A

PROJECT REPORT

ON

"Online Shopping System with Targeted Advertisement Using Token and Encrypted Feedback"

UNDER THE GUIDANCE OF

Prof. Ms. P. R. Gadyanavar

SUBMITTED BY

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SANT GAJANAN MAHARAJ COLLEGE OF ENGINEERING, MAHAGAON

Academic year: **2021-22**

Sant Gajanan Maharaj Rural Hospital & Research Centre's
SANT GAJANAN MAHARAJ COLLEGE OF ENGINEERING,
MAHAGAON

CERTIFICATE

This is to certify that the project entitled **"Online Shopping System with Targeted Advertisement Using Token and Encrypted Feedback"**, which is being submitted by,

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for the 'Bachelor of Computer Science and Engineering'of **Shivaji University, Kolhapur**. This is the bonafide work carried under my supervision and guidance.

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Date:

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UNDERTAKING

We hereby confirm that the work which is being presented in the final year Project Report entitled **"Online Shopping System with Targeted Advertisement Using Token and Encrypted Feedback",** in the partial fulfillment of the requirements for the award of the **Bachelor of Technology in Computer Science and Engineering** and submitted to the Department of Computer Science and Engineering of Sant Gajanan Maharaj College of Engineering, Mahagaon, Maharashtra is an authentic record of my own work carried out during a period from **Sept 2021 to Jan 2022**(**7th semester**) under the supervision of **Prof. S. G. Swami, Assistant Professor, CSE Department**.

The matter presented in this Project Report has not been submitted by any one of us for the award of any other degree elsewhere.

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It gives us proud privilege to complete this project work on "**Online Shopping System with Targeted Advertisement Using Token And encrypted feedback**".

Under the guidance of Prof. Miss. P. R. Gadyanavar. We are also grateful for helping in smooth progress of project work.

We are also thankfully to Prof S.G. Swami (HOD CSE Dept.) and all staff member of department for giving us guidance for making this project successfully.

Mr. Pratik P. Bodhe (Leader)

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ABSTRACT

The objective of this project is to develop a general-purpose online store where the products can be brought from the comfort of home through the internet. This system stores the list of products, price, list of products is organized by category and successful delivery of the product from warehouse the customer will get notification. The customer will get notifications of newly added products and discount offers. Shopping has been a favorite pastime activity for quite some time. We have removed key drawbacks of previously existing solution. Our proposed idea has online booked of the products from the comfort of home through the internet. This system stores the list of products, price, list of products is organized by category and successful delivery of the product from warehouse the customer will get notification, online payment and advertisement. If the admin launches new product, then the client gets the notification and can book their orders.

LIST OF FIGURES

LIST OF ABBREVIATIONS

Abbreviation	Full Form
RFID	Radio Frequency Identification
NPM	Node Package Manager
AWS	Amazon Web Services
NPX	Node Package Execute
JDK	Java Development Kit
SDK	Software Development Kit
iOS	iPhone Operating System
API	Application Programming Interface

CONTENTS

1. Introduction:

1.1.Introduction:

The online store is a virtual store on internet where customers can browse the catalog and select products they want to buy. The selected item may be selected in a shopping cart. At checkout time, the items in the shopping cart will be presented as an order. At that time more information will be needed to complete the transaction. Usually, the customer will be asked to fill or select a shipping address, and the payment information such as credit card number. A notification is sent to the customer as soon as the order is placed. Now a days everything has become online from online booking of parking space, online education, ticket booking and also online marketing. but in some part of country online marketing is not held, still some production factories forwards are maintained the factory registers to an order, balance sheets are not maintained properly.

They cannot track orders and there is fraudulent in payments, small spelling mistake in inserting the addressing of the clients can misplace the products related to orders. factories are unable to showcase newly launched products there is difficulty in tracking order s or identifying user lots of miscommunication between the accountant and warehouse employee to conform the orders a behalf of owner.

In production factory the enlist all the products in different register related to their categories. they receive orders calls and message, payment received through online are in cash, accountant maintain the records of transaction mode through online system an accounting register. After receiving payments confirmation from accountant, they dispatch the particular order to customers by hand written address and the package. To resolve fraudulent problem and make all the process easier, we have introduced Online Shopping System with Targeted Advertisement using Token and Encrypted Feedback**.**

2. LITERATURE SURVEY:

New emerging technology has led to astounding inventions. The main objective of this project is to identify the customer satisfaction towards the product. Descriptive research was used in this project. The project was based on the customer satisfaction of the product and performance of the customer to identify the competitors to provide suggest and to improve the quality of product. Now a days customers are facing lots of problems like they must go physically to the shop to buy the things and sometimes it gets closed or remain out of stock. So, we are launching this app to satisfaction of customers need.[1]

The main purpose of this project is to demonstrate the incorporation of RFID technology which will not only make the billing easier but will also improve customer experience. The motive of this innovative system is to make shopping more comfortable for the customer. To track the order the customers this web application will provide an order number per order same as the common process of sone online shop. The application has a simple online marketing app for upgrade business level.[2]

In this era of internet, e-commerce is growing by leaps and bounds keeping the growth of brick-and-mortar businesses in the dust. In many cases, brick-and-mortar businesses are resorting to having a counterpart which is internet or e-commerce driven. People in the developed world and a growing number of people in the developing world now use ecommerce websites on a daily basis to make their everyday purchases. Still the proliferation of e-commerce in the underdeveloped world is not that great and there is a lot to desire for. This paper outlines different aspects of developing an ecommerce website and the optimum solution to the challenges involved in developing one. It consists of the planning process, which starts with determining the use case, domain modeling and architectural pattern of the web application. The entire development process is primarily divided into two parts: the front-end development and the back-end development. The database design is also discussed with an emphasis on its relational connectivity [3]

In the paper, the job shop on-line scheduling problem with random release date is taken into consideration. For the problem, the discrete event-driven model is set np. On this basis, the simulation expert system is developed on the platform of G2. By dynamically exploiting the dispatching rule according to the state of each machine in the system, the system realizes the job scheduling and the simulation result is given at last.[4]

This system gives solution to reduce the shopping time at supermarkets. Every supermarket employs shopping trolley in order to aid customers to select the products

which they intend to purchase. At billing counter customer may face many problems like waiting and don't know even they have sufficient money for the products they purchase. The billing process at the counter is a time consuming and also need more human resource in the billing section. To tackle this problem, we have proposed a solution in which a smart shopping cart is used to overcome these problems. It has Barcode scanner and touchscreen display, which can be used to scan the products and display the product information, cost and total bill. The customer can pay the bill through any one of online payment options such as Paytm, UPI, Phone Pay etc. This solution will increase the consumer experience and reduces the shopping time.[5]

Human Computer Interaction systems have access to the valuable resource of information that can be collected directly from users of these systems and services. This idea has become a part of the design process for systems that touch users' perceptions - here, in the field of online advertising and marketing. This research paper discusses a revisited design for an adaptive online advertisement system called My Ads. The methodological approach used for proposing a new design was the focus group methodology, due to the fact that it produces concrete ideas that are needed at this stage of the research. The main outcomes of the experiment agreed on using Amazon as a motivational blueprint for the new design and generated a list of requirements from users, in order for their acceptance level of personalized online advertisements to increase.[6]

This paper presents the design of a database system for a clothing store using PHP code and MySQL database that performs search functions for selected products. There will be a concentration on the administrator and employee login where they can access specific items in their inventory, and check who signed up for different opportunity the store offers. The system will also give customers a chance to see the clothes and see the sign up for the different opportunities. [7]

3. PROBLEM STATEMENT:

3.1 Problem Statement:

In industry the register-based system is used to manage orders, payments and it is difficult to maintain balance sheet. There are more chances of misplacements of products related to orders. The owners unable to showcase newly launched products to consumer. Possibility of fraudulent in payments. Unable to track or identify user and orders. Lots of miscommunication between the accountant and the warehouse employee to confirm the order behalf of owner.

