

Swipe Shop



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Swipe Shop

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Declaration

We declare that the work contained in this thesis is our own, except where explicitly stated otherwise. In addition, this work has not been submitted to obtain another degree or professional qualification.

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Dedicated to Allah Almighty for His blessings and benevolence. We would also like to dedicate this Final Year Project to our supportive families, and friends who stood by us in times of need.

Contents

Acknowledgments	iii
List of Figures	viii
List of Tables	x
Abbreviations	xi
Abstract	xii
1 Introduction	1
1.1 Background	1
1.2 Introduction	1
1.3 Overview of our Project	2
1.4 Problem Statement	3
1.5 Motivation	3
1.6 Objectives of the Project	3
1.6.1 Industry Objectives	3
1.6.2 Academic Objectives	3
1.6.3 Research Objectives	4
1.7 Scope of the Project	4
1.8 Target Audience	4
1.9 Challenges and Limitations	4
2 Literature and Prior Work	5
2.1 Advantages	5
2.1.1 Enhance Convenience	5
2.1.2 Fairest Prices	6
2.1.3 Customer Reach	6
2.1.4 Ability to sell different products	6
2.1.5 Faster Buying Process	7
2.1.6 Available 24×7	7
2.1.7 Detailed Product Information	7
2.2 Dis-advantages	7
2.2.1 Poor Quality Product	7
2.2.1.1 Internet Scammers	8

2.2.2	Delivery can be delayed	8
2.2.3	Fast Changing Business Environment	8
2.2.4	No Guarantee	8
2.2.5	Depersonalize Shopping Experience	8
2.3	Improvements	8
2.4	Prior Work	9
2.4.1	Comparison Table	9
2.4.2	Daraz	9
2.4.3	Amazon	10
2.4.4	Alibaba	10
2.4.5	Walmart	11
3	Future Work	12
4	Design and Architecture	13
4.1	Use Case Diagrams	13
4.1.1	User	13
4.1.2	Login	14
4.1.3	Payment	14
4.2	Data Flow Diagrams	16
4.2.1	0 Level Data Flow Diagram	16
4.2.2	1st Level Data Flow Diagram(Admin side)	17
4.2.3	2nd Level Data Flow Diagram(Admin Side)-Login(1.0)	17
4.2.4	2nd Level Data Flow Diagram(Admin Side)-Manage item(2.0)	19
4.2.5	2nd Level Data Flow Diagram(Admin Side)-Manage order(3.0)	19
4.2.6	2nd Level Data Flow Diagram(Admin Side)-Manage Re-ports(4.0)	20
4.3	1st Level Data Flow Diagram(Customer Side)	21
4.3.1	2nd Level Data Flow Diagram(Customer Side)-Search(1.0)	22
4.3.2	2nd Level Data Flow Diagram(Customer Side)-Registration(2.0)	23
4.3.3	2nd Level DFD(Customer Side)-Login(3.0)	23
4.3.4	2nd Level Data Flow Diagram(Customer Side)-Purchase(4.0)	24
4.4	Entity Relation Diagram	26
4.5	Database Diagram	27
4.6	Sequence Diagram	28
4.7	Architecture Diagram	30
5	Implementation and Deployment Details	32
5.1	Implementation	32
5.1.1	React Application	32
5.1.2	Web API	33
5.1.2.1	End Points	34
5.1.2.2	Database	34
5.1.3	Technology Used	35
5.1.4	System Requirements	35

List of Figures

4.1	User	14
4.2	Payment	15
4.3	Login , Register , Forgot Password	15
4.4	Use Case Diagram	16
4.5	0 Level Data Flow Diagram	17
4.6	1st level Admin Side	18
4.7	2nd level Admin Side Login	18
4.8	2nd level Admin Manage Items	19
4.9	2nd level Admin Manage Order	20
4.10	2nd level Admin Manage Reports	21
4.11	1st Level Customer	22
4.12	2nd Level Customer Search	23
4.13	2nd Level Customer Registration	24
4.14	2nd Level Customer Login	25
4.15	2nd Level Customer Purchase	25
4.16	Entity Relationship Diagram	26
4.17	Database Diagram	27
4.18	Sequence Diagram 1	28
4.19	Sequence Diagram 2	29
4.20	Architecture Diagram 1	30
4.21	Architecture Diagram 2	31
5.1	API	34
5.2	Azure Dashboard	38
5.3	SaaS Pass IaaS [1]	38
5.4	VM Panel	39
5.5	Logged in	40
5.6	Active Services	41
5.7	Mongo DB Compass	41
5.8	Nimble Streamer Dashboard	42
5.9	API Response	43
6.1	Figure 1	44
6.2	Figure 2	45
6.3	Figure 3	45
6.4	Figure 4	46

6.5	Figure 5	46
6.6	Figure 6	47
6.7	Figure 7	47
6.8	Figure 8	48
6.9	Figure 9	48
6.10	Figure 10	49
6.11	Figure 11	49
6.12	Figure 12	50
6.13	Figure 13	50
6.14	Figure 14	51
6.15	Figure 15	51
6.16	Figure 16	52
6.17	Figure 17	53

List of Tables

2.1	Comparison Table	9
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Abbreviations

API **A**pplication **P**rogramming **I**nterface

DFD **D**ata **F**low **D**igram

Abstract

Swipe Shop is an e-commerce platform that would reduce the gap of trust between buyers and sellers and would build a sense of excitement among the users through our appealing user interfaces. Swipe Shop provide sellers to list products in 360 degree live product advertisement that would surely bring transparency among the system. Easy payment gateways would reduce the buyers hurdles for the payment processes according to their conveniences. Analysis for the products for the seller would make it easy for him / her to run the store and this would also open the gate for the illiterate business men to smoothly run their businesses through visualizations as well.

Chapter 1

Introduction

1.1 Background

Internet has changed our way of living and handling with the things. One of these is the shopping experience. E-commerce industry is one of the largest industries in the world. It involves the millions of people attached to it directly or indirectly. It is growing rapidly and in the past decades there has been an exponential increase in its significance. According to the reports, the largest global market share of E-commerce was in year of 2020. This share was \$ 10,361B [2] which is itself a huge contribution by the E-commerce. The internet users are using this opportunity for the convenience and a large number of online users prefer to use online shopping instead of going to marketplaces to shop. Eventually, the e-commerce and its trends have impacts on all the world markets and Pakistan is one of the emerging markets. Pakistan imports and exports goods in the world. It has adopted the this way of shopping and commerce. As we study the past trends of the E-commerce growth in Pakistan, they show that there has been an tremendous increase in total purchases using Digital and Cash on Delivery Methods in the last few years. The total purchases of Pakistan in 2016 including both methods were 41.3 Billion Pakistani Rupees which in 2020 increased to the total of 158 Billion Pakistani Rupees [3]. This growth shows that the local market is adopting the global trends and using the modern methods and technologies. To compete with the local traditional market and its trends, e-commerce industry is still in progress and has many more to come.

1.2 Introduction

Although E-commerce industry is growing at a rapid rate but still a large number of Pakistani citizens are hesitant of this mode of shopping and a key factor in their

hesitancy is lack of trust. How many time have you ordered something else and got something completely opposite? If we could devise an idea to eradicate ,or at- least minimize this gap of trust it would help Pakistani marketplace to move a step

further. According to research conducted by Varsha.

The image factor and the social and hedonic factors each significantly influence the feel-good factor. Most people prefer window shopping on online shopping because in window shopping shopkeeper explains the product and buyer can ask any question. All these features are lacking in online shopping. [4]

On the other hand if we see the market trends, Sellers nowadays, showcase their products in live videos on different social media platforms. But social media lacks specific tools for e-commerce, So our primary proposal is to provide a platform which allows sellers to display their products with satisfactory commentary and have all the facilitation they require for processing orders. And apart from selling and purchasing, some other factors that influence the marketplace like product analysis will be provided all at one place.

1.3 Overview of our Project

An e-commerce hub to provide all at once platform for business purposes whether it's seller or buyer, buying and selling has never been this easy. Through our platform we can minimize the lack of trust the customers have before buying something online, and we know this generation of people love swiping through the screen. So, our app would provide that swiping feel to the users.

SWIPE THROUGH THE FEED AND BUY WHAT YOU NEED !

Also as long as customer won't be satisfied with the product on receiving, the amount won't be deducted from his account and will be rebound. Also, on sellers side, some product data analysis Contents 2 would be provided to check out the trends on what's hot selling which could help in choosing what to sell. The main idea of our project is to develop an platform where we could provide the online users with the ease of access. We also intend to solve the existing problems in the currently available Apps and other social media platforms which are being used in the online shopping and other e-commerce related tasks. Our goal is to maximize the experience of users and enable to easily perform their required actions through our platform. We will look into its brief details in the next chapters.

1.4 Problem Statement

As we are moving deep into the digital world and the world of pandemics, online resources have become the necessity for maintaining a modern lifestyle. But there comes a trust issue for the customers all the time as they order something seeing the image but they get something else. and seeing from the sellers side, making a shop online should be as easy as it should be easy to buy things. Hence to eradicate both the sellers and buyers issue, we are proposing a platform that would make life easy for both buyers and sellers.

1.5 Motivation

We are proposing to merge different modules under single umbrella. We will try to add various functionalities like live video advertisements for transparency and swiping through the feed would make it easy and interesting for users to shop. We will try to provide data analysis where we could provide analysis on various products as which product putting market on fire and we can predict future insights over various products. Apart from these, we will try to make our project as much user friendly as we can and as much filled with services that user does not have to go to any-other platform for business purposes as we will try to provide all under one platform.

1.6 Objectives of the Project

1.6.1 Industry Objectives

The e-commerce industry is evolving so rapidly that to keep up with it, it demands regular maintenance and road to evolve as much as for the future. The giants of this industry such as Daraz and amazon are also regular evolving and to keep the cycle of revolution running, they are hiring more and more employees day by day. Even in our country some software houses are managing the resources of such platforms. Since our platform will cover most of the pillars to build an e-commerce hub, hence, our project will have much potential to get place in this busy-day industry.

1.6.2 Academic Objectives

As we know, this project is a pure development based project, hence, it will help us greatly to polish our skills. Moreover, this project is an industrial standard project with many a numbers of modules so along with development skills, it will help us to improve our time management skills and we could understand the type

of pressure we gonna face when we will step into the industry in near future. Our level of confidence will surely raise and we could learn many technical and non-technical skills that we could not have with smaller level of projects.

1.6.3 Research Objectives

Our platform contains analytic of data that is a research base work in which we use ML to generate analytic. The available in market ,now a days ,have not analytical features and representation. Our application will provide these Additional features and improved User Interface.

1.7 Scope of the Project

We will be providing with the 360 degree video listing in the app and customers will be able to evaluate the product quality. On the seller side , we are providing with the analytic of sales and trending purchases. For technical assistance and help , there will be a chat bot support. In future , we will be adding the live tracking feature.

1.8 Target Audience

- All the businessman community who wants to build an online shop and wanna sell their products.
- All the people who want to do shopping at the comfort of their home.
- Researchers who want to get a peek over the trends in the market.
- People who just wants to visit the platform to just do online kind of window shopping.

1.9 Challenges and Limitations

The few difficulties which we faced during the development of this project will be Bandwidth Limitations, hosting issues. Apart from this,time management was another important challenge because with academic workload it was a tough challenge.

Chapter 2

Literature and Prior Work

In e-commerce ‘E’ means electronic and commerce means buying and selling goods or services. E commerce means to carry out business transactions over the Internet. This type of trade has also the all aspects of business like buying selling and payment etc. There is also no physical contact between buyer and the seller because all trade is done online or over the Internet. E commerce adopts best use of technology to meet the demands of the customers or the users.

2.1 Advantages

2.1.1 Enhance Convenience

The first most advantage and benefit of ecommerce is that it increases or enhance the convenience or comfort for the sellers and the buyers. The sellers have not to go outside or to face difficulties to sale out their products. They also not have to face hard Impressions of the customers to sell their products. They just put their products videos and images on the website to sell them. On the other hand if we see the customer side, they also not have to go outside and face hardships to purchase items. If the weather conditions are severe. They also not have to go outside. And bear the severe conditions of the weather, they can just order it over the internet via ecommerce website and can have their wishing or desiring product easily. Also, in a way that if the customer or the seller both have an urgent piece of work to do at home and they have not sufficient time to go outside to sell their product or purchase the desiring product, they can also sell it out or purchase the product over the ecommerce website. If the seller or the customer are ill or they are suffering from a disease or fever. They don’t have to go outside to purchase or sell their product. They can easily have their product or have their aim fulfilled on the ecommerce website. If the customer or the seller is disabled then they have

not to go outside to sell or purchase the product and becoming a burden on the others to take them out to sell or purchase the product they can just visit the E commerce website over the Internet and can have purchase or sell the products they want.

2.1.2 Fairest Prices

The benefit of E commerce site is also dead there are fair prices over the ecommerce website or application. There are also discounts or offers available on this website or this online platform. This also provides the prices which are low and payable by the poor sector of the public. We can say that the prices are also fair on this website and this also provide convenience and comfort to the sellers and their customers. These online platforms or E commerce websites also attract their customers or their users by having some lucky draws to facilitate their customers. They also offer some up to discounts or flat discounts to facilitate their customers. These online platforms or ecommerce websites also offer some vouchers and membership cards to their customers to facilitate them and engaging those more and more with the E commerce website to enhance the convenience or comfort to their customers or to facilitate them with fairest prices. These online players' platforms or any concept is also open cash back facility to their customers also they facilitate the customer regarding failures prices by sending the items or products ordered by customers as free home delivery.

2.1.3 Customer Reach

Customer reached means these online platforms or websites are also reaching their customers or the people by using some social media links or some good it's search engine or by having some interaction or live sessions with the people. They are also engaging with the customers or the people through Instagram or some Facebook videos. They are also offering some customized prizes or gifts on this social media platforms to enhance their customers or users. They also help people to learn new technology.

2.1.4 Ability to sell different products

E commerce websites or online portals for selling and purchasing also enables their customers to sell different types of products over this platform. They can sell more and more products over this platform. If they have to sell more and more products physically then they are be more in trouble to sell these products at one place. Because they cannot manage it lonely to take all the things they want to sale, to carry them at the place where they have to sell them. So these

e-commerce websites or online portals for shopping have made it easy to sell more and more items at one platform. Also there is flexibility in e-commerce websites in the meaning that if the product is not selling at profit then we can stop to sell it on this platform.

2.1.5 Faster Buying Process

E commerce is a faster buying process in the sense that if you are busy at your workplace or if you are not able to go to the market or if you are disabled or you are suffering from a disease then it is a good platform to sale or purchase the items you want easily on the E commerce websites. You can sale or purchase the different items, goods or products just by one click on your phone.

2.1.6 Available 24×7

The one most important benefit of E commerce website is that it provides its services 24 by 7. If you are busy at the daytime and you have no sufficient time to go to the bazaar or market to purchase the things items products or the goods you need then it is very difficult for you to purchase them. You will be free at the night time and at that time the bazaar or markets will be closed. Now since, E commerce websites provide 24 by 7 service so it will help you to purchase or sale your required products on the E commerce websites easily.

2.1.7 Detailed Product Information

The advantage of ecommerce website is that there is a detailed information about the product you want to purchase. While on the other hand this type of detailed information is not provided by markets or in the bazaar. • EFT (Electronic Funds Transfer) In online shopping you can pay the prices of the products through your bank accounts.

2.2 Dis-advantages

Everything has its advantages as well as disadvantages. So ecommerce websites also have their disadvantages due to which they losing their standards.

2.2.1 Poor Quality Product

It is the disadvantage of ecommerce websites that the sellers also sold the products which are low in quality. It is a disadvantage of ecommerce websites due to which these e-commerce websites are losing their confidence in the public. The scammers also sell their some defective or the products which are below the standards.

2.2.1.1 Internet Scammers

Some Internet scammers also use these websites wrongly. They can steal the personal or private information of the customers or the sellers from these websites and they can tease them by sending their message that they have won the car or their debit card is going to be expired and they need the basic information about the debit card or bank account.

2.2.2 Delivery can be delayed

Sometimes the delivery of the goods products or items can be delayed by these websites due to some reasons. As you have ordered on these websites so that you can have the product soon but due to some reason this delivery get late and you can suffer from a loss. So this is also the disadvantage of these ecommerce websites to some extent.

2.2.3 Fast Changing Business Environment

As e-commerce websites are a quick move from physical marketing or shopping to online shopping so, many entrepreneurs take it hard to cope with new technologies because it is a fast changing business environment and most of the people have no well introduction with technology so it is difficult to some extent for illiterate people.

2.2.4 No Guarantee

Mostly e-commerce websites does not provide any guarantee or warranty of the products sold at this platform so it is also a weak point of these portals that if the product is defective or have some flaws in it then the customer will face loss and he will be discouraged and will not move to the ecommerce website next time most probably.

2.2.5 Depersonalize Shopping Experience

There is lack of personal relations or interaction between the customers and the sellers. In physical shopping they can interact with each other and can have build confidence with each other. If the product is not good or below the standards, the customer can visit the seller and can return the product and have a new one with good quality, back from him.

2.3 Improvements

There can be some improvements that can be made in e-commerce platform. The companies should interact with their customers through emails and other social

media platforms. Enhance engagement by sending thanking emails or thank you cards to their customers. Send back gifts to their most loyal customers like mugs or key chains which will enhance the reputation. E-mails and social media are two important channels through which you build a community and asked them to leave reviews and rating on your products page. Develop your brand awareness. This awareness can be made by quality. Make sure the good quality of your product. Made up-sell and cross-sell. Up-sell means offer customers the alternate products for the products they are looking for. Cross-sell means offer them the supplements of the products they are purchasing. Close selling the items that are moving slowly. Change the place of the slow moving items. Add live chat and phone numbers so that customers can interact freely with sellers and show their concerns to them. Provide free shipping facility if not offering.

2.4 Prior Work

Some of the most popular E-commerce platforms detailed description is discussed below.

2.4.1 Comparison Table

TABLE 2.1: Comparison Table

App	Live Video	Chat Bot	Analytical Tools	Product Approval	Live Tracking
Daraz [5]	×	✓	✓	×	✓
Telemart[6]	×	✓	×	×	×
Amazon[7]	×	✓	✓	✓	✓
AliExpress[8]	×	✓	✓	×	✓
eBay[9]	×	✓	✓	v	✓
Walmart[10]	×	✓	✓	×	×
Flipkart[11]	×	✓	✓	×	×
Lazada[12]	×	✓	✓	×	×
Swipe Shop	✓	✓	✓	✓	✓

2.4.2 Daraz

Daraz is basically an e-commerce platform Started earlier in Pakistan. Later on it expands to the country like Sri Lanka, Bangladesh, Nepal and Myanmar. This site is also becoming famous in Nepal. It is covering about the 500 million of the total population of the countries in which it is doing work. It is most famous, popular and well known in South Asia. It was opened to provide services in 2012. Accountability is the advantage of using the Daraz. If a package is entered in Daraz then it is safe and if it is facing some lost then this loss will be compensated

and fulfilled by Daraz. Daraz makes payments to all the sellers within 15 days after collecting all that revenue. Daraz help poor sellers to start from little investment. All the policies of Daraz are very clear and transparent. There is no need of shipment provider in Daraz. It offers some designated hubs which work for it. Here are some dis-advantages of Daraz. You must have to constantly update the stock and if you are not available at the time of order, Daraz can cancel your investment, can make some fine or penalty because this cause falling the rating of platform. It also not allow some products to sell like religious things (books etc.). It has put a huge commission rate which is making it less profitable business at Daraz.

