Project Progress Report 1

AIM:
Gather correct information about the product and compare its price across different websites/retailers so that the customer can surf through good deals easily and effectively.

What we did:
Researched regarding our website growth and effectiveness in present and future. Worked on which technologies to used and which not. Started creating a Web page for our website, it's probably going to have some changes as we go on with our project, because as we will add features in it, it will require some specific place on the page.

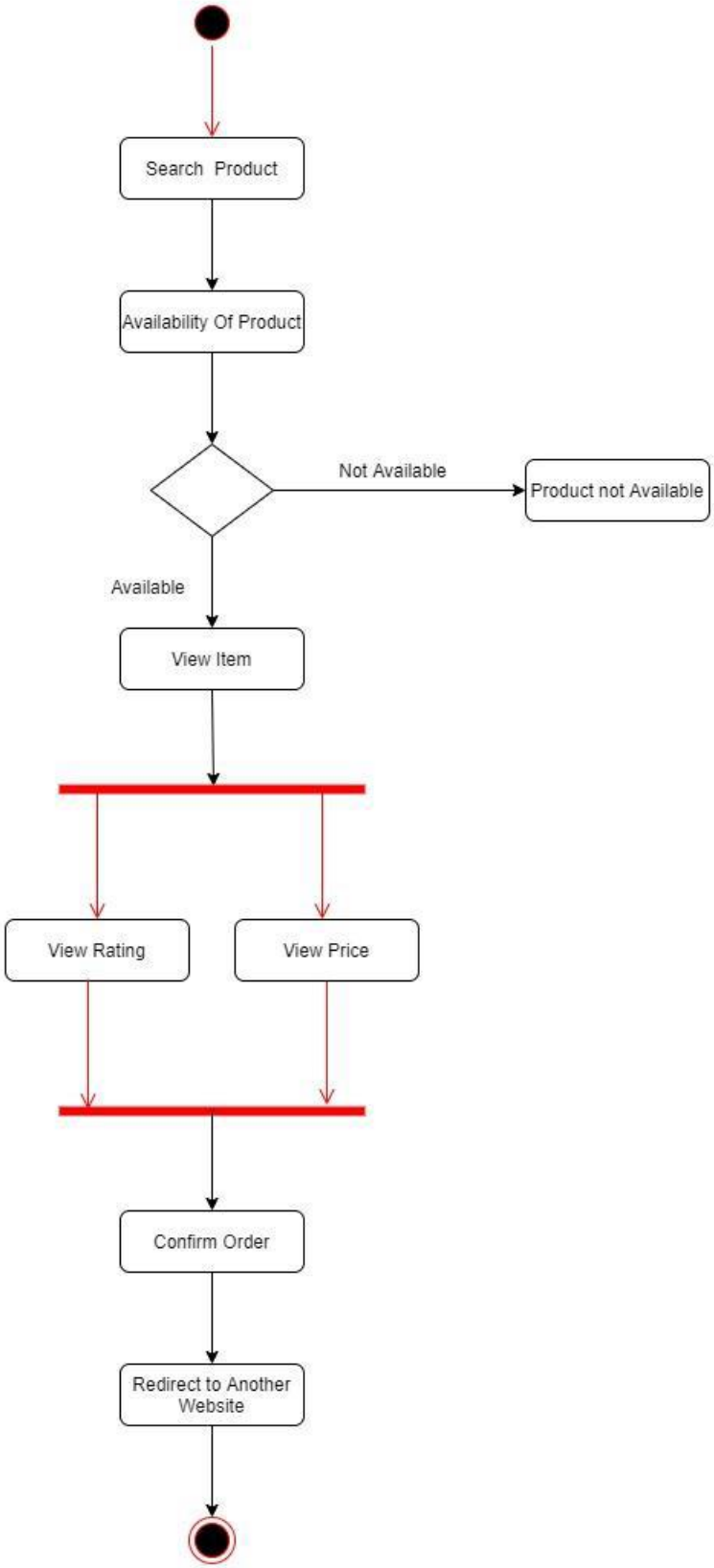
Motivation:
After doing some research on our idea, I found out some interesting facts regarding the web page which we are going to create for this project.
There are certain facts claiming that around 27.2% of world's population is shopping online, which in turn will reduce the sales from retail stores. (Our website can also include the result of retail store website if they have any).
According to various sources, on an average of 70% - 85% of people shopping online, compare prices on different websites to get the best deal on the product they are buying. [1][2][3]
**Note: All the sources are mentioned at the end*