E-commerce marketplaces often charge hidden costs after the purchase is finalized by the consumer. Websites hide tax charges, additional shipping and handling charges from consumers till purchases are finalized. Websites also add an option for consumers to buy products of a particular amount to waive off the shipping charges, however, sellers add additional charges even on purchases worth more than the set amount. A consumer complaint can be filed in such case, with the help of a consumer protection lawyer.

There are lot of online shopping problems faced nowadays. Many consumers become victims to online payment issues. Even though there are several payment methods like Net Banking, Credit or Debit Card payments and even Cash-on-delivery, there are payment failures due to website's server error, payment gateway error or issues with One Time Password (OTP). Technical glitches often deduct the payment from buyer's account or card, but the website does not receive the payment.

3.2 Existing System:

- On the basis of production, they enlist all the products in different register related to their categories.
- They receive orders on call or messages. Payments received through online or in cash.
- Accountant maintain the record of transactions made through online system on accounting register.
- To maintain the register lots of paper work required.
- After receiving payment, accountant confirms the order and dispatch the particular order to the customer by hand written address on the package.
- Products are often lost or damaged while in transit, and order tracking systems are unable to accurately locate the product.
- People choose the same-day. one-day or two-day delivery, paying extra money to get their product delivered.

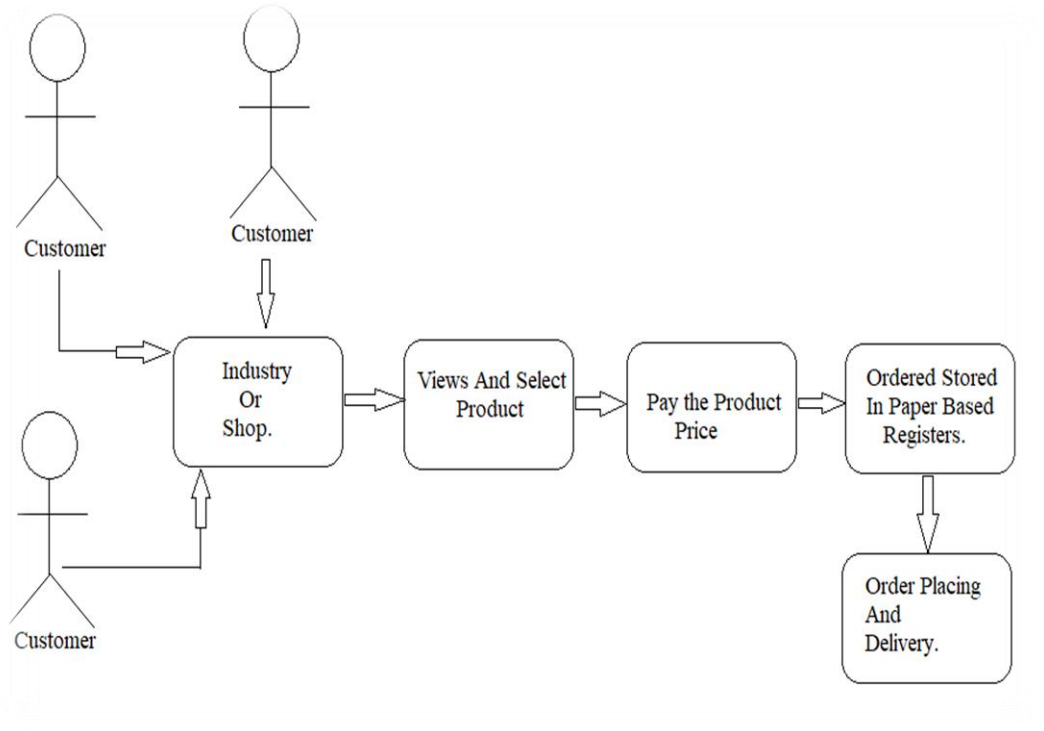

Fig.3.2 Existing System

3.3 Proposed System:

- This Web Application has been proposed to a Masala Industry to manage its customer's orders.
- The main purpose of the application is digitalization in marketing.
- This application will store all the data related to orders and payment.
- The payment gateway gives security in transactions.
- The consumers will get notifications of newly launched products and offers.
- The payment history of wholesalers, retailers and the consumers will be sorted separately.
- The owner can track the user and orders.

3.4 Need of Present Work:

The main purpose of the system is digitalization in marketing. This system will store all the data related to orders and payment. The consumers will get notifications of newly launched products and offers. The payment history of wholesalers, retailers and the consumers will be sorted separately. The owner can track the user and orders.

4. SYSTEM DESIGN:

4.1 System Architecture:

A system architecture is the conceptual model that defines the structure, behavior and more view of a system. An architecture description is a formal description and representation of a system, organized in a way that supports reasoning about the structure and behaviors of the system. An architecture diagram is a diagram that depicts a system that people use to abstract the software system's overall outline and build constraints, relations and boundaries between components. It provides a complete view of the physical deployment of the evolutions roadmap of the software system.