2.4.3 Amazon

It is also an internet based enterprise that is an e-commerce website. It was established basically to sell books but later on it is selling all necessary things like house hold things, music/songs and films related items. It has now become a big, large and a huge online shopping and business platform. It was opened to provide services in 1995. It is the second most well-known platform in America. It has built in the trust of customers on it. Its users have much trust on it even if they know that the third person is selling in it. It has gained the trust of customers due to its services, website functionalities and its policies. The functionality of Amazon website is very easy. it has very separate portions on the website for customers for items category and shipment and prices. It has described the rules and operations in detail. There are much sellers on the Amazon so that's why there is always a competition on Amazon between the sellers and this competition causes the prices of the products to be low. This low price is much helpful for the customers and they have trust on Amazon. Although Amazon is charging fees to the sellers. The rules and regulations on the Amazon are very strict. Amazon also provides its customer the facility of advertisement for their products. The disadvantages of Amazon is that it charge is high for the advertisement of the products. It also has many strict rules and regulations for the customers and the sellers. There is also a very high competition inside the Amazon because there are many sellers inside the Amazon and the competition is very high which is causing less profitability.

2.4.4 Alibaba

It was established to provide services in 1999. This online shopping portal or platform belongs to China. It is the most well known, familiar and popular e-commerce or online shopping platform in the world. It has dominated about

eighty percent online shopping market of China and growing further. Alibaba is the world most large and vast e-commerce platform for online shopping. It is also bigger than Amazon. As it is a large platform so, much market is hold by Alibaba. Alibaba's most revenue and income comes from advertisement. In contrast of Amazon, Alibaba does not sold items or products directly but it has some third party sellers linked between Alibaba and customers. Alibaba has dominated about eighty percent market of China and now it is going to expand in US and Europe also. Alibaba does not allow foreign companies or foreign investors to invest in Alibaba. It does only allow to the residents or citizens of the Chinese people to invest or share in Alibaba e-commerce platform. Accountability boards cannot take audit of the Chinese companies without the permission or consent of the Chinese government. Better Business Bureau awarded rating "F" to Alibaba and AliExpress due to not responding against complaints raised on it.

2.4.5 Walmart

Walmart was founded in America in 1962 as e-commerce retailer platform. It is now the second biggest online shopping platform in America. Its founder was Sam Walton. Its headquarters are located in different cities of US. The advantage of Walmart is that it has 1130 physical stores in whole US. It is working in 28 countries. 90 percent of Americans have a Walmart within 10 miles. 140 million people shop at Walmart every week on the average. It provides a great opportunities of jobs to a huge number of employees. The disadvantage of selling on Walmart is that the Walmart forces to sell products on a very low price which causes in less profit margins which is not accepted by sellers on Walmart. The one reason for being hated off is that due to its low prices the local shops are not in position to compete with Walmart. The wages of the employees are also very low. it also does not offer health insurance to its employees. Walmart has large racism and gender discrimination which is causing to be hatted. Unpredictable schedules are also the big problem of the Walmart. It can call its employees at any time in the day for some hours to do their duty. It is also very difficult for employees to meet that timing. Poor management techniques are also one of the failures of Walmart.

Chapter 3

Future Work

We have deployed our application on Azure server for both seller and buyer sides. The app and web version is fully functional but there are some of the features that would enhance the user experience which would include the data analysis portion that we are working on currently but it would take some time to do so, hence it is one of our major goals in future to provide full fledged analysis over the products and market trends that would surely enhance the user experience to reach his / her excitement level to the skies. Apart from that, we would like to add some more payment gateways in our future goals for the convenience of our users as we know different people opt for different gateways so for that particular reason we would like to increase our number of gateways in the future. We are also trying to bring the ranking system in our app through which we would rank among the sellers and their stores with top selling seller and store to be ranked among the best. Many algorithms and hard work and time management would be required to put into this work to make it happen so it is also one of our major goals for future as well.

Chapter 4

Design and Architecture

4.1 Use Case Diagrams

A use case diagram shows the interaction between the system and software. It explains how the relationship between user and different case scenarios of a system. It also tells the scope of the system. Elements of use case are

- Actor (Any person, organization or anything which is interacting with system)
- Use case (The functionality provided by the system)
- Association (It is a simple line showing interaction between user and system)

In our system, first use case diagram is overall and brief diagram showing relation between user and system. It is showing that user or customer can first of all login if it is existing user. It can change password or reset password in case of forgotten or for security purpose. If the user is new he/she have to register first. User can view products. User can place or make order. User can track his/her order. User can view updates or cancel his or her orders. Users can make payments via online system or cash. On the other side the admin can also log in to the system. The admin can register himself or it can also reset his or her password. Admin can view orders, view customers. Admin can also add update delete or products admin have access to sales statistics admin has also authority to generate reports. Admin can also view or update the stocks available.

4.1.1 User

We can also make a separate use case diagram for user . A user can be a new user or existing user. . Because there is different behavior of software for new users or

existing users. New user have to first register his or himself on the software while on the other hand existing user can just login to the software to have access on the software. Existing user can also reset his password if he/she has forgotten or there is some security issues while new users don't have this opportunity because first of all he or she have to register himself/herself on the system.

4.1.2 Login

There is also a separate use case diagram for login register or forgot password. Logan can further be divided into verify credentials show, wrong message password , register , forgot or reset password. There is `include` relationship between Login and verified credentials. There is extend relationship between login and show wrong message password. There is also extend relationship between login and register. There is also `extend` relationship between login and forgot or reset password. Now adding to it, existing user have include relationship with verified credentials. Existing user also have extend relationship with show wrong password message and forgot or reset password. New user have include relationship with register.

4.1.3 Payment

We have also a separate short use case diagram for make payment. Users can make payment buy online method or by cash.

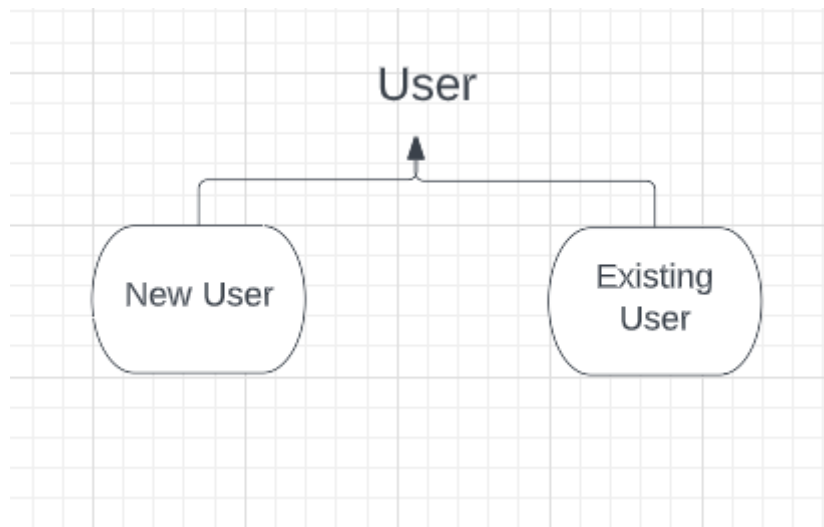


FIGURE 4.1: User

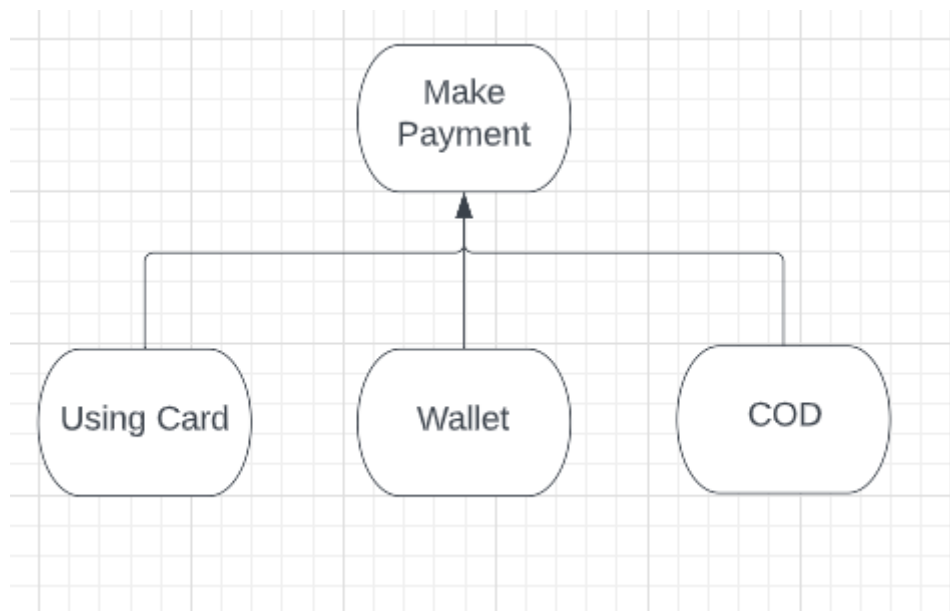


FIGURE 4.2: Payment

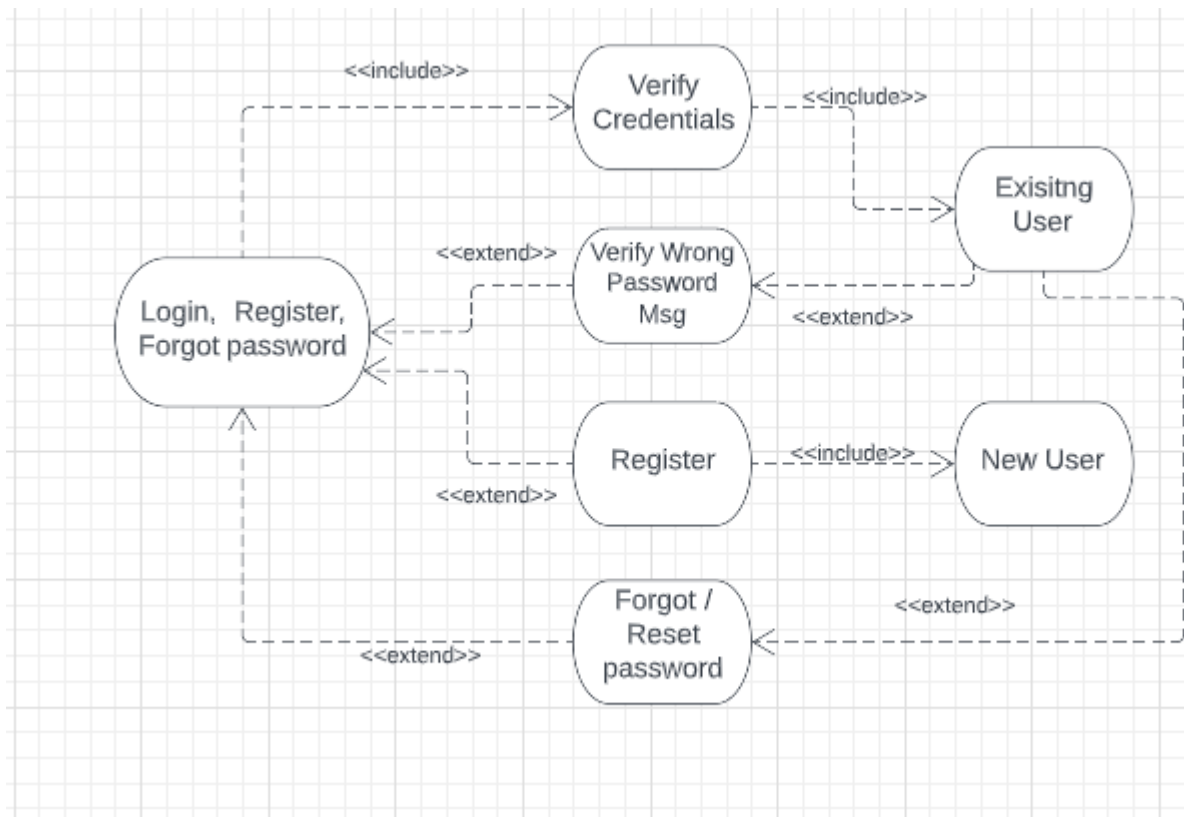


FIGURE 4.3: Login , Register , Forgot Password

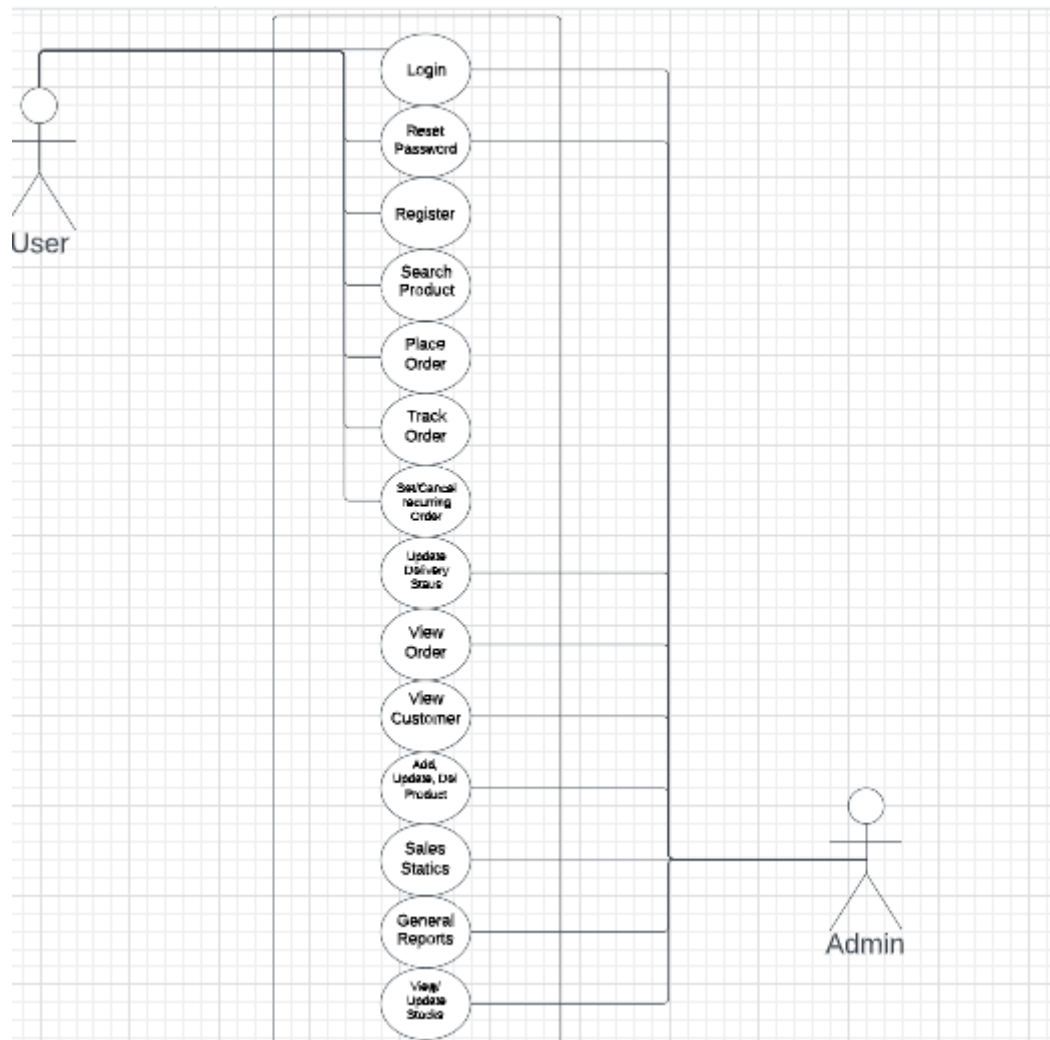


FIGURE 4.4: Use Case Diagram

4.2 Data Flow Diagrams

Data flow diagram old dog is a graphical representation of the data showing the flow of data in a system. It is also known as bubble chart. It shows the processing of data in terms of input and output. By having a look on data flow diagram we can completely understand the working of system. There are different levels of data flow diagrams. We have used data flow diagrams of level 0, 1 and 2 in our system.

4.2.1 0 Level Data Flow Diagram

Zero level Data flow Diagram just shows the major functioning of a system. It describes that there is an online portal to which admin or user can interact with this online portal in different ways.

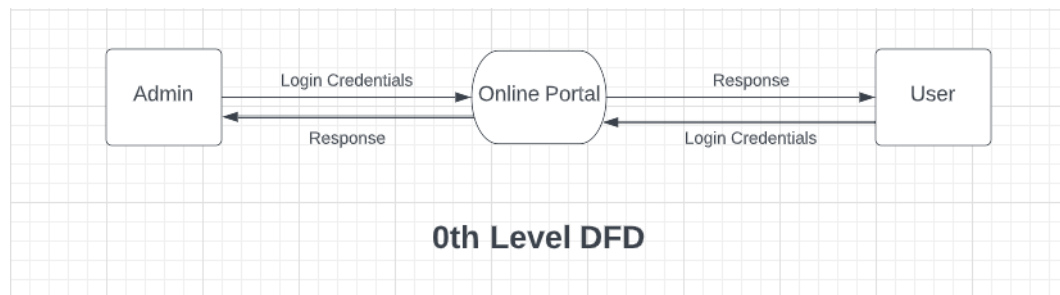


FIGURE 4.5: 0 Level Data Flow Diagram

4.2.2 1st Level Data Flow Diagram(Admin side)

First level of admin side explains that admin have the following options to do. First of all login, manage item, manage orders and manage reports. The first process admin have to do is login then he enters the data to login these credentials are verified or checked by admin detail database. The. The next process admin do is to manage items. In this process the admin can manage items, in the sense that he can update the quantity or price of the items. When the admin change the quantity or price of the products or items these updates are stored in the item list of the database. The third process admin do is manage orders. In this process the admin view the orders made by the customers and notice that how much quantity is ordered then he add these orders in the order details of the database. The last process admin do is manage reports. The admin generates or view the reports for items ordered or for the users and these reports are added in database.

4.2.3 2nd Level Data Flow Diagram(Admin Side)-Login(1.0)

The second level Data flow diagram of Login is to show that the processes we have to do in login is to manage username, manage password, manage login and change password management. In username management the system verifies that the username is unique and nobody has taken the username already. In password management the system make sure that the password is strong and good. In login management the system verify the credentials provided by the customer or the user. In change password management the system offers the customer to change the password if he had forgotten the password or if he/she had to change for some security issues. The more process done in Login are to generate user detail report, log in detail report, register report, and change password report.

