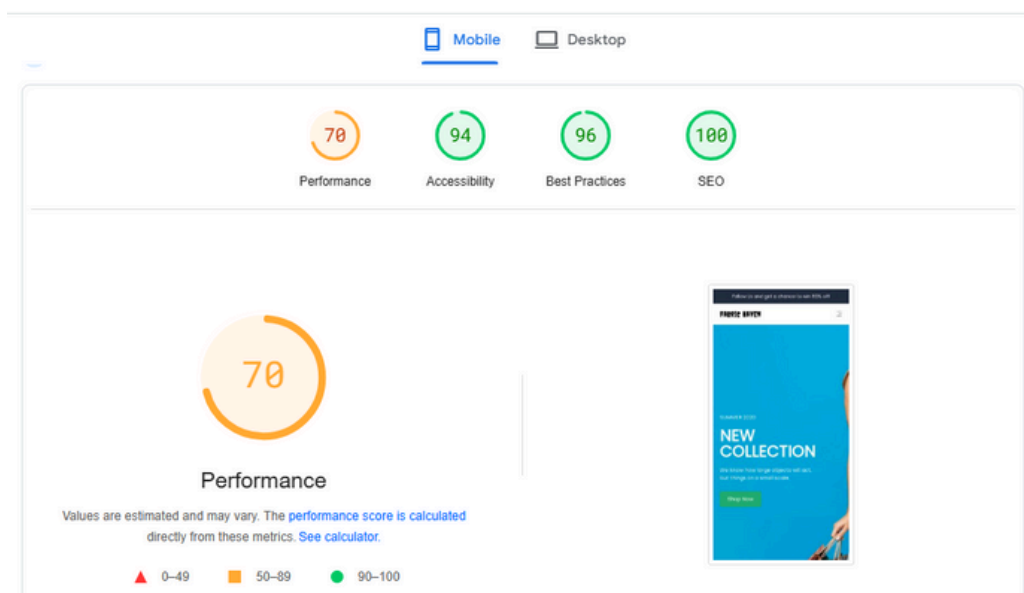
Performance Optimization :

Just Think like a CEO , An Employee of our company is doing his job , so as a CEO we have to know what the performance of that employee , so basically the performance of website is contain a matter. Let me show you desktop and mobile performance
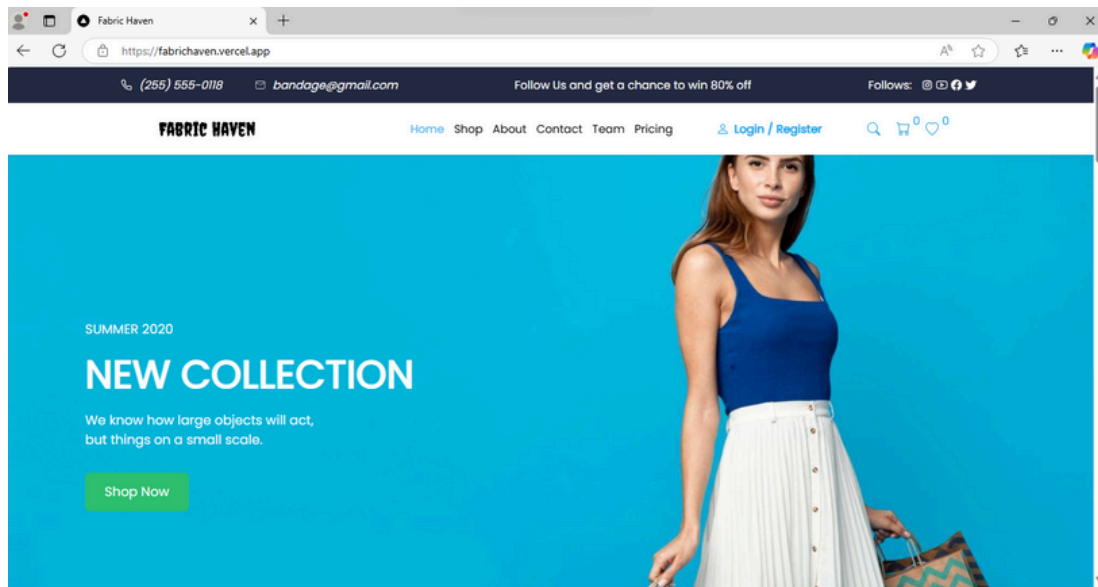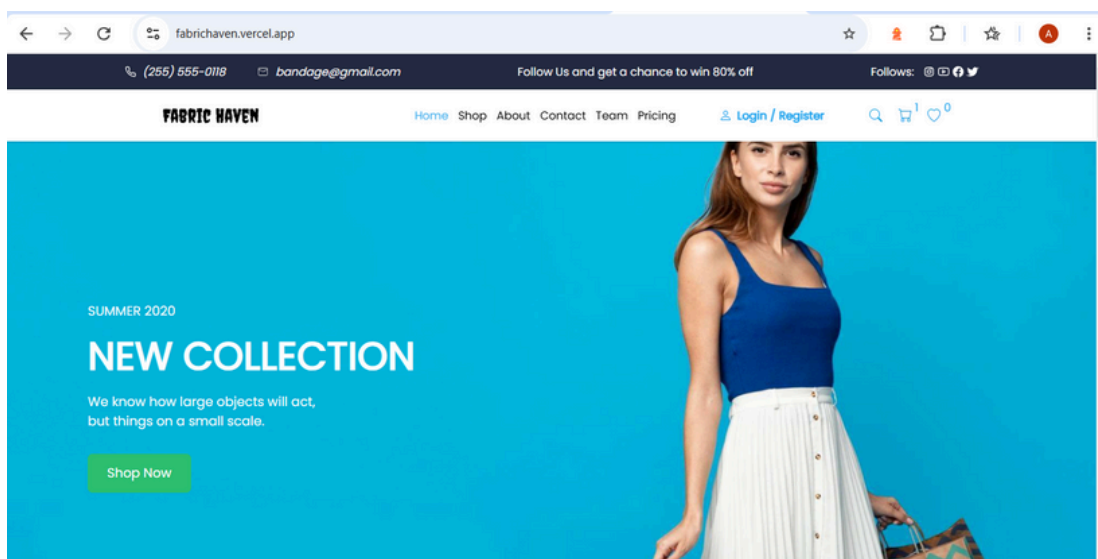
DESKTOP