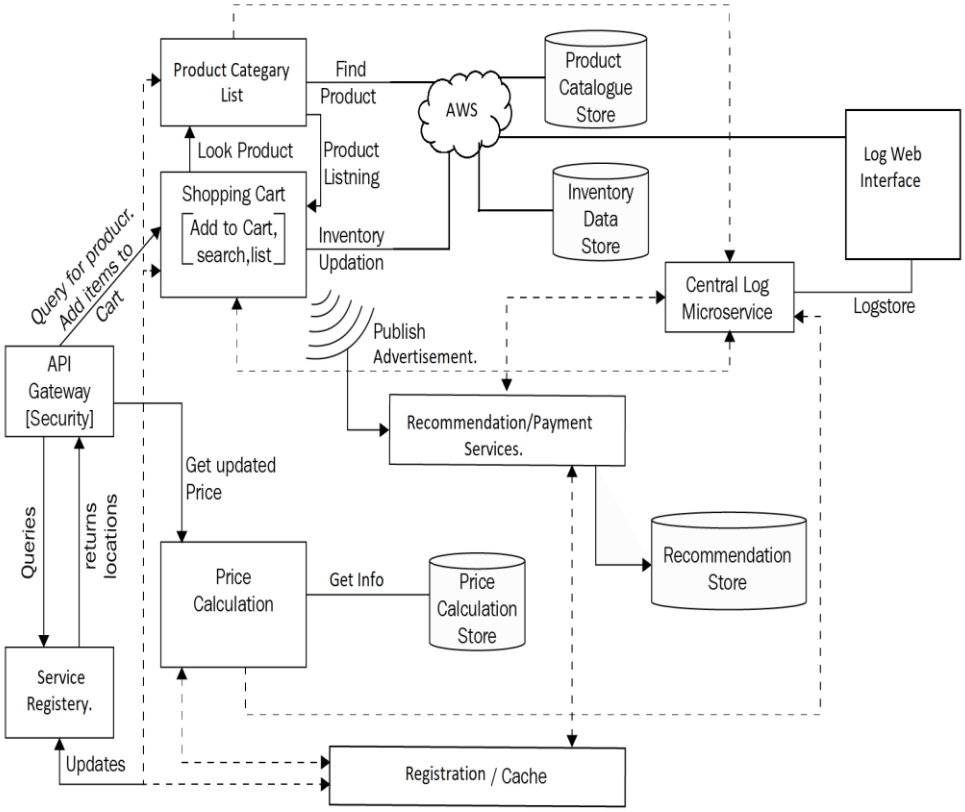

Fig.4.1 System Architecture

This system architecture represents Online Shopping System with Targeted Advertisement Using Token and Encrypted Feedback. This architecture consists of main modules client side, admin side, payment gateway, AWS, advertisement module. Client has the rights to view the product list with detail const and can order the product. Admin has right to add the new product launch with price and give offer season wise. Order is managed in admin side where admin can view (previous orders, pending orders and deliver orders) and maintain order status. We need to run our server to store the data related to product, orders etc. For managing the data, we use AWS cloud.

4.2 Modules:

4.2.1 Admin side:

- Firstly, admin need to register his details like email phone number, password, address.
- After successfully registration he need to login by putting the email/mobile number and password.
- After login they will get dashboard, where they can see users (name, contact, rate).
- On that dashboard he can upload product details like name of product, quantity, weight, image, video, description, rate.
- They on put product details category while (veg, non-veg, premix, and view all).
- They can also upload advertisement like title, images and videos time of sale.
- Verifications are sent to client from admin that order has been displaced or confirm order and if new product is launched the client get notification.
- Admin can see the order list date/month/year wise, sort wise and status. till now how many orders have been confirmed.
- Orders like recent orders, confirm order, canceled orders and pending orders.
- There will be tabs like wholesaler, retailer, consumer based on this main tab's admin can choose the category and upload.
- Admin can also upload terms & condition and privacy.

4.2.2 Client side:

- We will have registration for new customers.
- In that we need to choose wholesaler, retailer, consumer.
- Based on the selection of the customer they need to upload their license.
- Add the shop address, pin code, state, city.
- They need to set password.

4.3 Flowchart:

A flowchart is a diagram that represents a set of instructions. Flowcharts normally use standard symbols to represent the different types of instructions. These symbols are used to construct the flowchart and show the step-by-step solution to the problem. In the Admin side flowchart, the admin needs to start the system firstly he needs to register and then login. Every time he need not have to register, login and start the system then admin side system will have dashboard from where the admin manages category, manage item, orders (pending orders, completed orders, ordered history). Manage payment, manage advertisement, manage feedback and admin can log out.

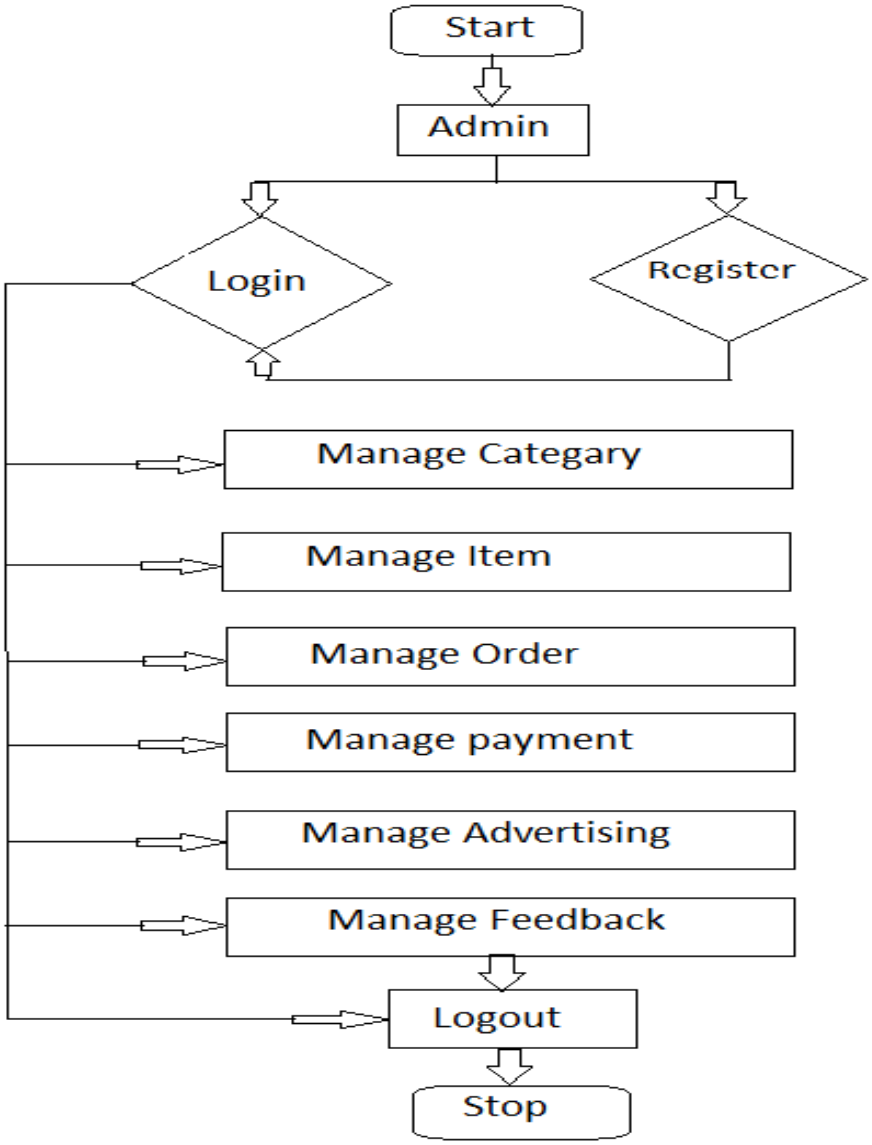

Fig.4.3 Admin Side Flowchart

Client side: In above figure client-side flow chart. The client starts the system and goes to the login page and if the client is new then he needs to create the account by registration there and after successfully registration user need to log in and submit it the home screen or dashboard screen is displayed, here the user needs to select item, add to cart and pay for the product. Through net banking and if there is report occurred then it goes back to payment screen. Then after order configuration. Feedback screen comes and the user can logout.