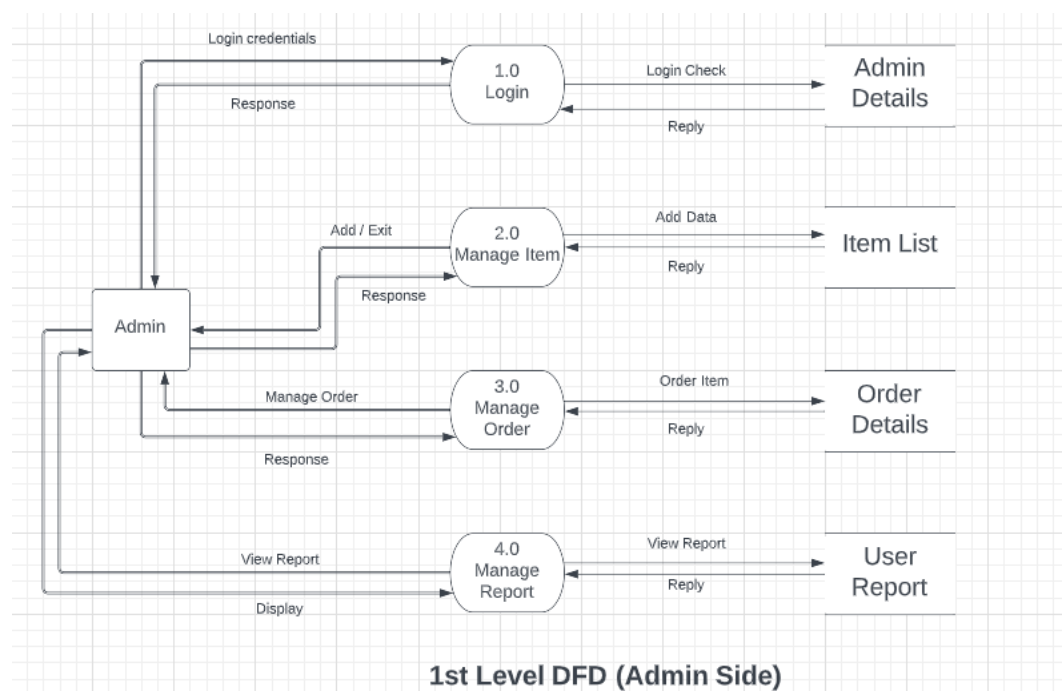


FIGURE 4.6: 1st level Admin Side

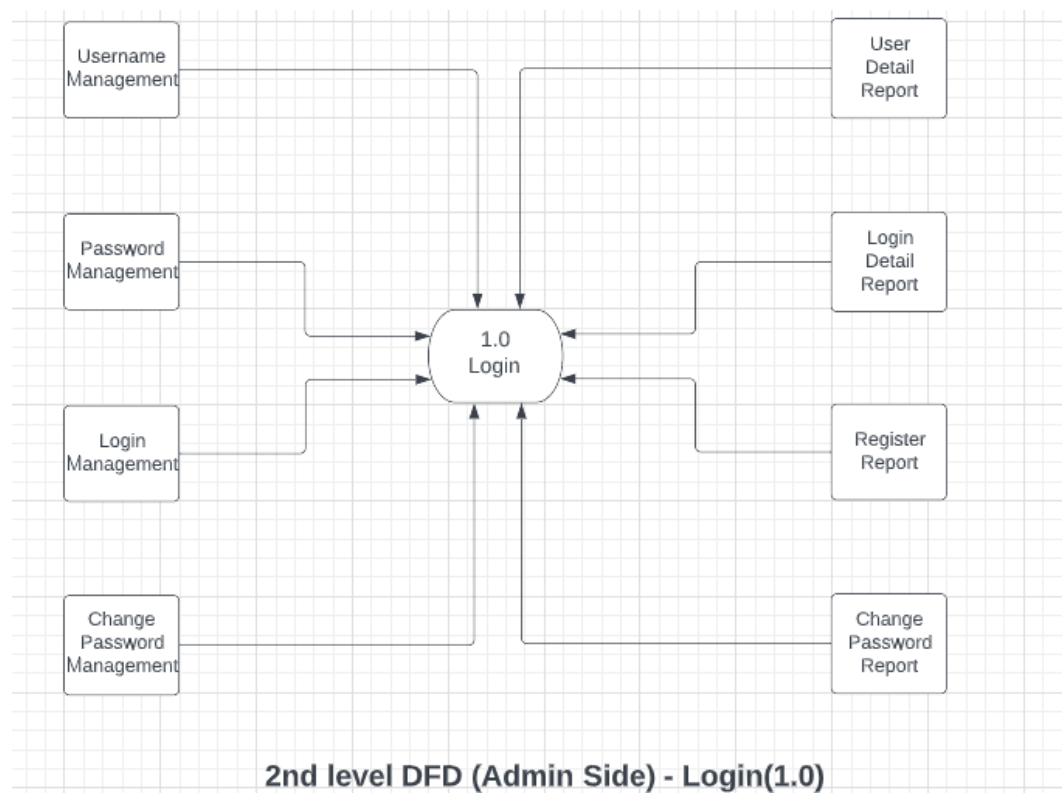


FIGURE 4.7: 2nd level Admin Side Login

4.2.4 2nd Level Data Flow Diagram(Admin Side)-Manage item(2.0)

Now, it is a second level Data flow diagram of admin side of manage item 2.0. We can see that the login process is in all Data flow diagrams because before doing every process the admin have to login first to enter in the system. As we have already discussed that in manage item the admin have to add items, change the price or quantity of the items and delete the items which Are no more in the stock. when the admin have to add change or delete the information, this information will also be added, changed or deleted in the item list of the database.

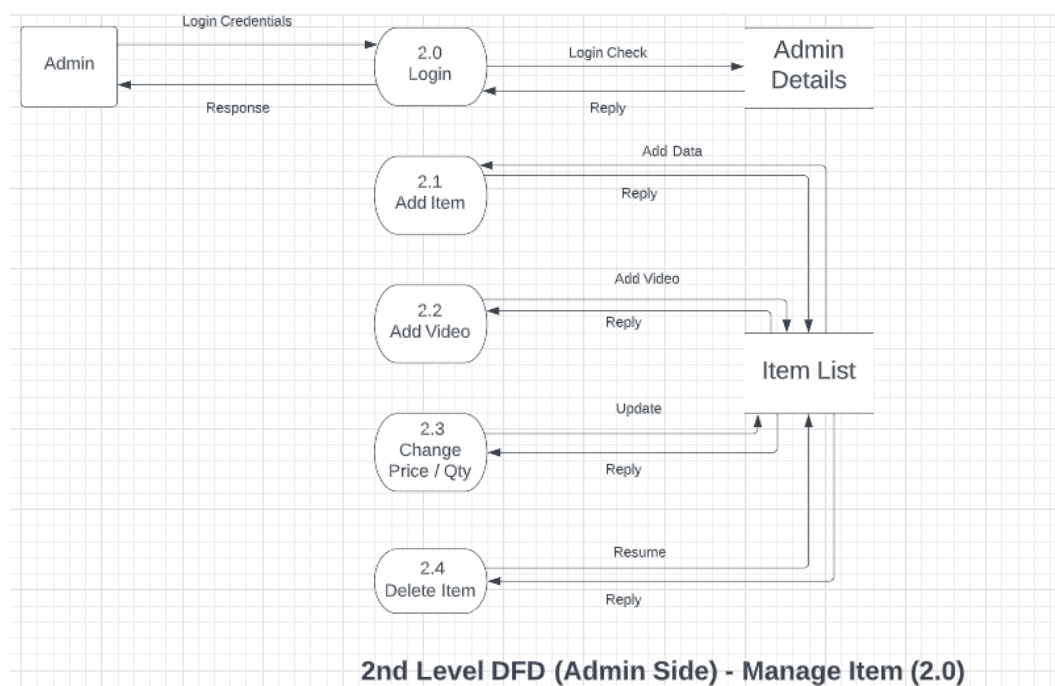


FIGURE 4.8: 2nd level Admin Manage Items

4.2.5 2nd Level Data Flow Diagram(Admin Side)-Manage order(3.0)

In this manage order section, first of all admin has to login. These login credentials will be verified by admin details section in the database. The admin can view the order update the order and can dispatch the order and all these three view order update order and dispatch will be stored in the item list of the database. In view order the admin can view the card from item list from the database. In update order the admin can update the order in the database in the item list while in the dispatch section the admin can dispatch the order in the item list of the database.

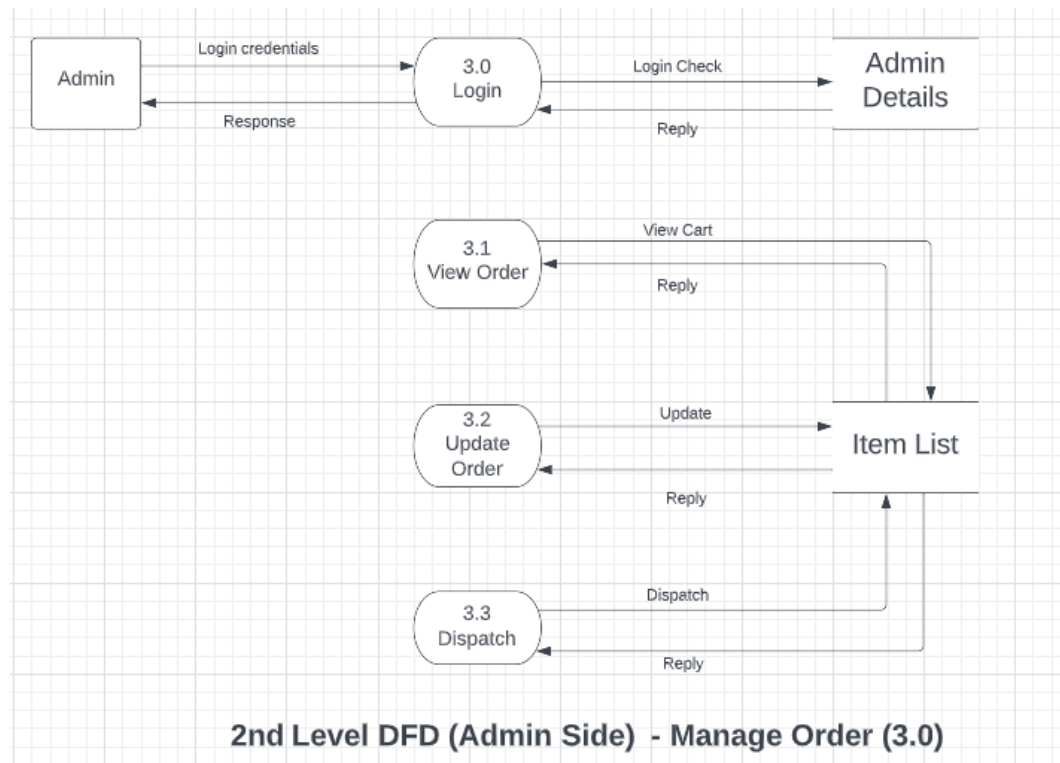


FIGURE 4.9: 2nd level Admin Manage Order

4.2.6 2nd Level Data Flow Diagram(Admin Side)-Manage Reports(4.0)

Admin have to log in first of all. The login credentials will be checked by the Admin detail in the database. The admin can generate user report by requesting the user reports section in the database to have a view on the user report. The admin will have request to view the user report to see the user details like user shopping carts or user orders or user address etc. In the same way the admin can request to view item report from the item report section or item report stock from the database. The admin can also request to you item reports from the item report stock of the database. The admin can request to use the item report to see the how much quantity of the items is left behind in the stock, or which things are expired now. The admin can also request to view order report from the order report section of the database. The admin can request to generate Order report to check that how much orders have been made by our customers or how much orders have been delivered to the users. The admin can also request to generate a payment report from the paid section in the database. The admin can request to view this payment report to check that whether the customer have made the payment of the order, he has placed or to check that how much payments has been

collected by the system in a day.

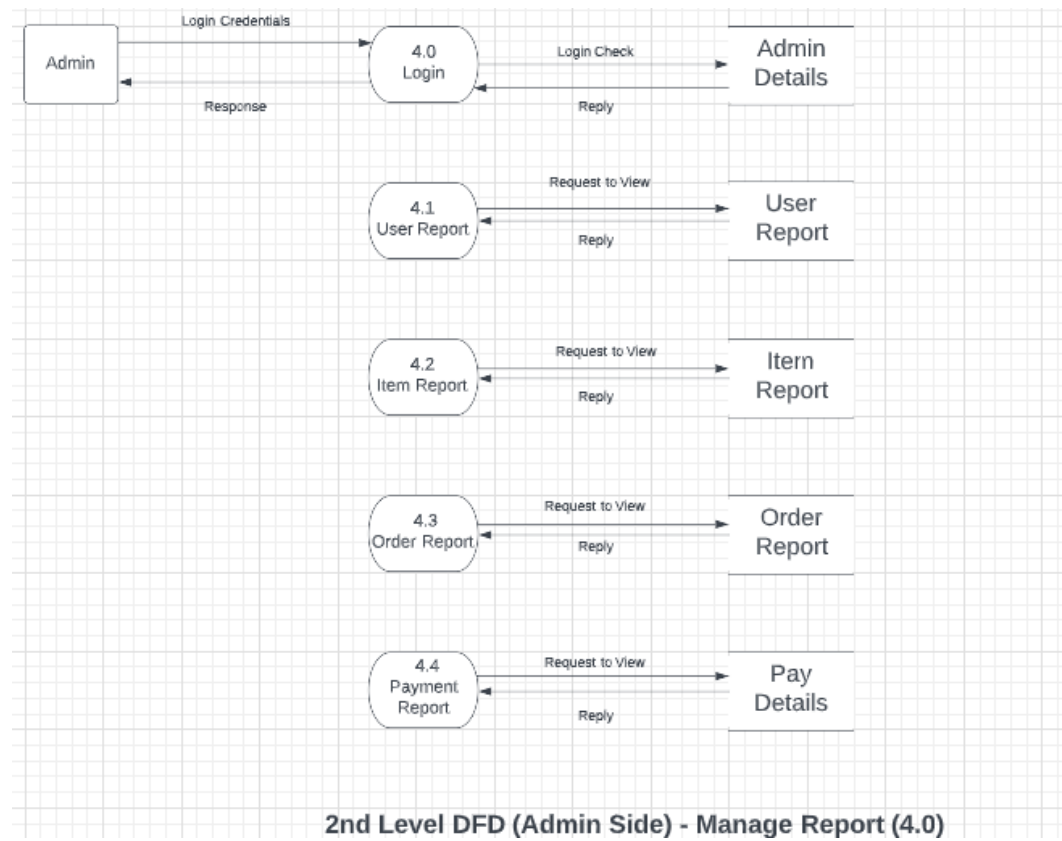


FIGURE 4.10: 2nd level Admin Manage Reports

4.3 1st Level Data Flow Diagram(Customer Side)

In the first level Data flow diagram of customer side the user can perform four processes. The first process user can perform is search item. The user can request searching and this searching will be provided by the item list present in database. The user can make this request to search the item he requires for his use. The next operation the user can perform is to register his or herself. He can add the credentials to register his or herself on the system and this data will be added in the user details stock of the database. When the user has successfully added the data to register, the database will reply the user that the user has been registered as a customer. After registration the user on the next turn. Whenever he wants to enter the system he has to log in the system. Call Logan he has to add the credentials for login and these credentials will be verified by the user details stock in the database. The system will verify these credentials to make sure that the user is the customer of the system or not. . The most important function or operation the user can perform is to purchase the items or products he likes or wants. He

can purchase the items one by one or he can add the items in the shopping cart. By clicking on purchase or buy the user will make his order and this order will be saved in the order list of the database.

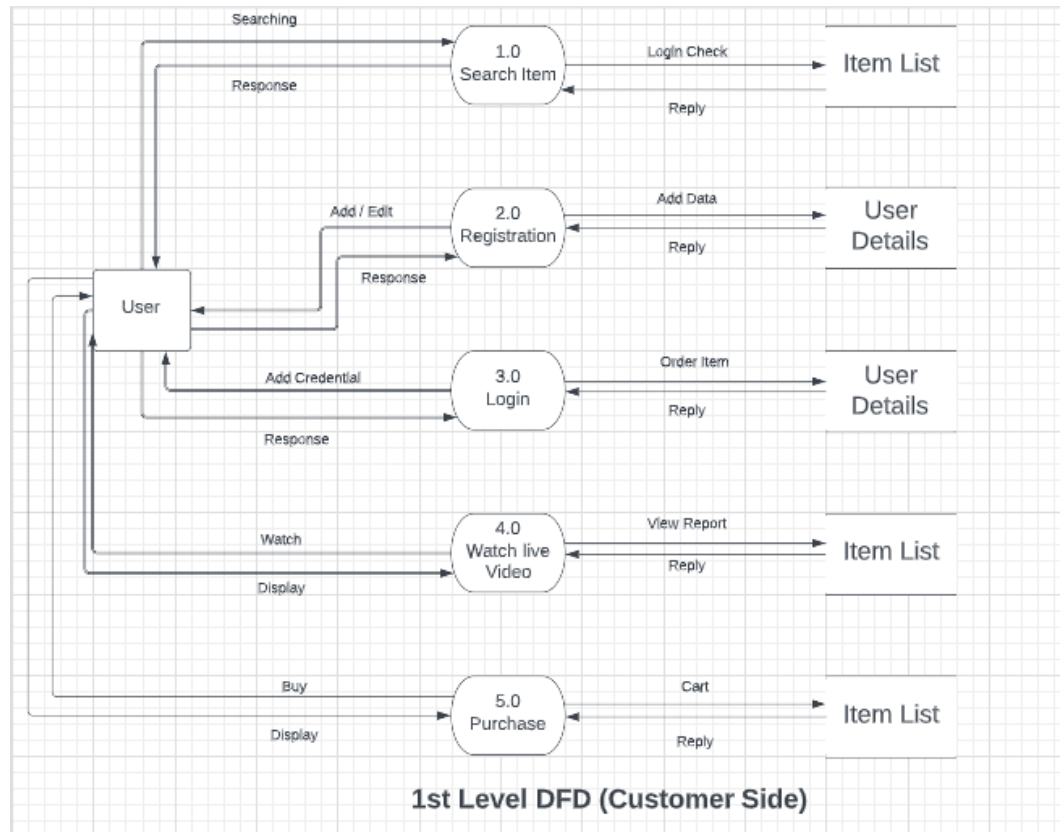


FIGURE 4.11: 1st Level Customer

4.3.1 2nd Level Data Flow Diagram(Customer Side)-Search(1.0)

If the user have to make search in the system for the products or items he wants, it completely depends upon the admin that if he had added the items or not. The admin can add items in the item list of the database. if the admin have to change the price or quantity of the items these things will also be updated in the item list of the database. And if admin wants to delete some items and this operation will also be performed in the item list of the database. And when customer have to search some items or products this task for this operation will also be done from the item list of the database. He will request to search the product from the item list of the database. The database will respond with the things or items the customer has searched for.

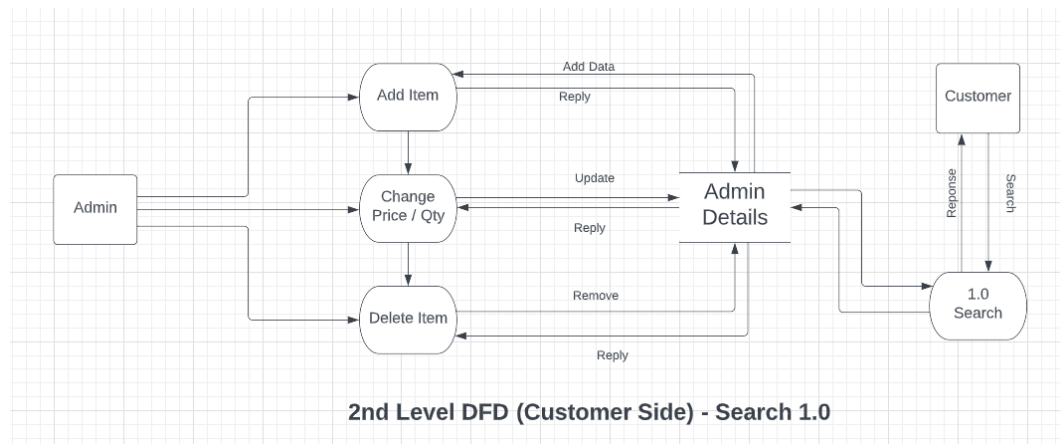


FIGURE 4.12: 2nd Level Customer Search

4.3.2 2nd Level Data Flow Diagram(Customer Side)-Registration(2.0)

In the second level Data flow diagram for the customer side of registration, the customer have to put in personal details like his first name, last name his age, email, password and his address. The customer then have also to enter login details like his username and password to get into the system every time he come to the software. The user or customer also have to enter his contact details like his mobile number his email address or his residential address. the customer or the user also have to enter his delivery location the location where delivery has to be made. All these details for the registration of the user or the customer will be added to the user details store in the database. The user details stock will confirm or reject the registration of the customer by verifying that the entered or added credentials are true.