MOBILE

Cross-Browser and Device Testing :

When we developed a website. We need configure that our web-application must be working on cross browser like Chrome, Firefox, Safari, Edge etc. we have to test on Edge, Chrome.
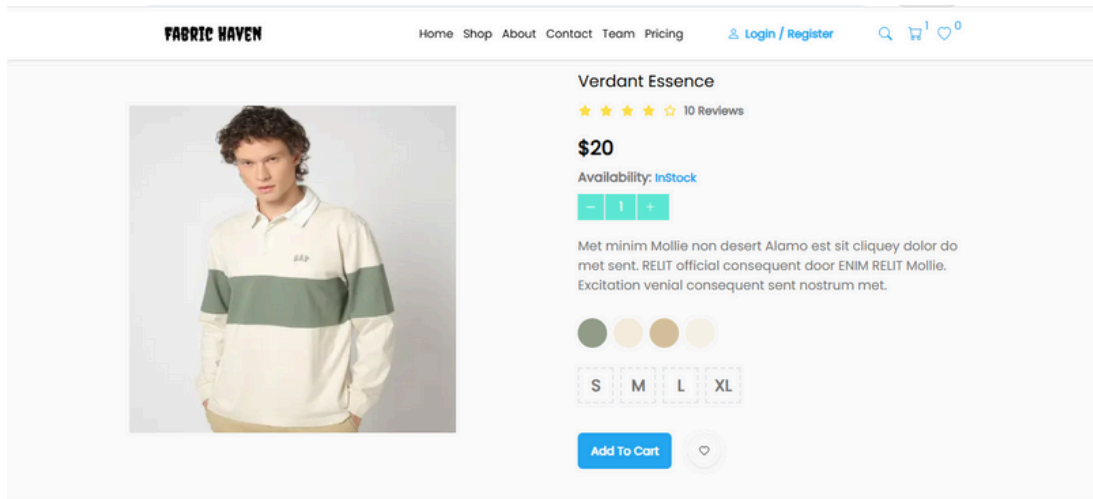
MICROSOFT EDGE

GOOGLE CHROME

That's how it's showing on Microsoft Edge and Chrome , Perfectly.

User Acceptance Testing (UAT) :

The main thing of every product is to check is yourself then go to another to check it. Once we developed a web-application so then we have to test it many time that is working perfectly or not, because when a product is build it's test many time. The web-application is also a product and it's our jod to check it many time.
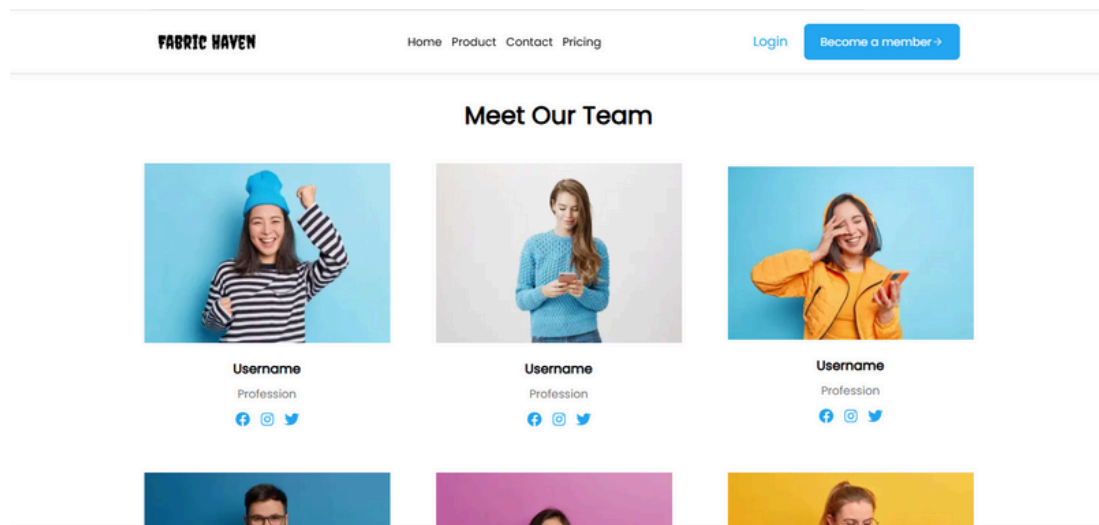

Testing Report (CSV) :

After That, we need to create a Professional documentation where is the many detail of web-application

Challenges Facing :

Facing Challenges in Program is a daily routine of a developer and here, I have also faced many challenges to setup search, functionality, filter and also on pagination and also on Error Handling and many other thing like Keys, Responsiveness, migration.

For Future :

As you know marketplace have many features what else features can I add for the Future. Here are many like connect with database, Multi Language Support and many other things.

"Ending of that document with Team Page."

Shaikh Abdul Moiz