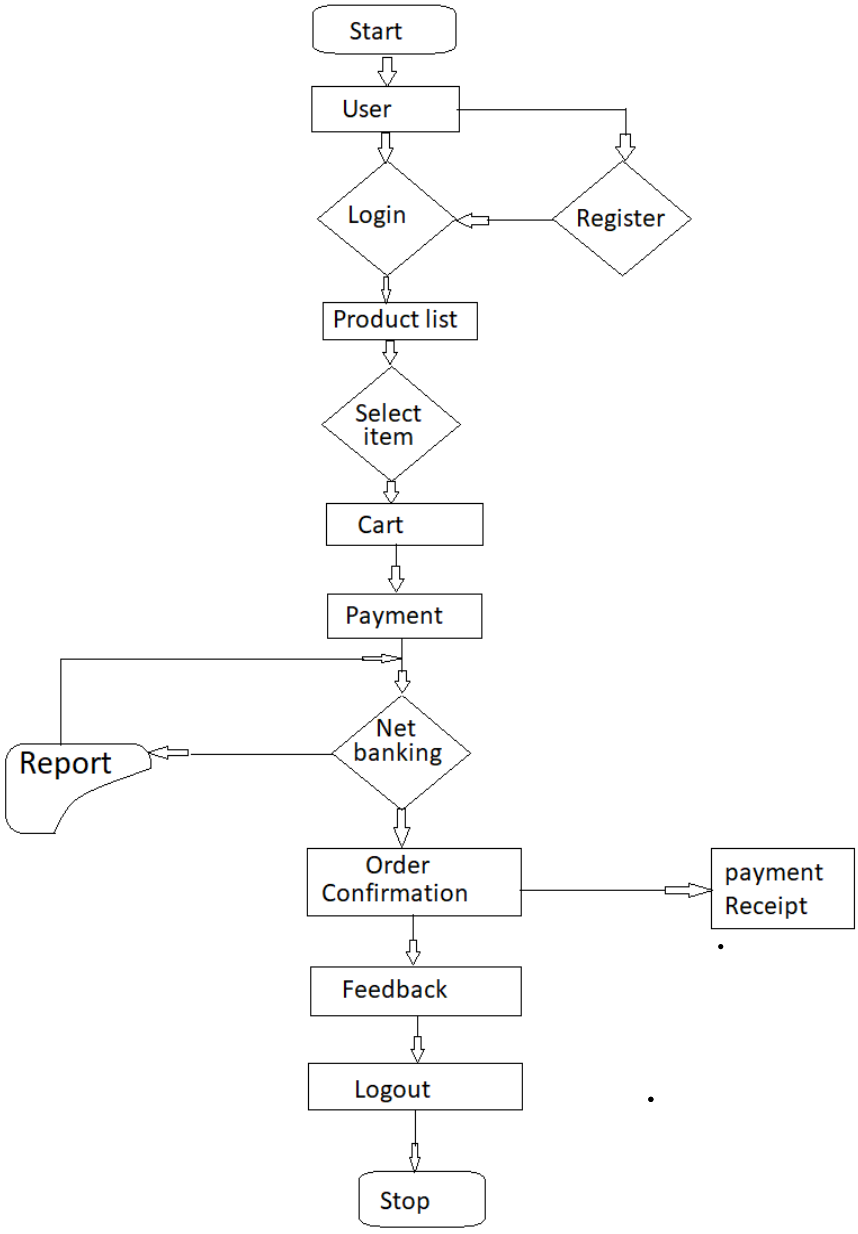

Fig.4.3.1 Client-Side Flowchart

4.4 Data Flow Diagram:

4.4.1 Level 0 DFD:

Level 0 DFDs also go by the name of context diagrams. This is the most pared-back form, and it shows only a single process and its external influences. At this stage, it's common to draft the DFD by hand while the processes are unrefined. In below diagram online shopping system consists clients order, product transfer, data entry, notification, management report like modules.

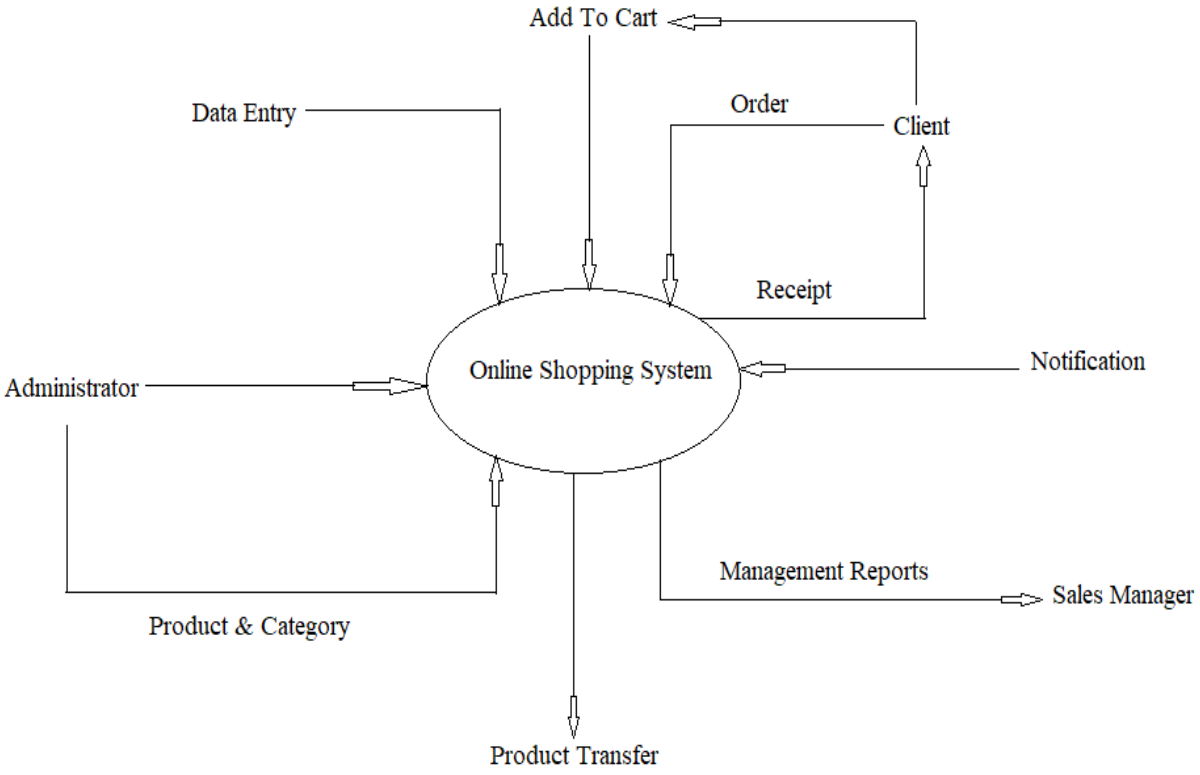

Fig.4.4.1 Level 0 DFD

4.4.2 Level 1 DFD:

A level 1 DFD is still considered very top-level, but it offers more detail than a level 0 DFD. It consists of a single process, which is broken down into sub-processes. These, in turn, are linked by different processes and data stores. Online shopping system is the main process here and divided into sub processes. It starts from login facility, then selecting products, save to cart and then getting notification to the client. Advertisement module also included here.