4.3.3 2nd Level DFD(Customer Side)-Login(3.0)

The second level DFD of the customer side of login is very important. Because Login is the operation which involves every time the customer or the admin enters in the system. First of all the functionality of login operation is to manage the password chosen by the user. The login has to manage that the password entered is correct and strong. In this operation login is also managed. The next functionality performed in this section is the username management it is verified that the username entered is the correct and unique and not taken by anyone else. The last important functionality performed in this section is to change password management. the function in this process is to make sure that the password remains save. The user can change his password when he has forgotten the password. He can also change the password when some security issues have been

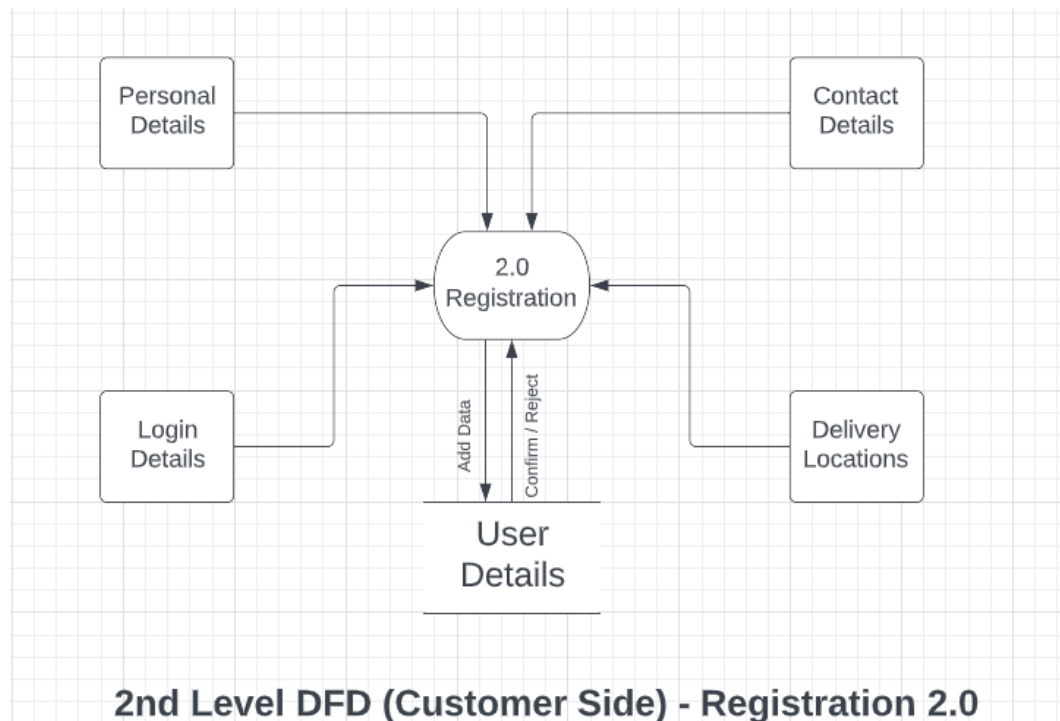


FIGURE 4.13: 2nd Level Customer Registration

occurred like his password have been stolen by someone else. All these management like password management, login management, username management and change password management, all these details can be added And updated in the user details section of the database.

4.3.4 2nd Level Data Flow Diagram(Customer Side)-Purchase(4.0)

The second level Data flow diagram of customer side of the purchase is there the first of all user has to log in the system he will enter the login credentials and these credentials will be checked and verified by the user details section in the database. After login the user can view the items or the products he wants to purchase or he wished to purchase. The items or products he wants to purchase he can also order the products one by one over canned select the products by adding in the shopping carts. These details will be added in the item details store of the database. After selecting the items he know it is a time to make order And this order details will be stored in the order list stock of the database the database will reply to the user that these things have been selected to make order. After making order the system will ask the user to purchase and make payment by online method or transaction. And all these details regarding purchase or payment will be stored in the payment section of the database.

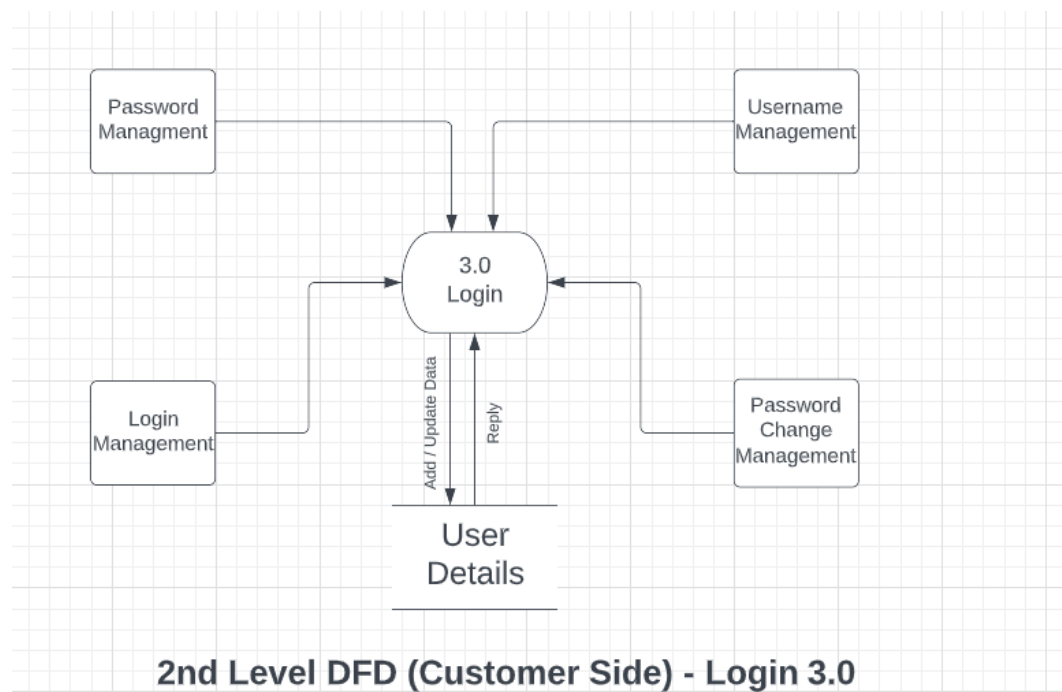


FIGURE 4.14: 2nd Level Customer Login

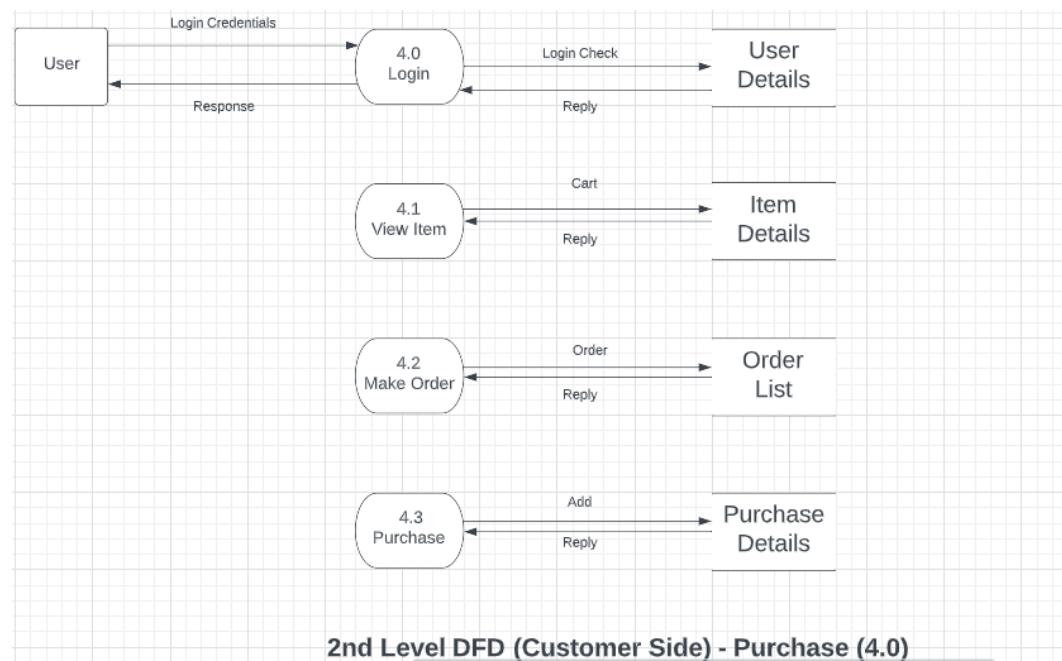


FIGURE 4.15: 2nd Level Customer Purchase

4.4 Entity Relation Diagram

Entity relationship is a graphical representation of a relation between different persons, users, object, entities in a software system. It is also known as entity relation model. The main parts of your diagram are entities attributes and relations. This relation can be one to one, one to many, many to one and many to many. In this diagram we have and it is like web mobile application, customers, shopping cart, registration or login, products and admin. The relations we have in this diagram are purchase, reserve product in, deliver, manages and to buy. The attribute for website is website name or application name. The attributes for customers are customer ID, Username, password, address, mobile number, email. The attributes for shopping cart are product ID, product name, total price etc. That tributes for registration or login are username, password, forgot password, reset password and registration. The attributes of product are product ID, prod-uct name, product category, product availability, product price. The attributes of admin entity are admin ID, admin password and admin username. The different relations are shown below between different entities in the following ER diagram.

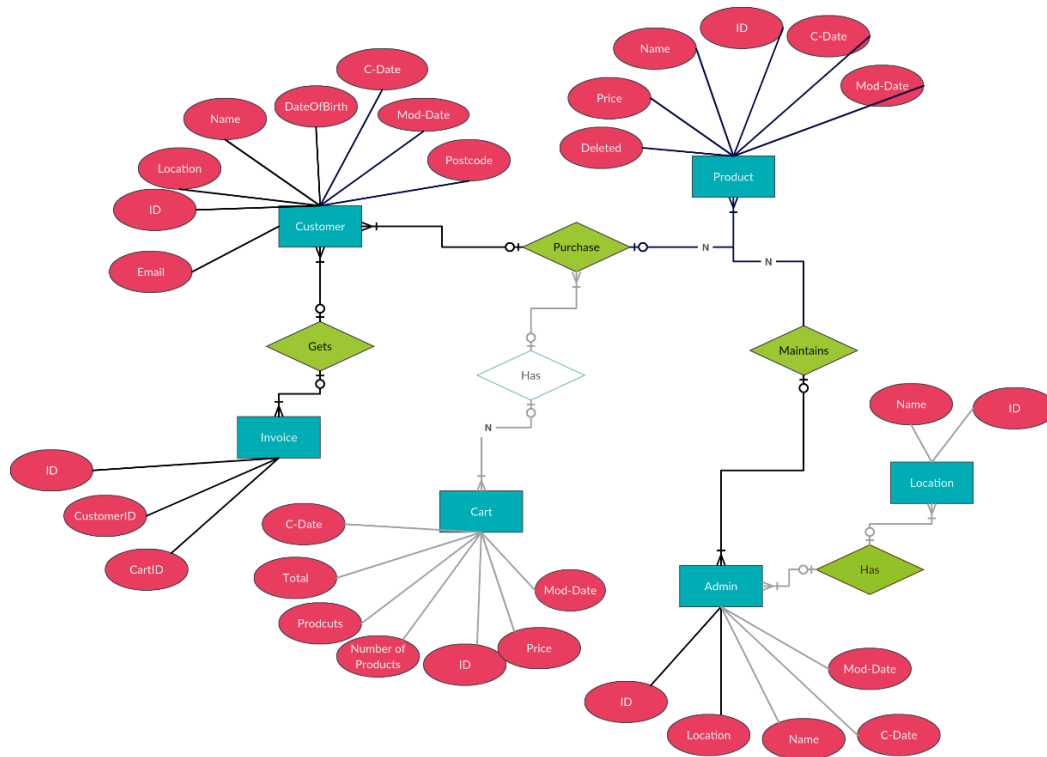


FIGURE 4.16: Entity Relationship Diagram

4.5 Database Diagram

Database diagram is the graphical representation of the structure of a database. it shows and displays the relationship and interaction between the different objects of a database. In this diagram different decisions like one to one, one to many, many to one and many to many are also used. In this diagram primary keys and foreign keys are also used. This diagram also shows the data type of each attribute and the space required to store that attribute.

