Open & Fair Online Marketplace

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Abstract.

Due to the lockdown and economic crisis during the COVID-19 epidemic, all firms selling goods encountered numerous obstacles. However, several big corporations had their own eCommerce divisions and were able to swiftly transition to a fully online manner. Other large companies with appropriate resources were able to get online as well. Micro, small, and medium-sized businesses, on the other hand, were unable to do so fast due to a lack of expertise and resources.

Online marketplaces such as Amazon, Flipkart, and others already exist.The primary issue with them is that the competition is controlled by unfair and anti-trust activities.

This is why we decided to create an open and fair online marketplace, just for MSME businesses, to assist them in moving their operations on the internet. We take care of the infrastructure and technology implementation so that the sellers may concentrate on their primary interest: their business.

1. INTRODUCTION

During the COVID-19 epidemic, all businesses were severely harmed. Big businesses that sell items already had an online eCommerce wing and were able to swiftly transition to a completely online form. Others, with sufficient finances and skills, establish their own eCommerce division. However, there was no open and fair internet marketplace for MSME businesses. Where there was no bias and equal chances were granted. Where they are not suffocated by monopolies. This is why, unlike other online marketplaces, we chose to build a platform that is open and fair, allowing anybody to sell without worrying about the technology or infrastructure required.

CURRENT ONLINE MARKETPLACES

The present marketplaces are dominated by large corporations. There is a great deal of business politics at play. Many complaints have been filed alleging that these marketplaces dominate the market and engage in anti-trust practices. There have also been concerns that their platforms favour and encourage "alpha sellers." Alpha sellers are

organisations who have a tight relationship with online marketplaces in the online retail arena. They have, on the other hand, begun to replicate best-selling goods under their own labels, such as Amazon Basic and Flipkart Smartbuy. One cannot just sell a phone at a lower price while maintaining a low profit margin. Due to business politics, that specific cell phone is exclusively sold by a few retailers. This is the most serious issue. To get a competitive advantage, these huge monopolies engage in several unethical acts.

2. COMPONENTS

Hardware:

Laptop with listed features below:

- i5 processor

- windows 10

- 8GB RAM

- 1TB ROM

- And a smart phone

Software:

- JavaScript

- HTML, CSS

- Node.js

- React.js

3. METHODOLOGY

Anyone may register and post their items in our marketplace. He'll be in charge of his own inventory.
He will catalogue his items or resale products from other manufacturers with the manufacturer's permission.
Anyone interested in purchasing things may go to the site and complete the transaction quickly.
Anyone may sell or purchase without worrying about their data, privacy, or the possibility of us replicating anything.

4. IMPLEMENTATION

For the user interfaces, we utilise React.js as our front-end framework, along with web technologies including HTML, CSS, and JavaScript. For server-side scripting, we use Node.js. Additionally, we use MongoDB for our databases. Aside from this, we use a variety of libraries such as Redux, JWT, and Mongoose. The schema for buyers, sellers, administrators, and goods has been established. Mongoose was used to model them. We've introduced role-based access, which limits each user to certain services based on their rights. Admin has the highest level of access[1].
Our cloud provider will be Amazon Web Services (AWS). We use AWS services such as AWS Ec2 and S3[2].
We also use Figma to create all of our user interfaces. Similarly, we utilise bcrypt to encrypt and salt our users' passwords.

5. FLOWCHART

If the visitor is a new user, he will register, and if he is an existing user, he will login. If he is a seller, he will be led to the seller's dashboard, where he will find all sales and income details. The seller may then add items that he wants to offer by entering product information, which will be put to the catalog. After logging in, if the user is a buyer, he will be taken to the product catalog. He can browse to find the goods he wants. He can examine the merchandise and finish the transaction.
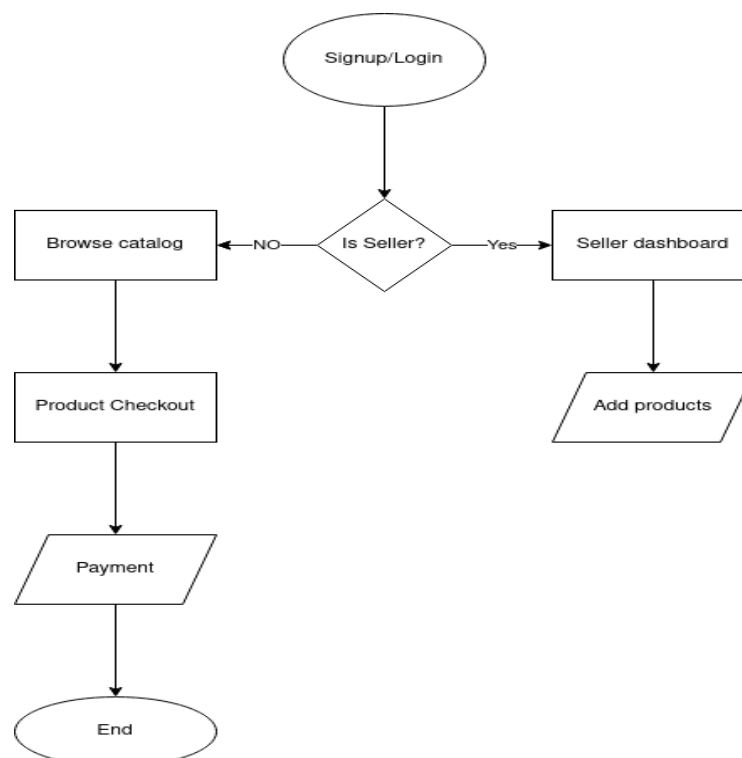
The graphic below depicts the full process:

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Fig 5: flow chart represents the workflow of the application.

6.   CONCLUSION

The platform was created to assist MSME businesses in succeeding by providing an open and fair online marketplace. We handle the hard work of setting up the eCommerce platform for them by constructing the essential infrastructure and technology, allowing them to concentrate on their core business.

7.   ACKNOWLEDGMENT

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