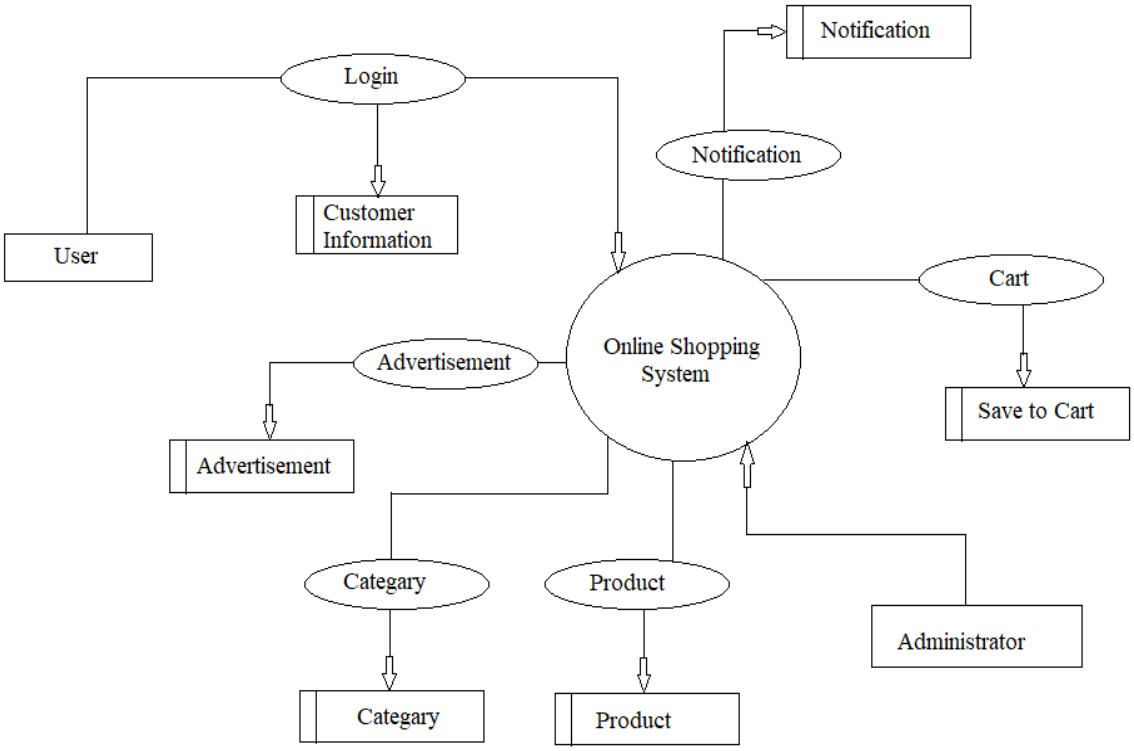

Fig.4.4.2 Level 1 DFD

4.5 ER Diagram:

Entity Relationship Model is a graphical approach to a database design. An entity-relationship model describes interrelated things of interest in a specific domain of entity types and specifies relationship that can exist between entities. ER diagrams are used to sketch out the design of a database. The ER model can be easily converted into a relational database.

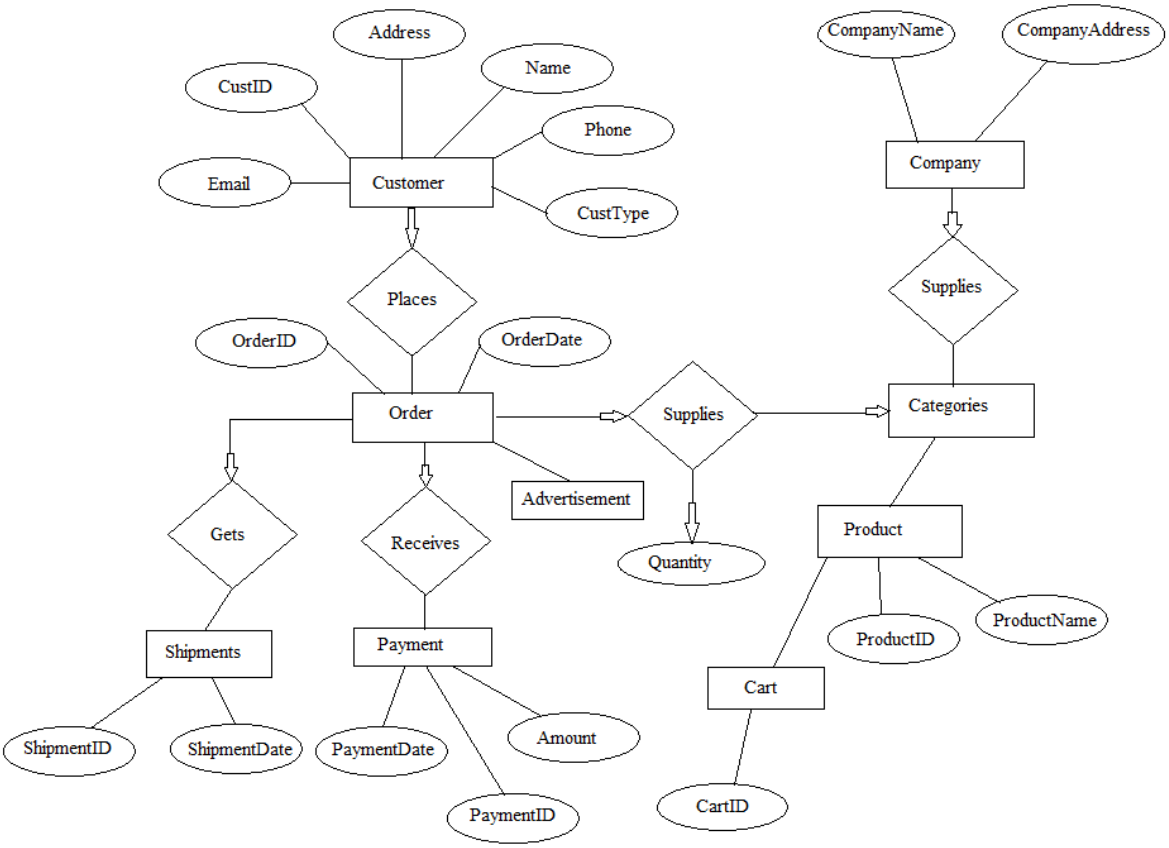

Fig.4.5 E-R Diagram

4.6 Use-Case Diagram:

A use case diagram is a graphical depiction of a user's possible interactions with a system. A use case diagram shows various use cases and different types of users the system has and will often be accompanied by other types of diagrams as well. The use cases are represented by either circles or ellipses. For a particular scenario of a use case, the diagrams show the events that external actors generate, their order, and possible inter-system events.

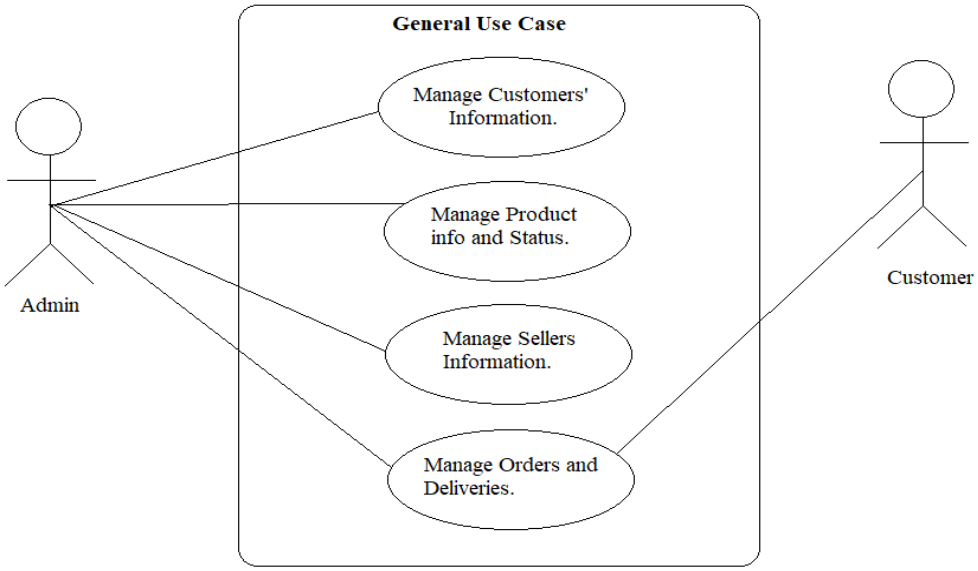

Fig.4.6 Use-Case Diagram

4.7 Sequence Diagram:

A sequence diagram or system sequence diagram (SSD) shows object interactions arranged in time sequence in the field of software engineering. It depicts the objects involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of scenario. Sequence diagrams are typically associated with use case realizations in the logical view of the system under development. Sequence diagrams are sometimes called event diagrams or event scenarios.