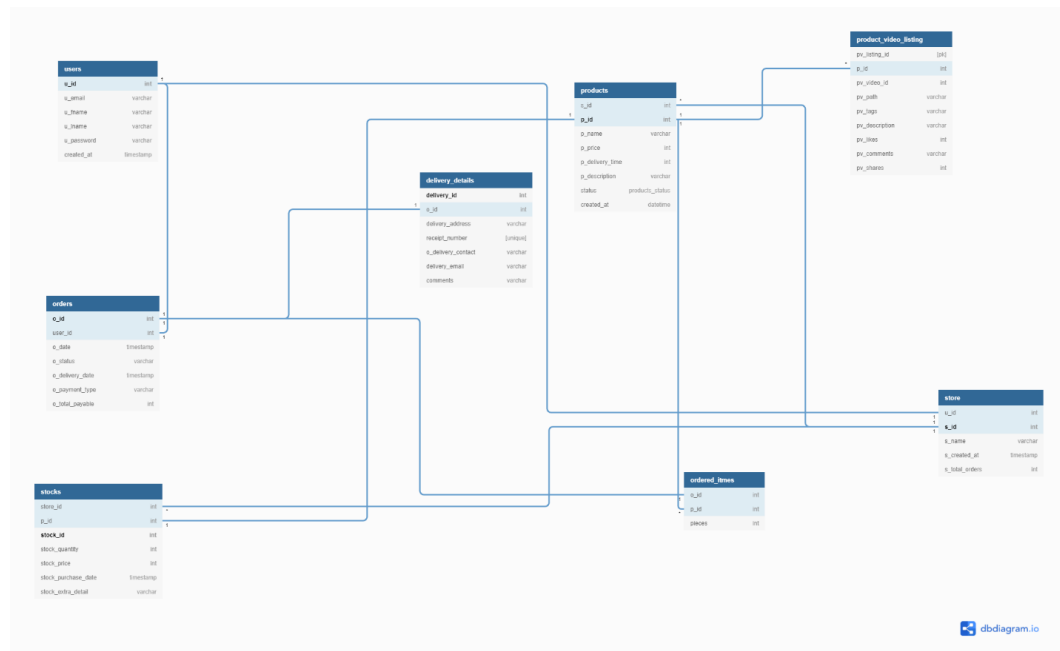


FIGURE 4.17: Database Diagram

4.6 Sequence Diagram

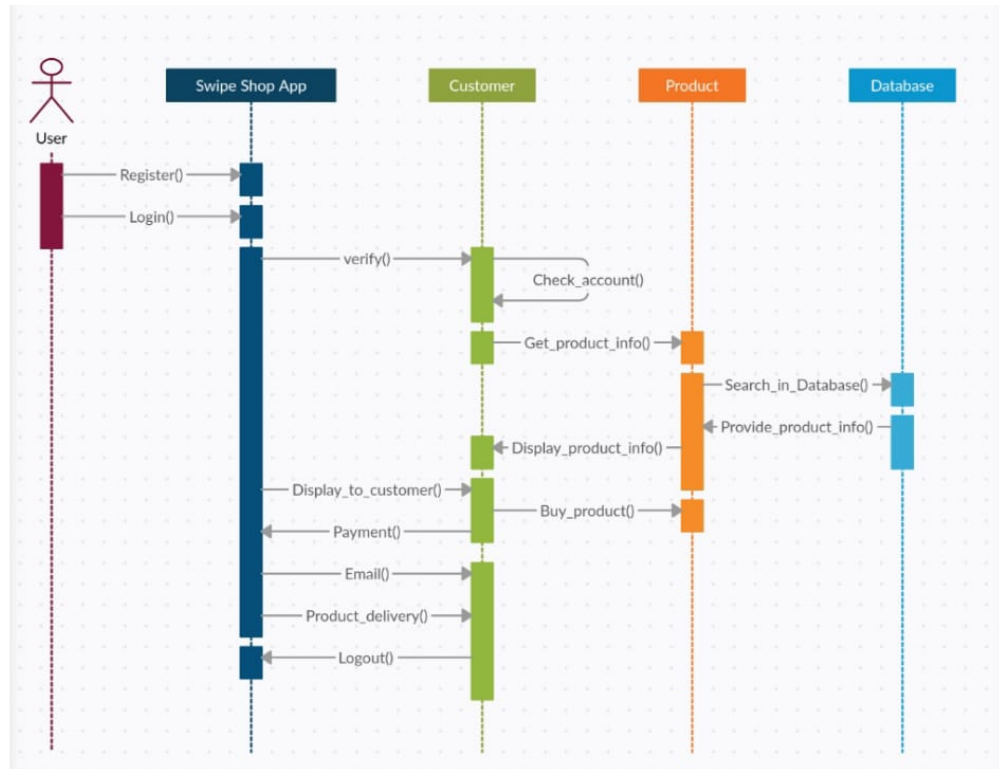


FIGURE 4.18: Sequence Diagram 1

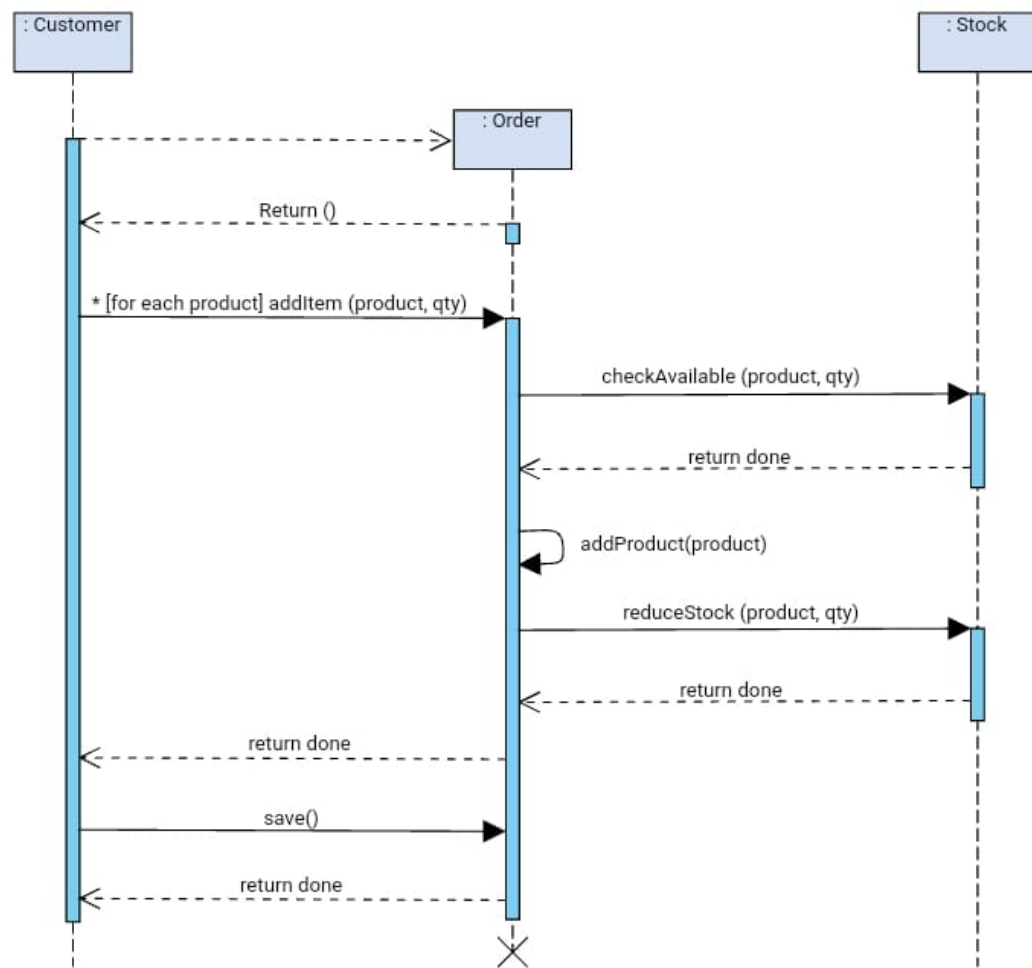


FIGURE 4.19: Sequence Diagram 2

4.7 Architecture Diagram

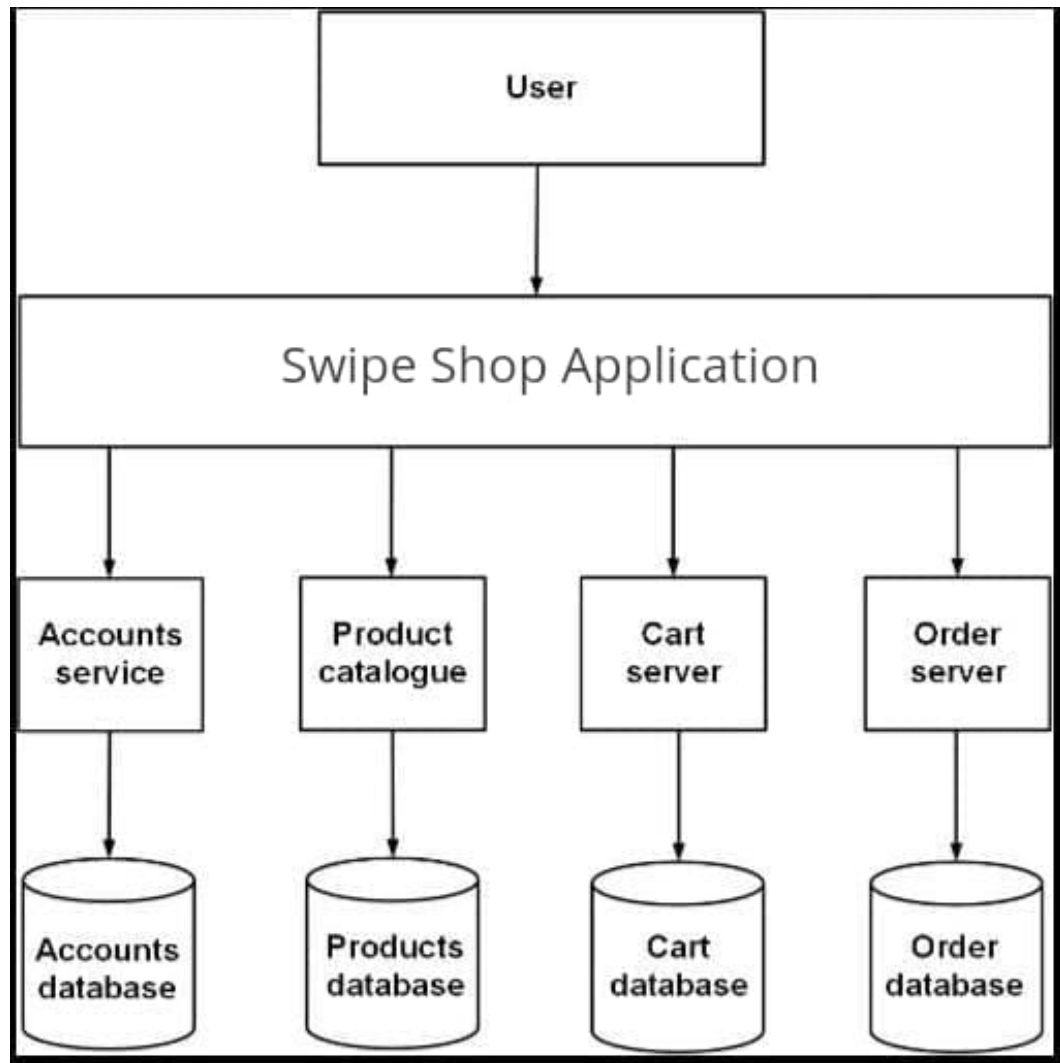


FIGURE 4.20: Architecture Diagram 1

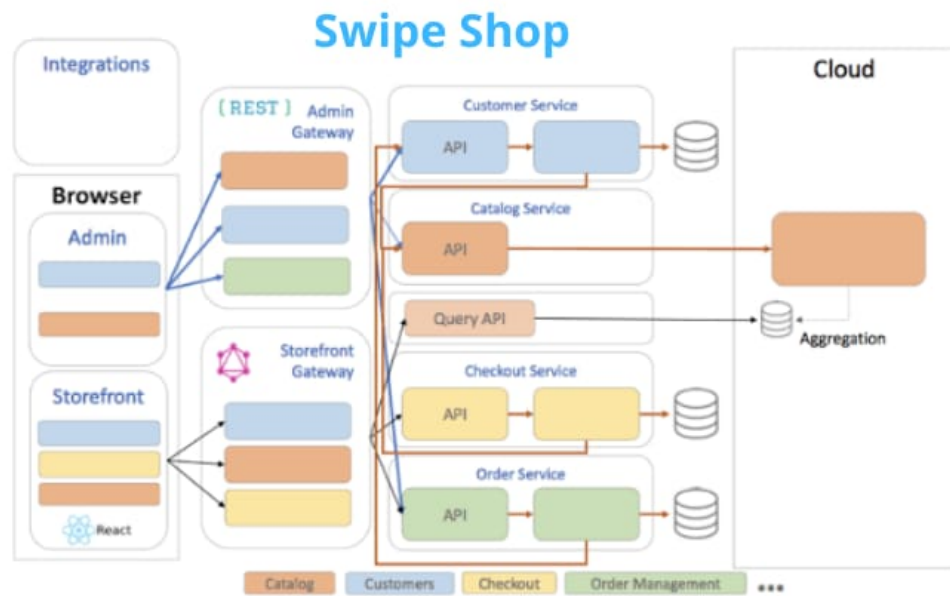


FIGURE 4.21: Architecture Diagram 2

Chapter 5

Implementation and Deployment Details

5.1 Implementation

Demand of our project was to develop a web application and mobile application. For the easiness of seller, we went on to develop a web application while for the buyer's perspective our mobile application will do the job. We have developed Web API's, React application, Flutter application and MongoDB database. Details of each of them is described below.

5.1.1 React Application

When developing the front end for our web application, we decided to go with react because of some certain that the react library offer. The React basically allows developers to utilize individual parts of their application on both client-side and the server-side, which ultimately boosts the speed of the development process. In simple terms, different developers can write individual parts and all changes made won't cause the logic of the application. Compared to other front end frameworks, the React code is easier to maintain and is flexible due to its modular structure. This flexibility, in turn, saves huge amount of time and cost to businesses. The core of the framework offers a virtual DOM program and server-side rendering, which makes complex apps run extremely fast. Another, major benefit that react offers is the re-usability of components so that developers don't have to write code again and again for same purposes. We have developed various components in our component tree to build up the react application. These components are mentioned below:

- Landing page

- Side Bar

- Top Bar
- Sign In
- Featured Info
- Latest Order
- Orders Info
- Tran Info
- WidgetLg
- WidgetSm
- Chart
- New Chart
- Pie Chart
- Radial Chart

All these components have been used and reused to develop all pages responsible for representation of the screens that will be visible to the user when user utilize our system. The pages in which these components have been used are as follows:

- Home
- Landing
- Analytics
- Log in
- New Product
- New User
- Orders
- Product
- Product List
- Transactions
- Users

These are the components and pages we have made thus far but we are always trying to keep up to date to make better user experience.

5.1.2 Web API

APIs bring a new level of modularity to applications. APIs allow developers to leverage the expertise of other applications. When an organization develops an application, they no longer need to reinvent the wheel when it comes to things like authentication, communication, payment processing, and maps. Instead, developers can leverage the seamless plug-in capabilities and functionality of APIs. APIs allow applications and system components to communicate with each other on internal networks as well as over the Internet. We have made a simple illustration of how an API works which as follows:

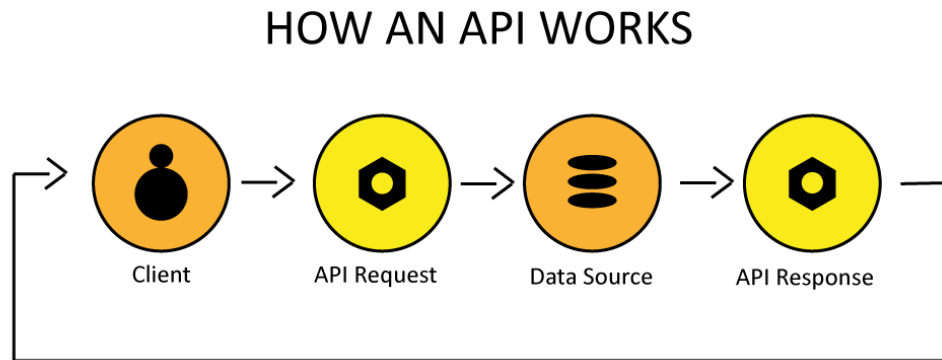


FIGURE 5.1: API

In our web API, we have built many End Points that would help our user to interact with our application and would help the user to place orders and get the payments done in no time.

5.1.2.1 End Points

We have developed several end points for our application. These endpoints would help our user to make a request at specific URLs to get the specific desired response in return to their requests. Hence, the interaction between our application and user would make the user experience great. Here are the endpoints we developed:

- Login
- Sign up
- Add product
- Upload video
- Edit product details
- View orders
- Change order status
- Complete order
- Payment

s

5.1.2.2 Database

For the sake of database, we have used MongoDB Database. All the collections that we have managed to develop for our application are mentioned below:

- Users
- Products

- Store
- Stocks
- Category
- Videos
- Orders
- Payment Details

5.1.3 Technology Used

FRONT END • React.js

DATABASE • MongoDB

API • Node.js, Express.js, Go Lang

5.1.4 System Requirements

In order to be able to use certain hardware or software, the system requirements are required specifications. A computer, for example, may need a certain I/O port to work with a peripheral device. To execute a certain application, a smartphone could need a particular operating system. The end users should meet the following conditions in order to use our system:

5.1.5 Hardware Requirements

- Processor Intel(R) Core (TM) m3-7Y30 CPU @ 1.00GHz 1.61 GHz
- Installed RAM 8.00 GB
- System type 64-bit operating system, x64-based processor
- Windows 10
- Ethernet connection (LAN) OR a wireless adapter (Wi-Fi)

5.1.6 Software Requirements

- Programming Languages
 - Node.js version = v16.13.0
 - Golang version = 1.17
 - Flutter version = 2.1
 - Dart version = 2.0

- IDE: Visual Studio
- Database: MongoDB
- JavaScript frameworks: React.js

5.2 Deployment Details

In market there are a number of cloud service providers available. We could use any of them to manage our deployments. Some major cloud providers are:

- AWS
- Microsoft Azure
- Google Cloud Provider
- IBM
- Server Space
- Kamatera
- VMWare
- Linode

But we have chosen Microsoft azure cloud for managing our services. Reasons for choosing azure:

5.2.1 Beginner Friendly

There are bunch of reasons for choosing azure some of them are listed down below: Azure provides full documentation for using there services. For a beginner it is easy to get started with azure and much of help is available for dealing with the issue being faced during deployment and maintaining.

5.2.2 Reasonable Pricing model

We could also choose linode there machines are cheaper than that of azure. But azure offers pay-as-you-go pricing model. This pricing model favors users who want to use services as test. Because there is no need of paying full upfront cost for machine even when we need to use it just for testing purposes.

5.2.3 Reliable

Azure is second most huge cloud services provider. It's services are reliable and offers upto 99.999999 percent uptime. achieving six nines for uptime may increase cost but it may be important for some critical businesses.

5.2.4 Scalability

Scalability means ability to increase or decrease. Azure offers two types of scalability: 1- horizontal scalability 2- vertical scalability Vertical scalability means adding more compute power (RAM,CPU,Cores) into one machine. Horizontal scalability means adding more machines to your network. It involves adding load balancers ,virtual machines and networks.

5.2.5 World wide access

Azure has it's data centers all over the world. Over 160+ data centers around the globe offers azure an edge over its competitors. One can choose data center near its location for lesser time delay. But services and their pricing may differ from place to place.

5.2.6 Security

Azure offers basic security plan to its customers. Every customer is secure enough to carry out its functions. But one can also add more security plan if business model demands so. Azure firewall and network security groups provides an easy way to do so.

5.2.7 Azure Portal

For managing all services at one place azure provides azure login portal

- <https://portal.azure.com/>

Anyone can signup or login into this portal for using azure provided services. We have azure subscription for managing this project. On logging in azure portal, dashboard looks like below:

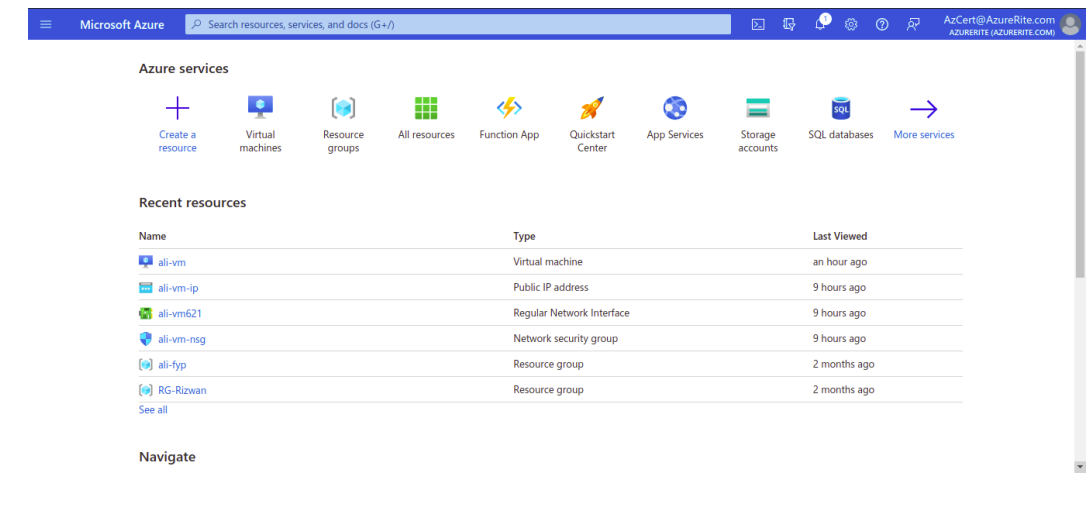


FIGURE 5.2: Azure Dashboard

It shows all services recently displayed and all services you can use. As it can be seen azure offers a lot of services but we are only using a virtual machine service to manage all deployments. Virtual machine is infrastructure as service (IaaS) offering. It means we are responsible for managing, updating and everything except for hardware. Reason for choosing is it's cheap. More PaaS and SaaS may be more flexible and easy but more azure takes responsibilities from you more it charges for it's services. This can be better understood from figure below:

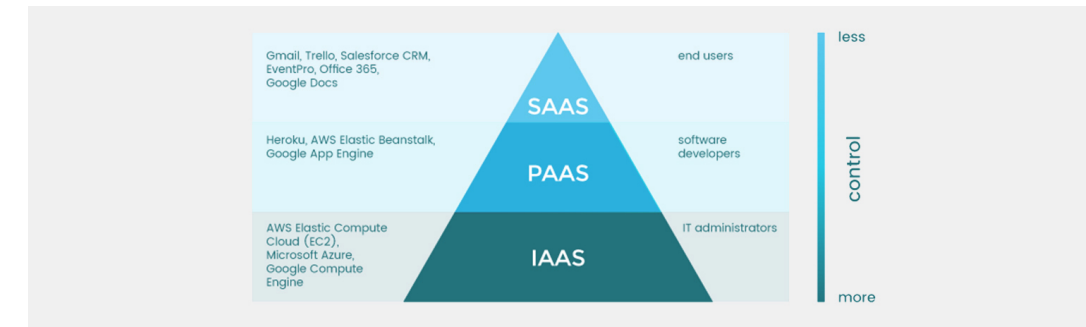


FIGURE 5.3: Saas Pass IaaS [1]

On selecting our created virtual machine from Virtual Machines section. Following panel can be seen. It provides all details about our server. We can manage and connect to our virtual machine from here.

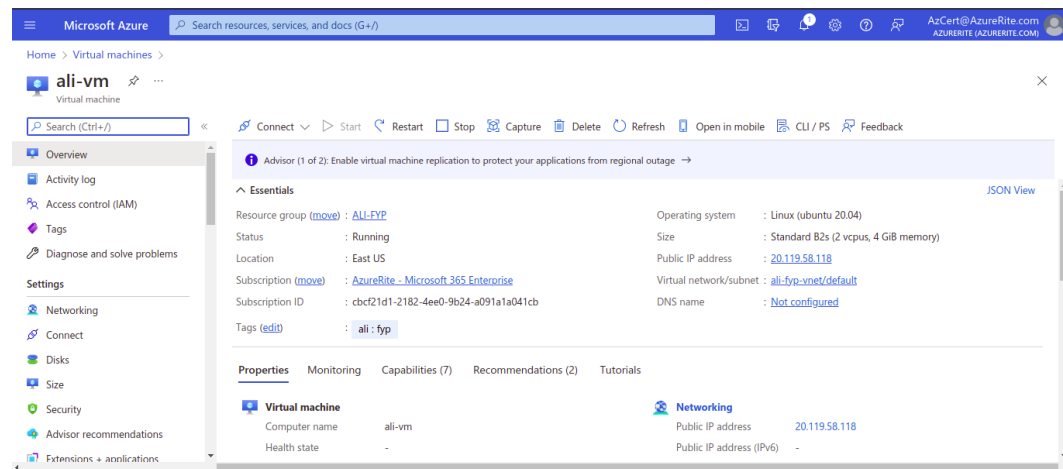
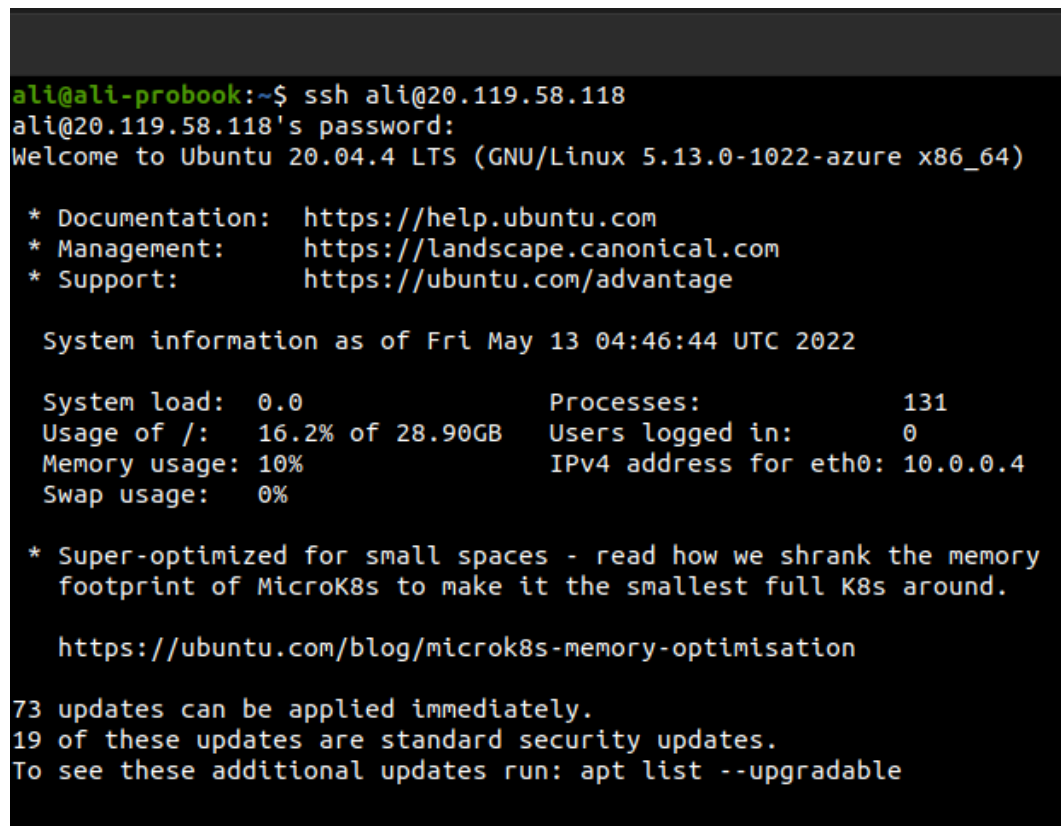


FIGURE 5.4: VM Panel

5.2.8 Virtual Machine Specs

- Size: Standard B2s (2 vcpus, 4 GiB memory)
- Operating System: Linux (ubuntu 20.04)
- Public IP address: 20.119.58.118
- Location: East US

Logging In: We login into our machine by ssh command and providing username and password. after successful login we can do anything we need.