Technologies: which and why
Angular JS for frontend. I figured out that out of many frameworks for frontend, Angular JS is mostly considered best fit for the single page application having dynamic webpage. There are various options for the frameworks which can be used for the frontend like React, Angular, Vue, etc. Having considering the conditions and requirements of our web page, I finally decided to go ahead with Angular JS. Also, the main aspects of concern to choose AngularJS is security, functionality, etc.

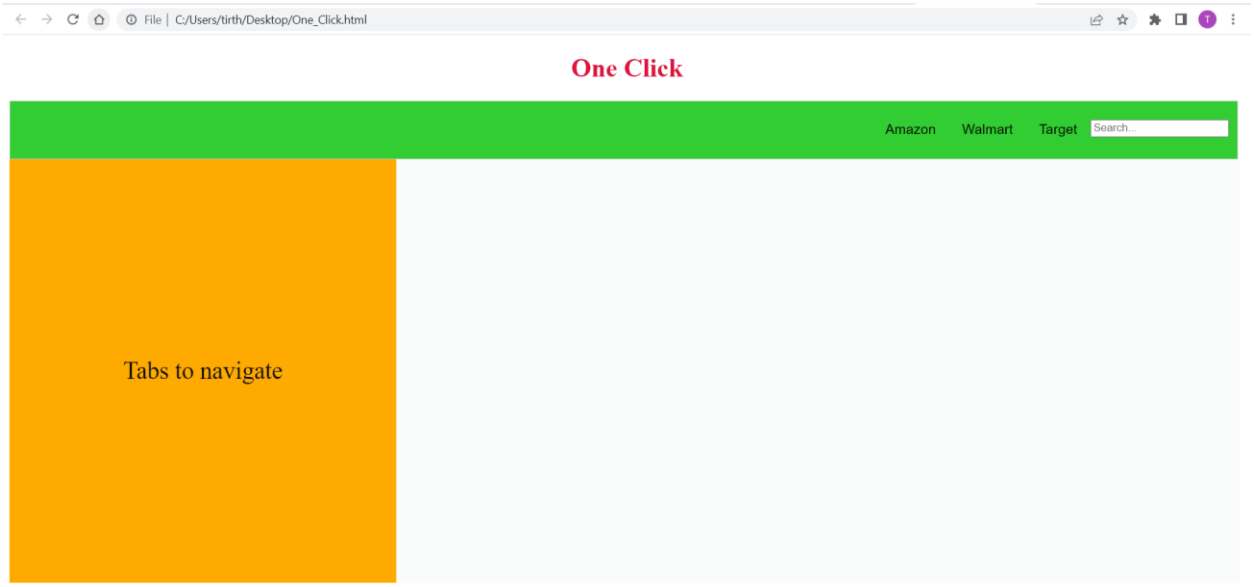
Node JS for backend:
There are many frameworks which are best for the backend, namely Django, Flask, NodeJS, etc. Out of them, I chose to move ahead with NodeJS because of its non-blocking input/output model and asynchronous programming, which are the main key functions required in our web page. It also helps with CI/CD methods in our project. Due to such reasons we as a team decided to move ahead with NodeJS in our backend.

Puppeteer:
According to the [4], Puppeteer has proved to be best among other scrapers tested among different website. Also, it has shorter scripts comparatively.

The flow diagram:



A glimpse of our webpage:



REFERENCES:

[1] https://www.fierceretail.com/digital/80-shoppers-do-online-price-comparison-before-store-shopping
[2] https://saleslion.io/ecommerce-statistics/65-percent-of-shoppers-look-up-price-comparisons-on-their-mobile-device-while-in-a-physical-store/
[3] https://www.minderest.com/blog/how-do-consumers-compare-prices-before-purchasing#:~:text=According%20to%20data%20that%20was,best%20price%20on%20the%20market
[4] https://blog.checklyhq.com/puppeteer-vs-selenium-vs-playwright-speed-comparison/