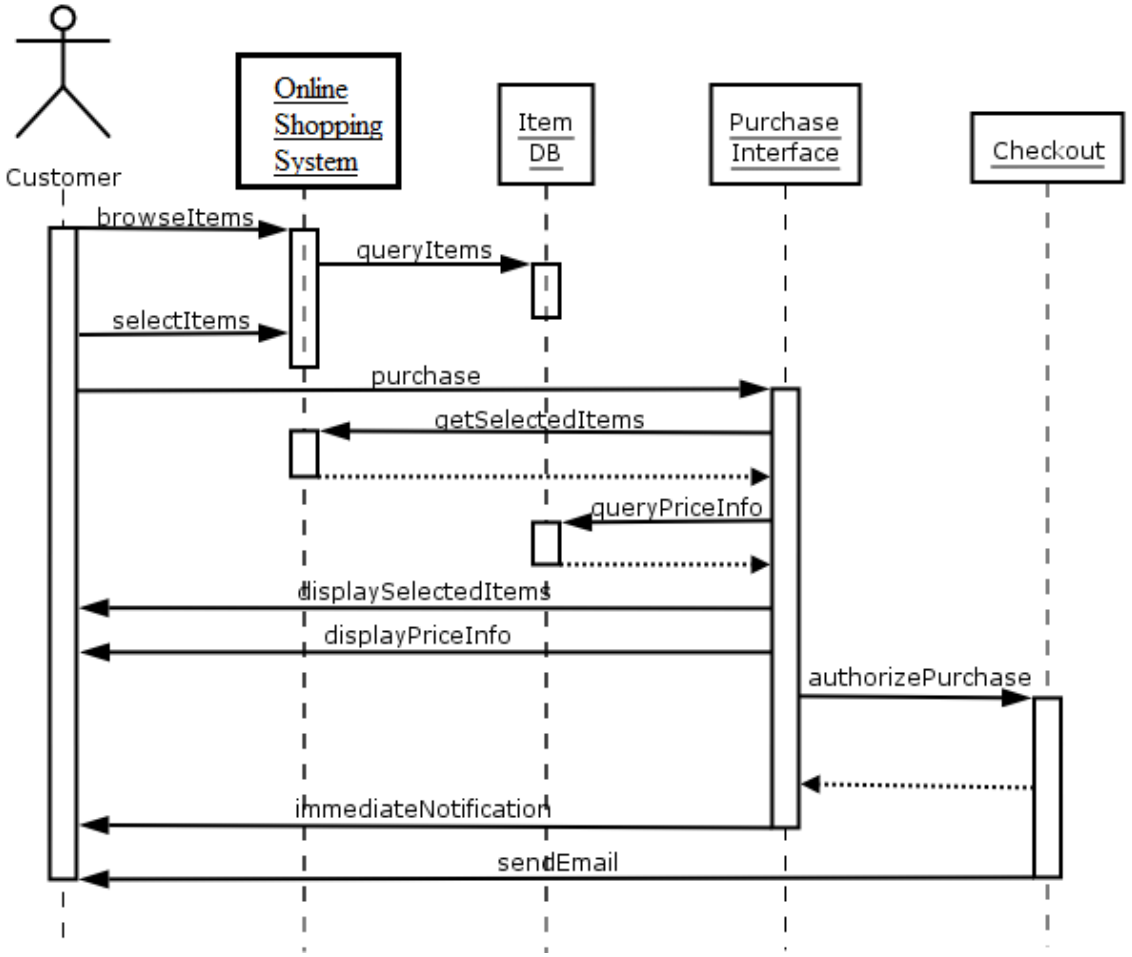

Fig.4.7 Sequence Diagram

5. IMPLEMENTATION AND EXPERIMENTAL SETUP:

5.1 Implementation:

Installation of React Native:

Installing dependencies: -You will need Node.js, React Native Command Line Interface, JDK and Android Studio.

- Node and jdk8 can be installed via Chocolatey, a popular package manager for windows.
- Open Administrator Command Prompt, then run the command:

choco install -y nodejs. install openjdk8

You can install Node and JDK separate

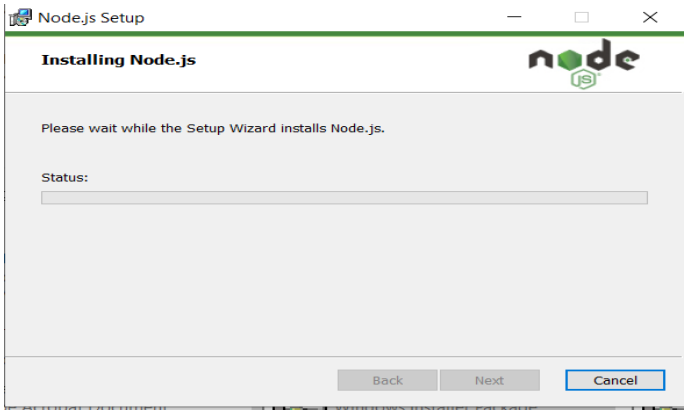

Fig.5.1.1 Installation of Node.js

Install Android Studio

Android Studio installs the latest Android SDK by default

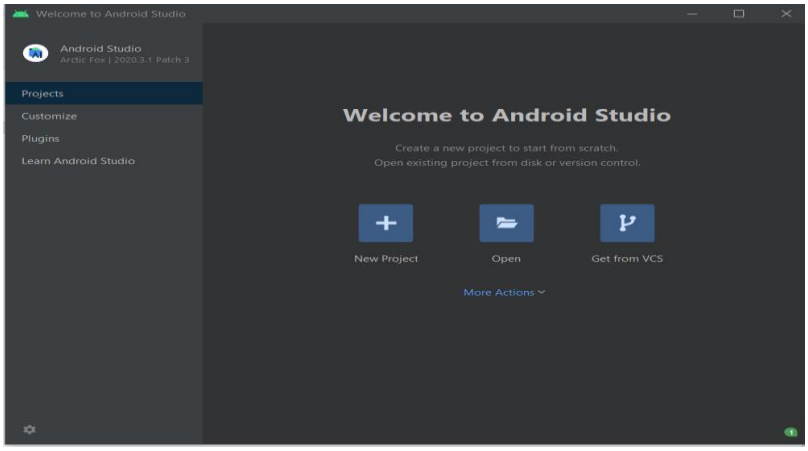

Fig.5.1.2 Installation of Android studio

For building a React Native app with native code,we require the Android 10 (Q) SDK in particular. Additional Android SDKs can be installed through the SDK Manager in Android Studio.