A terminal window showing an SSH session. The user 'ali' is logged in as 'ali' on a machine named 'ali-probook'. The terminal displays the Ubuntu 20.04.4 LTS welcome message, system information, and update status.

```
ali@ali-probook:~$ ssh ali@20.119.58.118
ali@20.119.58.118's password:
Welcome to Ubuntu 20.04.4 LTS (GNU/Linux 5.13.0-1022-azure x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Fri May 13 04:46:44 UTC 2022

System load:  0.0               Processes:            131
Usage of /:   16.2% of 28.90GB   Users logged in:     0
Memory usage: 10%              IPv4 address for eth0: 10.0.0.4
Swap usage:   0%

 * Super-optimized for small spaces - read how we shrank the memory
   footprint of MicroK8s to make it the smallest full K8s around.

https://ubuntu.com/blog/microk8s-memory-optimisation

73 updates can be applied immediately.
19 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable
```

FIGURE 5.5: Logged in

Services Running:

On our machine we have following services running:

```

ali@ali-vm:~$ sudo lsof -i -P -n | grep LISTEN
systemd-r  564 systemd-resolve  13u IPv4  20055      0t0  TCP 127.0.0.53:53 (LISTEN)
mongod    627      mongod           11u IPv4  25234      0t0  TCP *:27017 (LISTEN)
nimble    632      root              5u  IPv4  22654      0t0  TCP *:8081 (LISTEN)
sshd      721      root              3u  IPv4  23372      0t0  TCP *:22 (LISTEN)
sshd      721      root              4u  IPv6  23374      0t0  TCP *:22 (LISTEN)
main     9331     ali               9u  IPv6 126464      0t0  TCP *:8080 (LISTEN)

```

FIGURE 5.6: Active Services

As seen from this figure we have these active and accessible through internet:
 MongoDB database
 Nimble Streamer
 Swipe Shop API

5.2.9 Mongo DB Database

We have deployed our database on this server and can be connected on port 27017. We can connect to our database by using Mongo Db compass or mongo shell. Following figure shows connection to mongodb through mongodb compass:

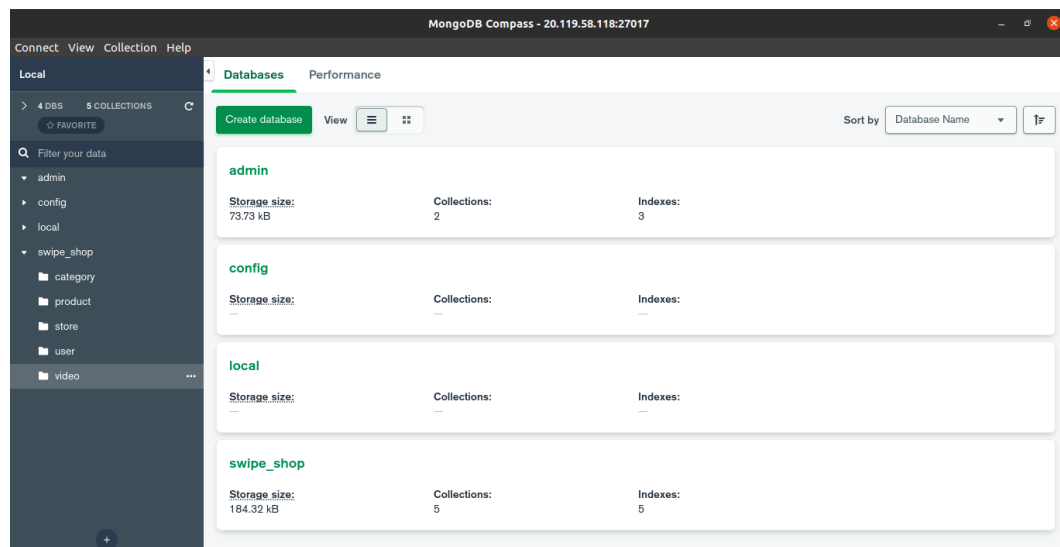


FIGURE 5.7: Mongo DB Compass

Complete structure of our database is displayed here. We can add, update, delete all records from here or add new documents to this database. It is very handy and provides a lot of functionality out of the box.

5.2.10 Nimble Streamer

For streaming videos to our mobile app we are using nimble streamer. It offers out of the box streaming algorithms support. It also offers HLS streaming. To manage this nimble streamer instance it offers WMS panel. You need to create a WMS account and add this account to your nimble streamer instance during installation. Now when you login to your WMS panel you will see all traffic and other stats of every instance added to your account. Following figure shows our panel as we have no active users so it displays no hikes.

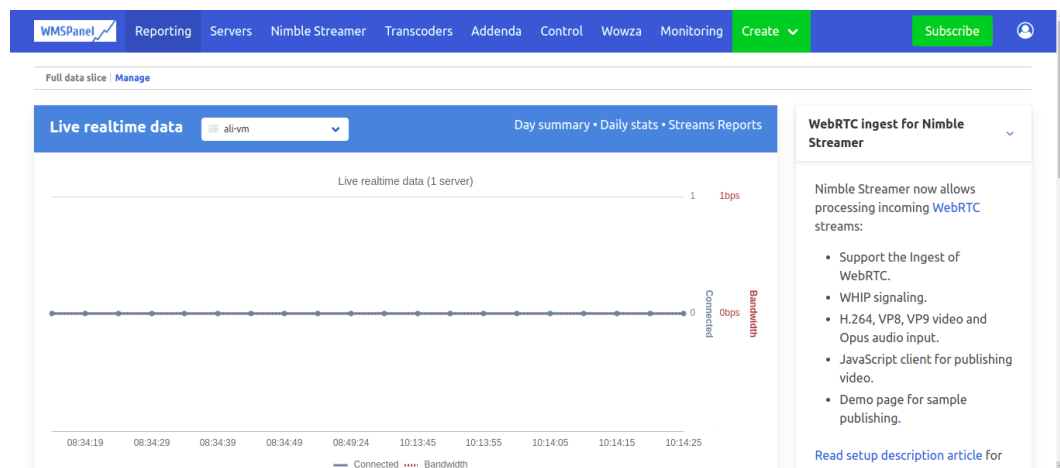


FIGURE 5.8: Nimble Streamer Dashboard

Swipe Shop API:

Our API is also in running status at port 8080. Mobile app and seller site uses this Api. It is accessible through internet. We can also test our Api from postman:

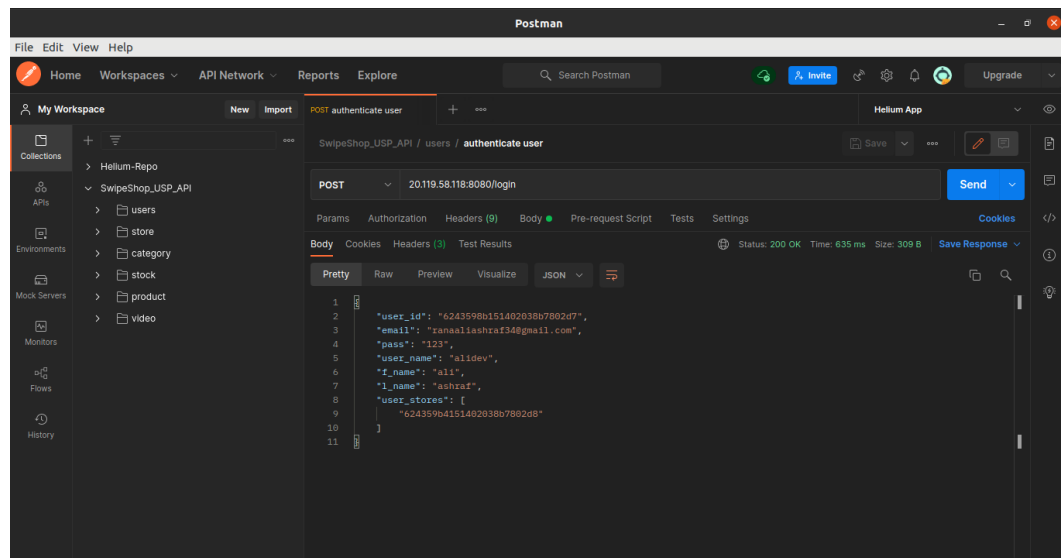


FIGURE 5.9: API Response

We sent a login request and got the shown response from our deployed API. We can test each individual endpoint from here running on our server.

Chapter 6

Results and Discussion

6.1 Web

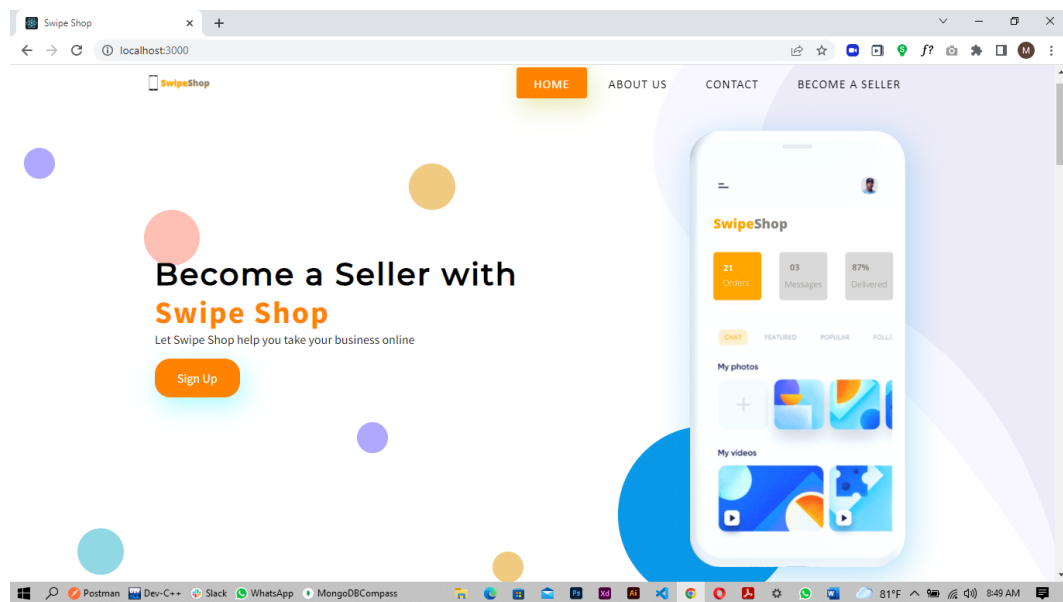


FIGURE 6.1: Figure 1

When the user first visits our web application, user would be able to vision an appealing landing page that would surely attract user's eyes and he will get excited and more than ever interested to join the swipe shop community and grow his/her business. At top we have a beautiful navigation bar which is showing multiple options with a beautiful swipe shop logo. There is a sign up button at the upper part of our landing home page. This would take user straight to the sign up / log in page from he/she could log in to their accounts or if they haven't signed up then they could sign themselves up as well.

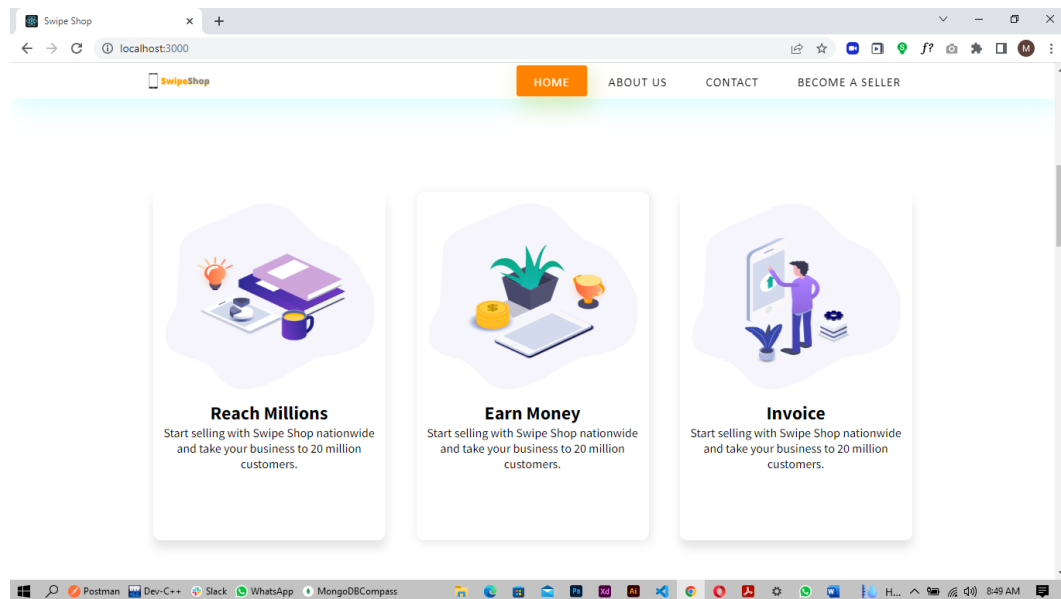


FIGURE 6.2: Figure 2

Sliding down on the landing page user will be able to see beautiful appealing cards that visualize some of the benefits that user will get from this application. When a seller will join our community, he / she would be able to reach out millions of consumers worldwide because of which the seller would be able to earn money more. As one would reach more people chances of selling more products would increase as well. Our easy to pay methods would be helpful for both buyer and sellers because of our well-integrated easy to use payment gateways.

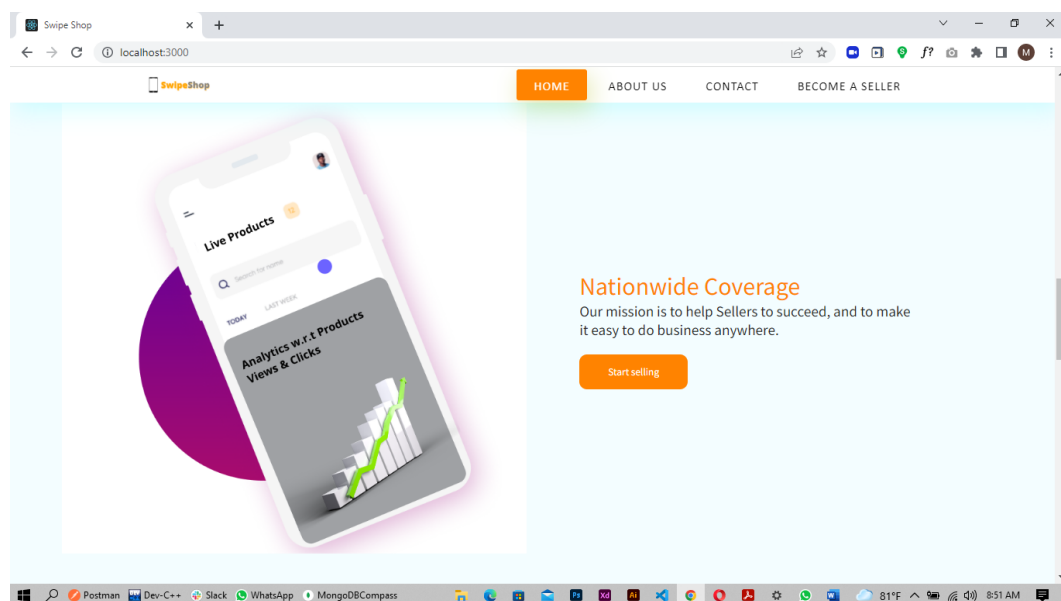


FIGURE 6.3: Figure 3

Our aim is to make sellers business successful and easier than ever before.

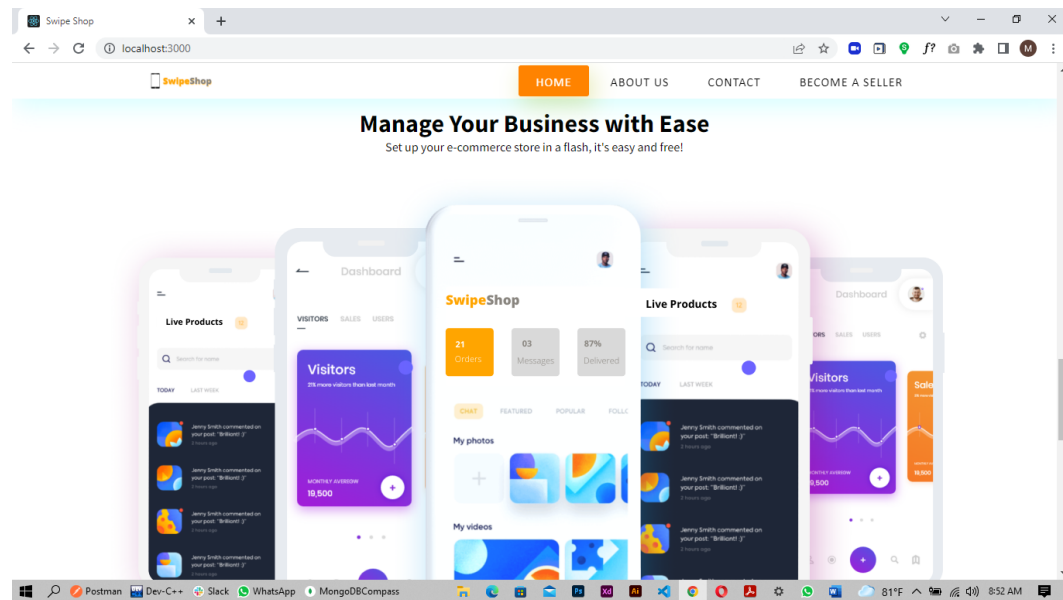


FIGURE 6.4: Figure 4

Setting your ecommerce store has never been this easy before. Sign up now and register yourself with us and start selling online in just couple of steps.

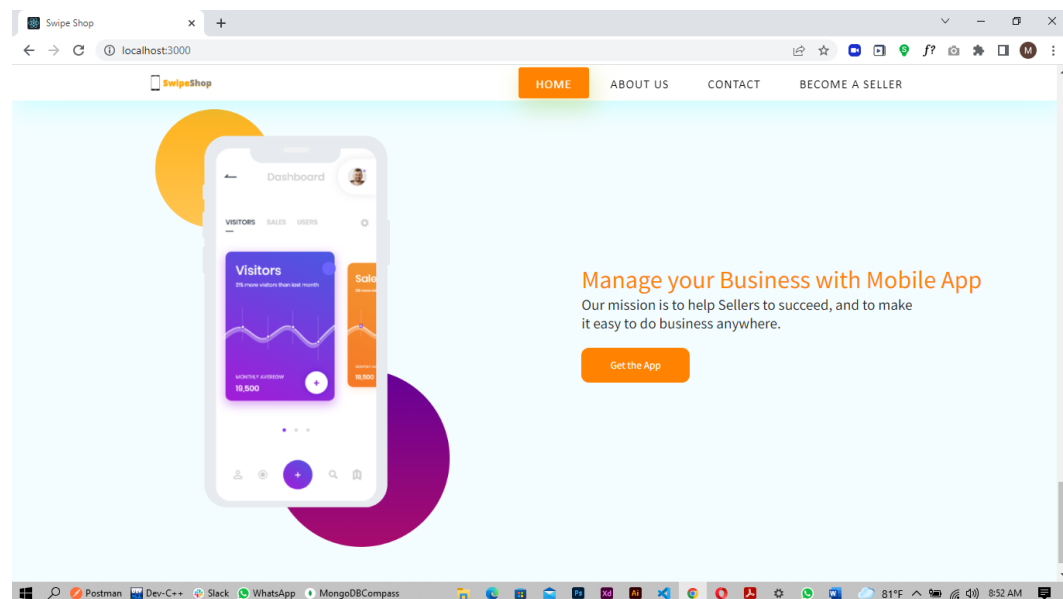


FIGURE 6.5: Figure 5

Currently, for the seller's sake we dealing only on web applications but for the near future for the ease of sellers we would make a mobile application with fully loaded features as well to ease the online journey for our sellers with us.

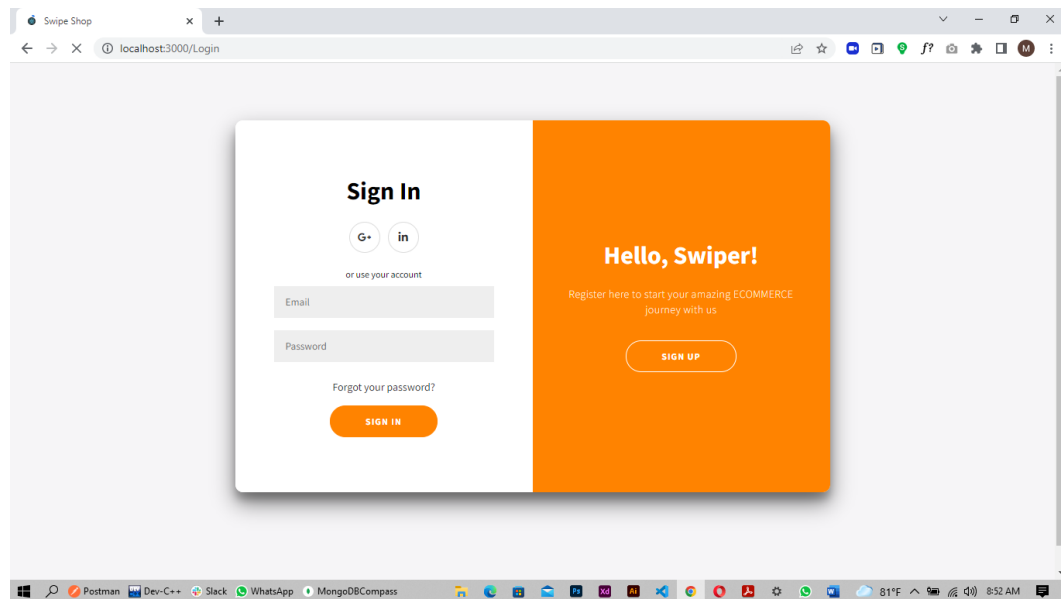


FIGURE 6.6: Figure 6

From this beautiful sliding log in form our user would be able to log in to his / her account to manage his/ her store and all the stuff including listing products and manage orders and stuff etc.

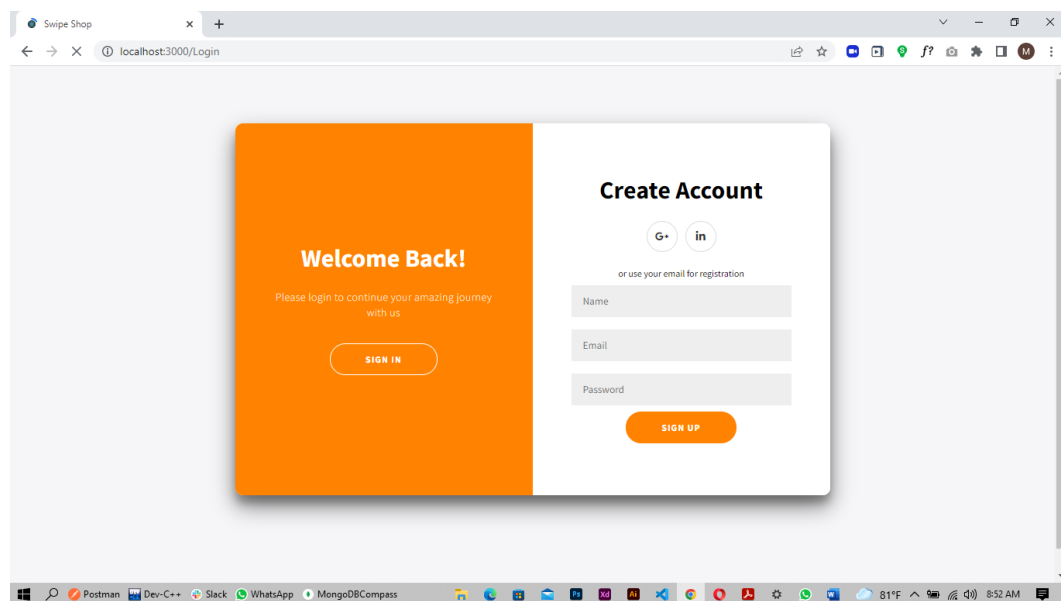


FIGURE 6.7: Figure 7

If the user hasn't signed up yet he / she will be able to register themselves from here and then would be able to log in from the log in form.

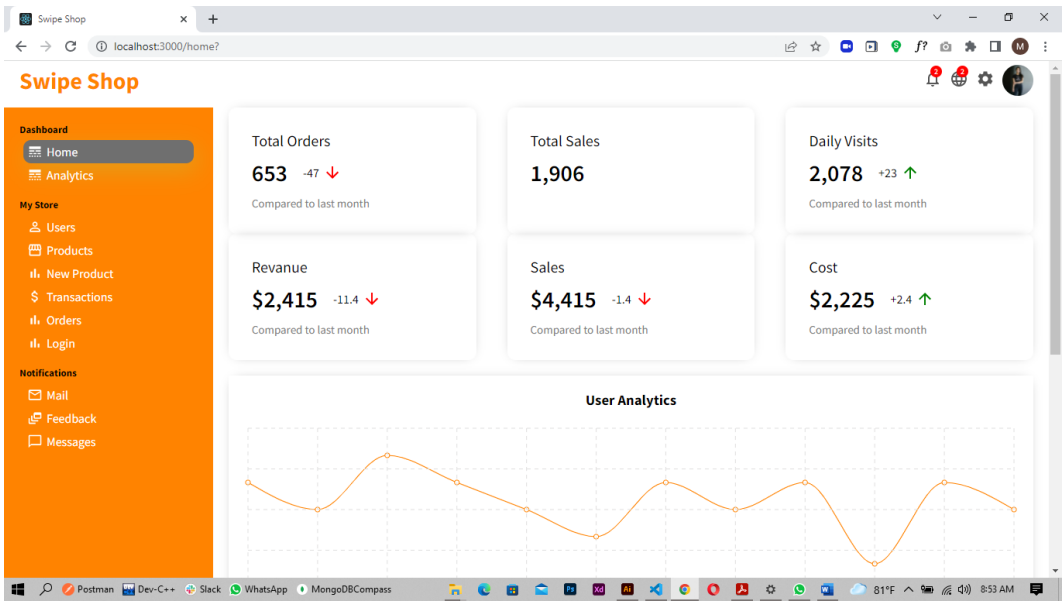


FIGURE 6.8: Figure 8

When the user will log in, he / she would be able to see some of the stats and numbers related to their store. The user would be able to see the total orders he got, how much number of units has he / she done yet, what are the number of daily visits to their stores, what has been the revenue since the last month, what is the amount of dollars been made through sales and what has been the cost been spend yet.

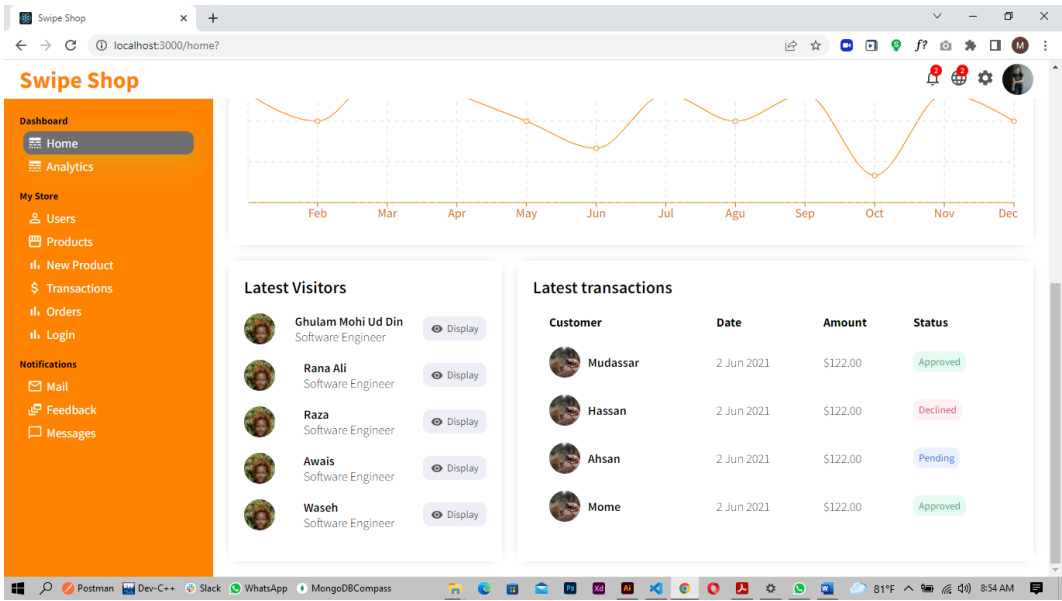


FIGURE 6.9: Figure 9

Latest visitors and latest transactions of the store can be visualized from this appealing display.

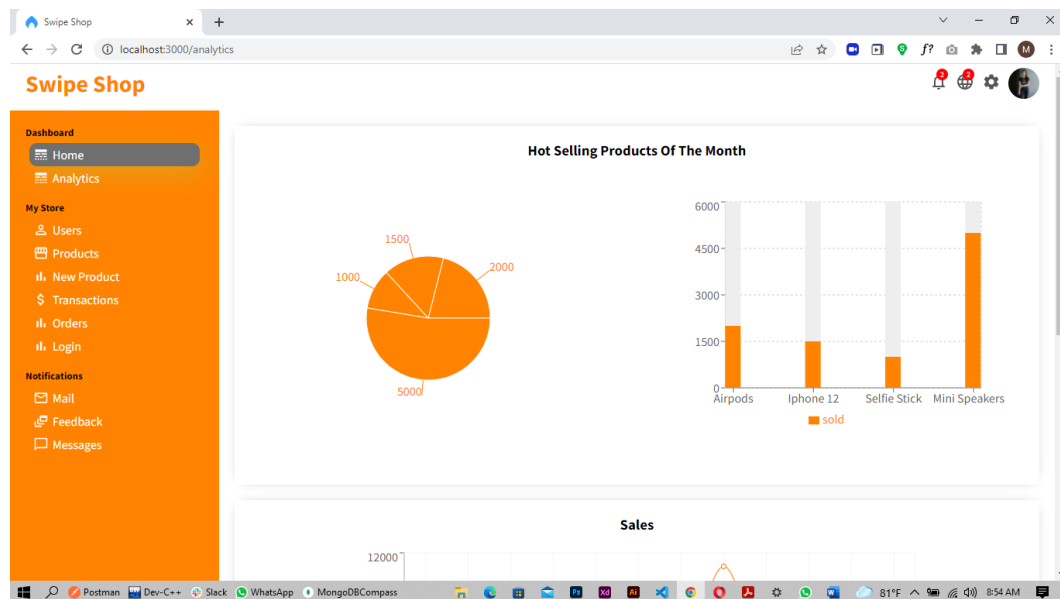


FIGURE 6.10: Figure 10

All the data analytics could be visualized from this panel from seller's dashboard where seller could see the numbers in the form of charts like the hot selling products of the month in the form of pie chart or bar chart which could increase the user experience and would provide an ease for the user as well.

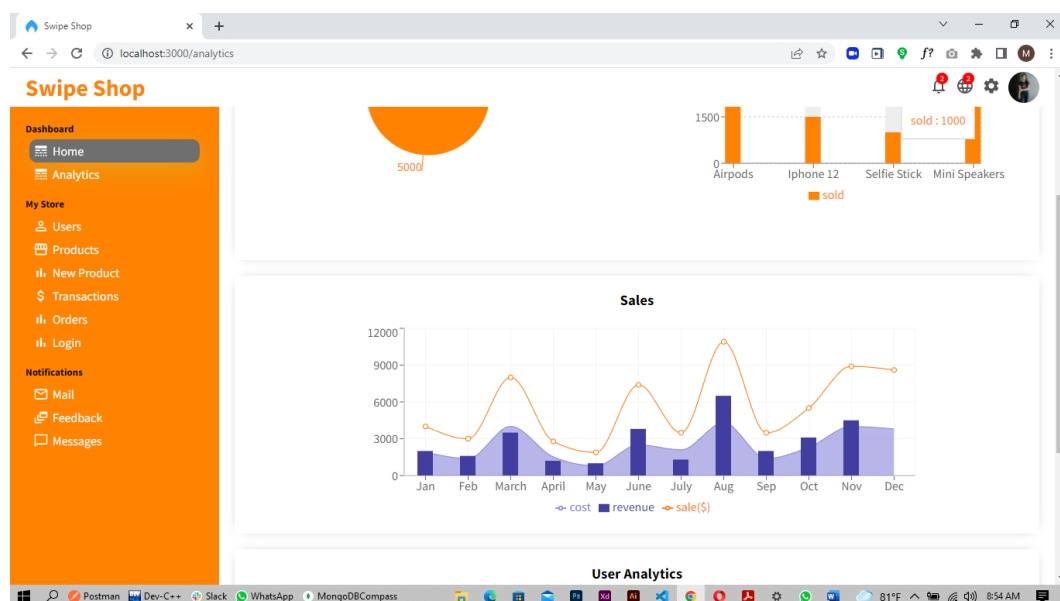


FIGURE 6.11: Figure 11

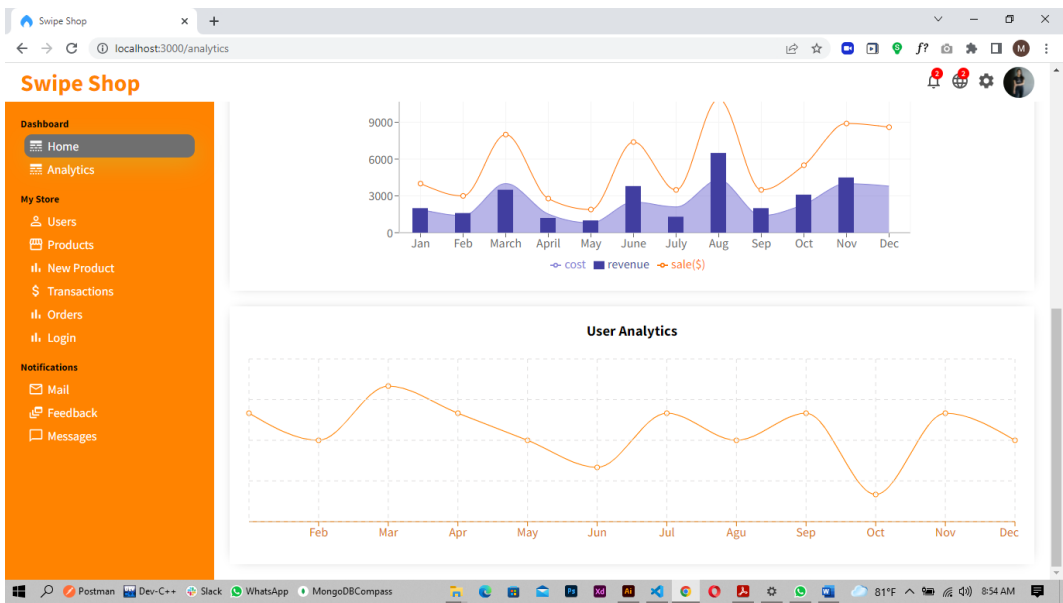


FIGURE 6.12: Figure 12

From this section user could be able to visualize all the sales going through the year which could help the seller a lot in making various marketing and advertisement decision or to make it selling pitch much more interesting to boost his / her sales throughout the months and the years.

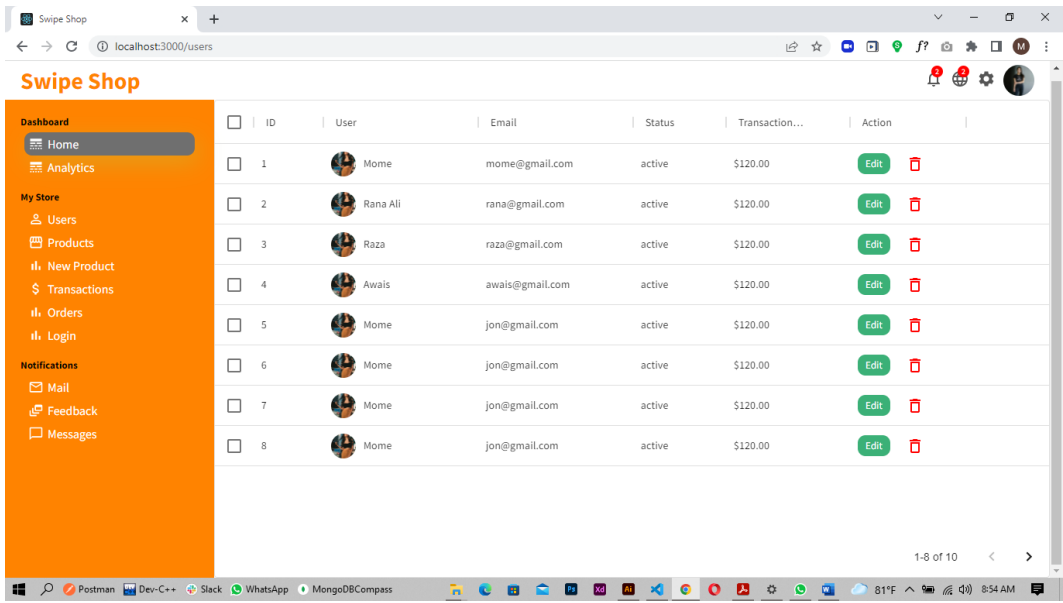


FIGURE 6.13: Figure 13

Here, one could see all the users that are running and managing the store, super admin of the store has the access to remove any of the user. User could edit his / her information as well.

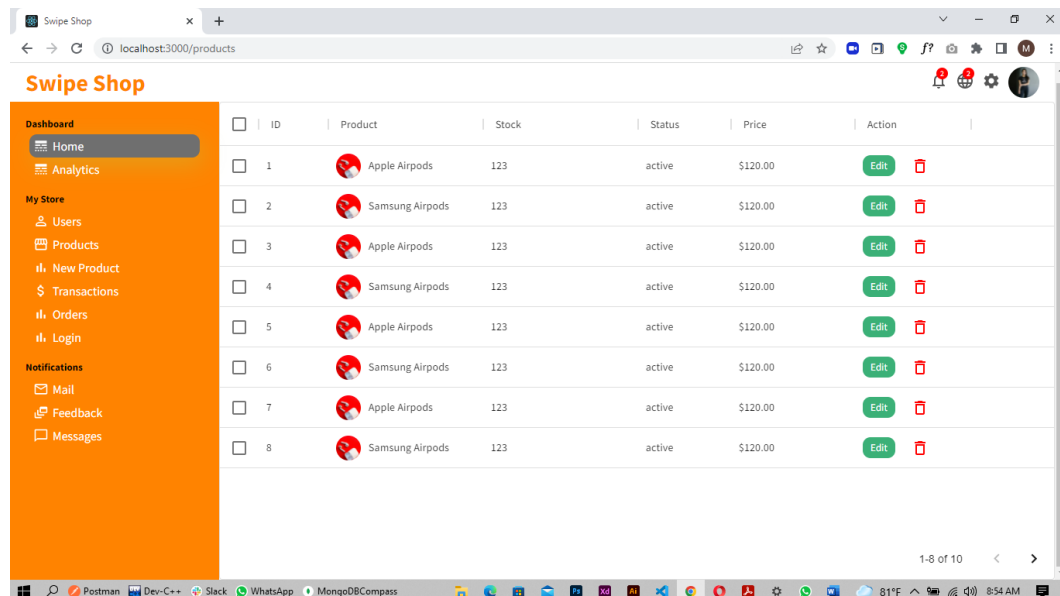


FIGURE 6.14: Figure 14

Here is the list of products that user would list on his store to sell through our platform. User could be able to remove, update or delete the products. Visualizing the listed products at one place would surely help out the user to make better decisions for the success of his / her store.

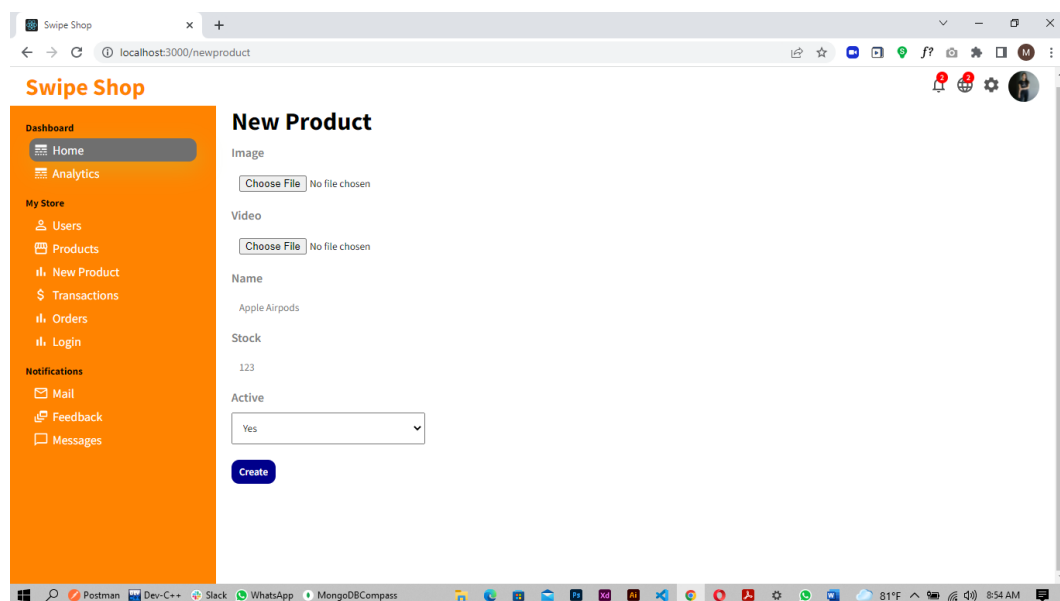


FIGURE 6.15: Figure 15

The ability to upload or list the product on the store could be visualize from this screen. The user could be able to upload image, videos as well. Name them and

enter the amount of stock he / she would have of that product and can make it active as well.

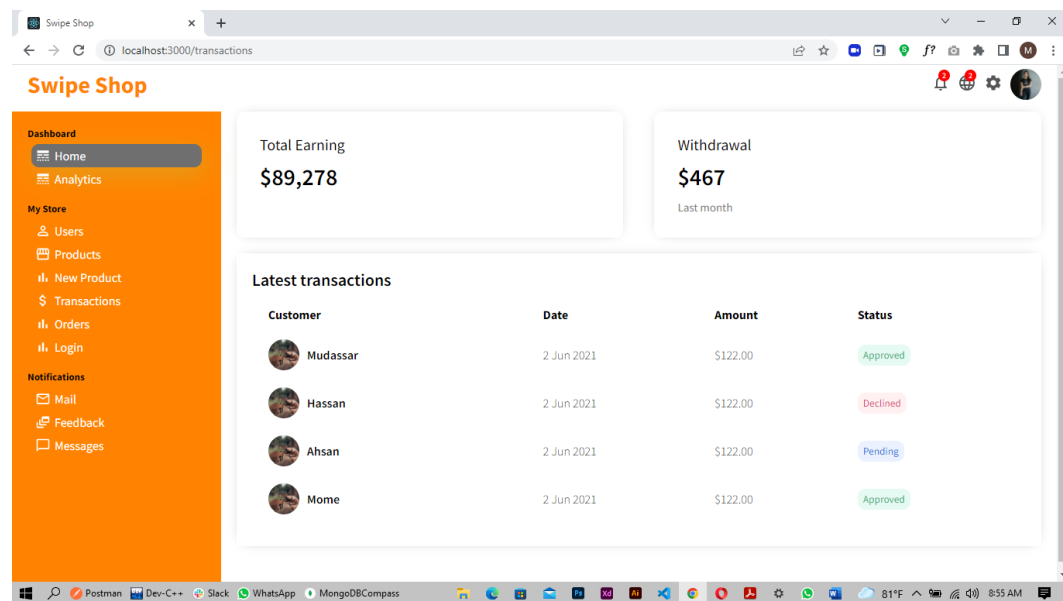


FIGURE 6.16: Figure 16

From this screen, the user could be able to see all his / her transaction amounts. All the latest transactions would be visible and user would be able to see total earnings of his own and the amount he /she withdrawn for the last month or so. These stats would be really helpful for the user to understand his financial situation and where the store stands in its finance concerns.

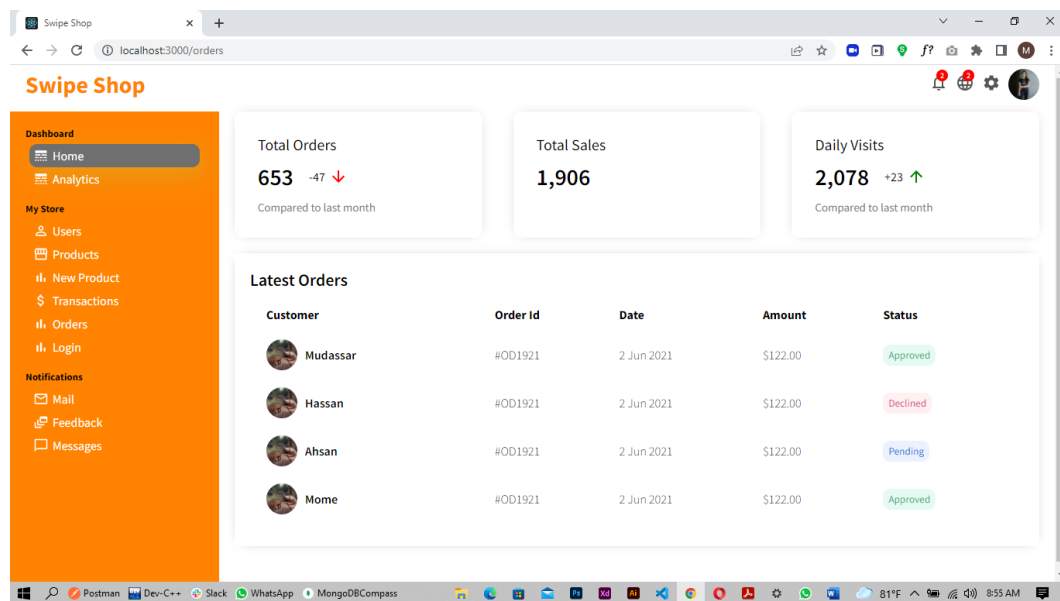


FIGURE 6.17: Figure 17

Here, the user would be able to see all the stats about the orders of the store. All the latest orders which include the order id, the date on which order was taken place, the amount of the order and the status whether the order is pending or nor, whether the order has been delivered and got approved or the order has been declined. Apart from that, all the number of orders from the last month and total number of sales from the last month and amount of people visited on your store could be visualize from this screen.

6.2 Mobile App

Mobile App: Swipe shop mobile app is primarily developed for customers but sellers can also manage their store from app. Every user is signed up as customer but later he may create and manage his own store. Mobile app offers following functionalities:

- User can scroll and view all product videos.
- Like any video.
- Place order of product from video.
- View cart

- Seller can also manage his store and do can following:
 - Create a new product
 - Upload video for a product

Mobile app is in development and testing phase. As our APIs are already deployed now we are testing and integrating mobile app. As it is subject continuous change that why we are not discussing it in details.

6.3 Functionalities

6.3.1 Web

The new user can Sign up the Swipe Shop to register him or herself on it. In this way he can become a part of Swipe Shop e-commerce website. It is the phase in which user can register itself on it. Now from this onward next functionality is login. The existing user can login to Swipe Shop e-commerce website every time he wants to use this website to sell somethings. The user have to enter login credentials. After verifying it the user can have access to system. After log in the user can have access to Swipe Shop online shopping portal. In this section he/she can have view of different aspects like products, orders or payment etc. The user can add product, he wants to sell on this online shopping platform that is e-commerce website. He/she can have a view of the list of items he/she added in the store. The seller can also update or delete the items in this section. The user have to upload the video of the product that he has added in list to sell. The videos are stored in the directory while the user will be given the link of the video of the product. The user can add the detail description or information about the product that user wants to sell on this online e-commerce website. He can also edit the details or description about the products. These details can help to describe the features of the product mention in the list. The user can see the orders detail in the sense that how many orders the user has gained to do. What is the date on which order is booked. Till what date the order should be delivered. What is the amount of order. The user can change order status in the meaning that user can update the number of selected items in order, priority and attribute values. Swipe Shop user have to complete the order taken. The seller have to make sure the delivery of the product. He/She have to track the order till delivery. The seller on the Swipe Shop can view the details of transaction amount. He/She can also have view of last month transactions amount against orders delivered. The user can also view its total earnings through orders delivered or selling of products.

6.3.2 Mobile Application

The buyer or customer can first of all create account on this mobile app. The customer can find different things in different categories by or by searching. The searching results are in form of links of videos and images. The swipe up option is also introduced in this system. The description of products or items is also mentioned. You can also check price, reviews or ratings of products. The chat option is also introduced to chat with seller. The buyer, if want something can order by clicking order option. The buyer can also add products in cart if want more things to purchase. The customer can also add products in favorite or wishing list. To make order, the buyer have to add address. The buyer can also edit address if destination changed or address is wrong. The buyer can checkout the details of order. For example, quantity of things, price and address etc. By clicking on order , payment option is next. The buyer can also select the method of payment. It can be via online transaction or cash method. The buyer can also track the order which is made by him/ her.

6.4 Test Cases

6.4.1 Log In

Testing that the Login page is displayed

Preconditions	User should know the URL of Login page of the system
Actions	Type the URL of login page of the system in the address bar of the browser
Expected Results	Login screen should be displayed containing two text fields for entering username and password with login button, a checkbox with label of “remember me” and an option of “forgot password”
Tested By:	Syed Muhammad Raza
Result:	Success

Testing that the validation message is displayed when user leaves username or password field as blank

Preconditions	Login page should be opened
Actions	Click the Login button on the Login page
Expected Results	System should display a validation message when user leaves username or password field as blank and should not login the user into the system
Tested By:	Syed Muhammad Raza
Result:	Success

Testing that the both the text fields i.e. Email and Password accepts alphanumeric strings only

Preconditions	Login page should be opened
Actions	Type Email and Password in the provided text field on the Login page
Expected Results	System should login the user into the system in case if entered valid credentials else user is displayed a validation message of “incorrect format” and ask the user to enter again
Tested By:	Syed Muhammad Raza
Result:	Success

Testing that the option with a label of “Forgot Password” on the login page redirects to a page where system asks the user about its confidential information and sends a links on the primary email address to re-set password which further redirects to the procedure of resetting password

Preconditions	Make a member of system by signing up in the system
Actions	Enter the valid username in the provided text field and click the option with a label of “Forgot Password” on the Login page
Expected Results	System should redirect to a page where system asks the user about its confidential information and sends a links on the primary email address to re-set password
Tested By:	Syed Muhammad Raza
Result:	Success

Testing that user is able to login with valid username and password

Preconditions	Make a member of system by signing up in the system
Actions	Enter the correct username and password in the provided text fields and click the Login button on the Login page
Expected Results	System should login the user into the system/User should be able to login with valid username and password
Tested By:	Syed Muhammad Raza
Result:	Success

Testing that user is unable to login with invalid username or password

Preconditions	Login page should be opened
Actions	Enter the username and password in the provided text fields and click the Login button on the Login page
Expected Results	System should not login the user into the system and user is displayed a validation message of “incorrect username or password”
Tested By:	Syed Muhammad Raza
Result:	Success

6.4.2 General Components

Testing that the Pagination works correctly on each page

Preconditions	User should be logged in and respected tab should be opened
Actions	Click the right-arrow symbol for moving to the next page, left-arrow for moving back to the previous page or click the page number for jumping to the respected page
Expected Results	System should display all the same features of the page with an updated version of the respected table by showing the next most entries or previous entries on each page
Tested By:	Ali Ashraf
Result:	Success

Testing that the Search bar works correctly

Preconditions	User should be logged in and respected tab should be opened
Actions	Type in the Search bar
Expected Results	System should display all the same features of the page with an updated version of the respected table by the respected matched results (if any) or a message of “no records found” is displayed
Tested By:	Ali Ashraf
Result:	Success

Testing that date picker works correctly

Preconditions	User should be logged in and respected tab should be opened
Actions	Click the Date Picker
Expected Results	System should display a calendar to choose a date
Tested By:	Ali Ashraf
Result:	Success

Testing that submit/save button works correctly

Preconditions	User should be logged in and respected tab should be opened
Actions	Click the Submits/Save button
Expected Results	System should save the data in the database, redirect the result to the respected linked classes and user is displayed a validation message of “Submitted Successfully”
Tested By:	Ali Ashraf
Result:	Success

6.4.3 Store Admin/Seller Profile

Testing that the student is able to view Profile

Preconditions	User should be logged in and Profile should be complete
Actions	Click the Profile button from drop down- toggle menu in the top right of the header
Expected Results	System should display the details of the user in the profile
Tested By:	Ghulam Mohi Ud Din
Result:	Success

Testing that the text fields i.e. Email, Password and Confirm password accepts alphanumeric strings only

Preconditions	User should be logged in and Profile settings should be opened
Actions	Type in the respected text field user want to change on the Profile settings page
Expected Results	System should display a check symbol if entered valid format else user is displayed a validation message of “incorrect format” and ask the user to enter again
Tested By:	Ghulam Mohi Ud Din
Result:	Success

Testing that the Confirm password matches password

Preconditions	User should be logged in and Profile settings should be opened
Actions	Type in the respected text field on the Profile settings page
Expected Results	System should display a check symbol if entered password matches else user is displayed a validation message of “password not matched” and ask the user to enter again
Tested By:	Ghulam Mohi Ud Din
Result:	Success

Testing that user is able to view order details

Preconditions	User should be logged in
Actions	Click the Orders tab from the sidebar of the dashboard
Expected Results	System should display the header, footer and sidebar along with the body of the page. The body of the page should contain details of all the orders. Furthermore, a search bar, filters to be applied and a drop down menu for displaying the number of entries on each page along with pagination is included
Tested By:	Ghulam Mohi Ud Din
Result:	Success

Testing that seller is able to view pending orders

Preconditions	User should be logged in and some orders should be placed by customer for testing this case.
Actions	Click the Pending Orders tab from the sidebar of the dashboard
Expected Results	System should display the header, footer and sidebar along with the body of the page. The body of the page should contain a table of new/pending orders. Furthermore, a search bar, filters to be applied and a drop down menu for displaying the number of entries on each page along with pagination is included
Tested By:	Ghulam Mohi Ud Din
Result	Success

Testing that user is able to view Dashboard

Preconditions	User should be logged in
Actions	Click the Dashboard tab from the sidebar of the dashboard
Expected Results	System should display the header, footer and sidebar along with the body of the page. The body of the page should contain the name of the tab with the name, store details and all the widgets
Tested By:	Ghulam Mohi Ud Din
Result	Success

Testing that user is able to view upload products tab

Preconditions	User should be logged in
Actions	Click the Upload Products tab from the sidebar of the dashboard
Expected Results	System should display the header, footer and sidebar along with the body of the page. The body of the page should contain section includes which product name, description field , tags field and upload button.
Tested By:	Ghulam Mohi Ud Din
Result	Success

Testing that teacher is able to upload products

Preconditions	User should be logged in and Upload Products tab should be open
Actions	Click the Upload button on the Upload Product section
Expected Results	System should display a validation message of “Uploaded Successfully” on the screen.
Tested By:	Ghulam Mohi Ud Din
Result	Success

Testing that seller is able to view uploaded products

Preconditions	User should be logged in
Actions	Click the View Products tab from the sidebar of the dashboard
Expected Results	System should display the header, footer and sidebar along with the body of the page. The body of the page should contain the tab name and a table of existing products along with an edit and delete button. Furthermore, a search bar, filters to be applied, a drop-down menu for displaying the number of entries on each page and pagination is included
Tested By:	Ghulam Mohi Ud Din
Result	Success

Chapter 7

Conclusion

Swipe Shop is an e-commerce platform where users can easily buy and sell products with transparency .Swipe Shop is providing the sellers with the web application where they can add products, create stores , updates stocks , check sales and do all the related work to their business.They can upload products videos form the mobile application. Swipe Shop , on the other hand , provides its customers to easily swipe through their screens and select the products they want to buy and from the buyer they trust. It provides them with 360 videos of the product from which they can make sure of the quality of the products and order products with ease of mind. All of this is provided to them under one roof whether it is buyers or sellers. Their online shopping experience is going to another level after using Swipe Shop and its services .We have plans to add other payment methods in the mobile application and data analysis and trends on the seller side in the web application in future.

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