➔ In More Actions you need to select SDK manager

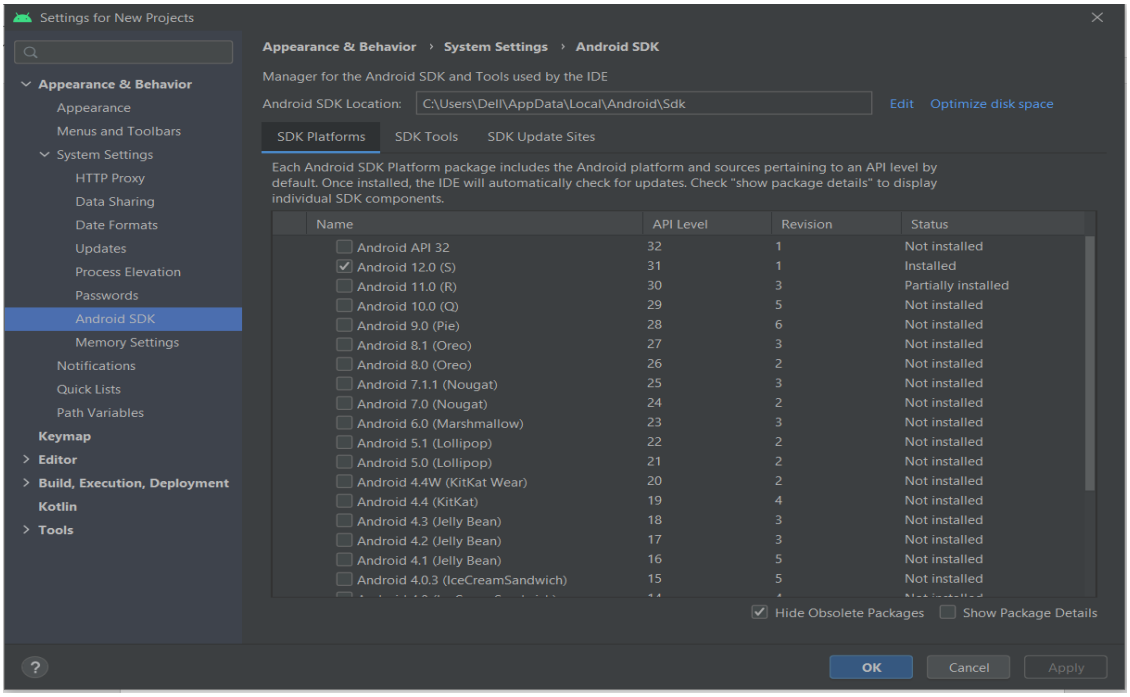

Fig.5.1.3 SDK Setup

This screen will be displayed here in SDK Platforms you need to choose

- Android 10 (Q)
- Intel x86 Atom_64 System Image or Google APIs Intel X86 Atom System Image

After selecting this we need to copy the Android SDK Location and set it in Environment Variables

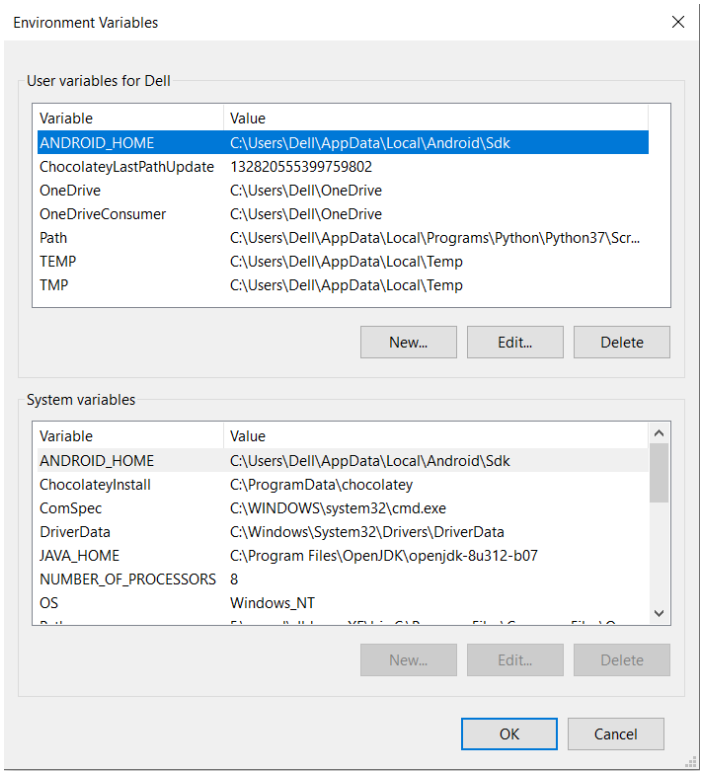

Fig.5.1.4 Environment variable set up

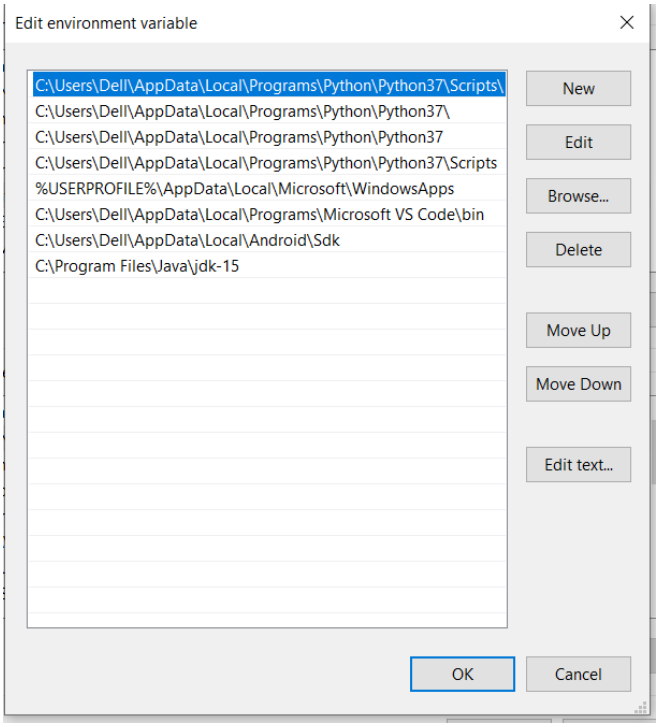

Fig.5.1.5 Path Setting

Open Windows PowerShell where you can use multiple Tabs
First, we need to create new project
React Native has a built-in command line interface, which you can use to generate a new project.

npx react-native init NewProjectName

eg: npx react-native init UshaVahiniApp

You can start a project with a custom React Native template like TypeScript with –template argument:

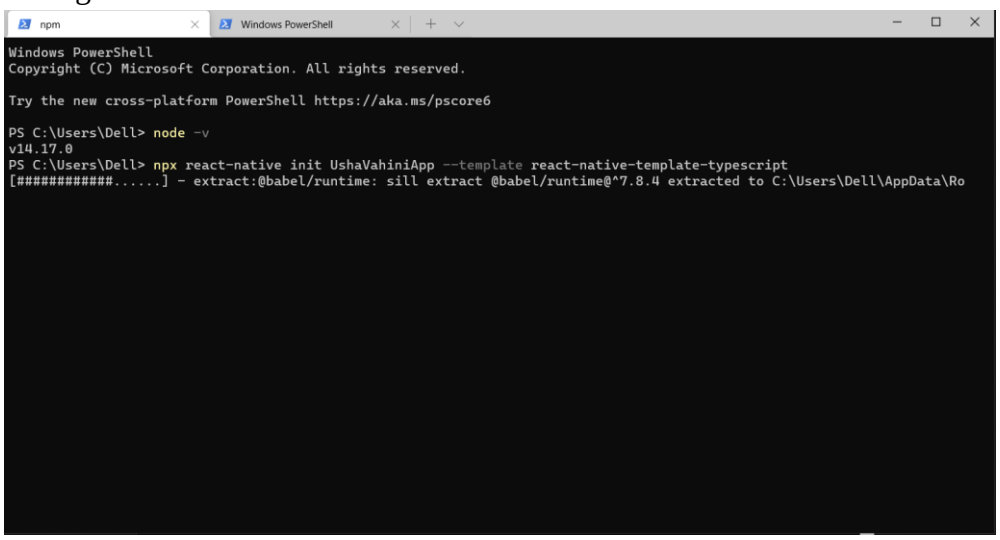

Fig.5.1.6 Installing packages of react native

Preparing Android device

You will need an Android device to run your React Native Android App. This can be either a physical Android device or use an Android Virtual Device (emulate on your computer).

If you are using physical Android Device then connect it with USB cable to your computer, make a note that your mode is on debugging mode and file transfer mode.

Running Your React Native Application

Step 1: Start Metro

First, you will need to start metro. Metro "takes in an entry file and various options, and returns a single JavaScript file that includes all your code and its dependencies."

To start metro run npx react-native start inside your React Native project folder:

Step 2: Start your application

Let Metro bundler run in its own terminal, open a new terminal inside a React Native project folder.

And run npx react-native run-android

The application will be created in the mobile.

Fig.5.1.7 Output on mobile

Installation of NodeJS:

- Download the node.js installer from the link.[15]
- The Node.js installer includes the NPM package manager.
- Verify Installation:
- Open a command prompt (or PowerShell), and enter the following command.

>node -v

- The system should display the Node.js version installed on your system. You can do the same for NPM:

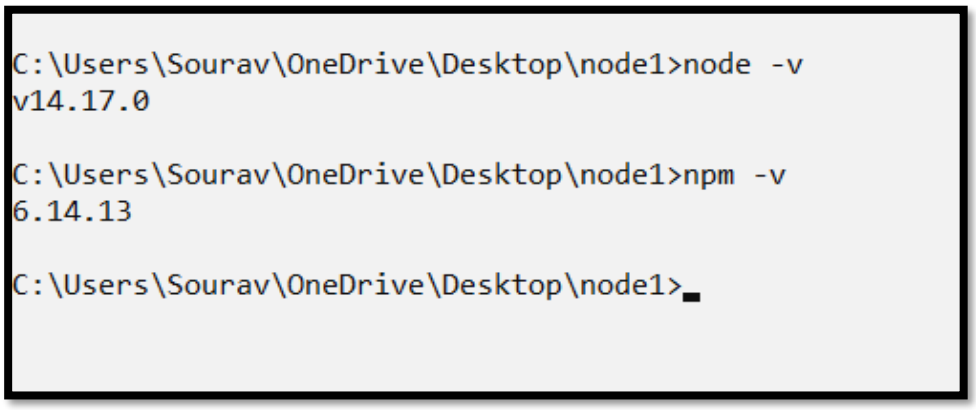

Fig.5.1.8 Node.js version

Installation of Mongodb:

- Download Mongodb zip file from below link. https://www.mongodb.com/try/download/community

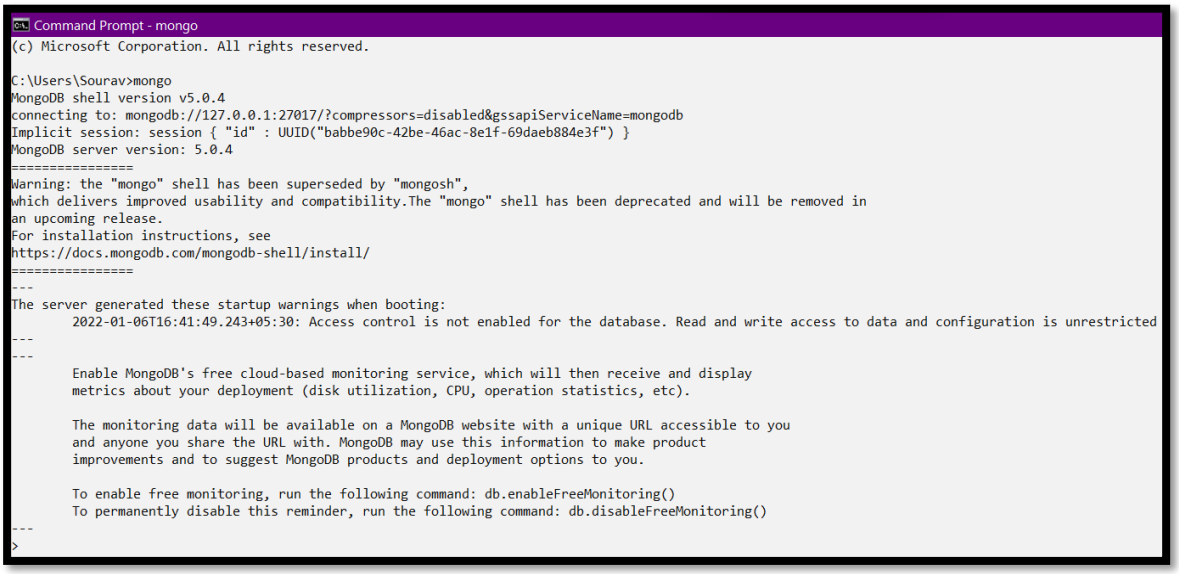

Fig.5.1.9 Mongodb shell

5.2 TOOL:

React-Native

React Native (also known as RN) is a popular JavaScript-based Mobile app Framework. React Native is the progressive technology solution that provides creative methods for modern hybrid mobile app development to save money, stand out and be user-friendly.

React Native base

Native base is a component library that enables to build universal design system. It is built on top of react native, allowing you to develop apps for Android, iOS and web. Native base ships with a default theme that provides beautiful components, out of the box. Native base library is used for de signing the apps and web. You need to install the library first. You can also customize specific components for your app needs.

React Navigation

React Navigations native stack navigator provides a way for your app to transition between screens and manage navigation history. If your app used only one stack navigator then it is conceptually similar to how a web browser handles navigation state, your app pushes and pops items form the navigation stack as users interact with it, and this results in the user seeing different screens. React Navigation's native stack navigator provides the gestures and animations that you would expect on Android and iOS when navigating between routes in the stack. You need to install the library require for navigation.

React Native Reanimation

Reanimation library enables you to create animations and interactions that run on UI thread for improved performance and interactive Ness of your app.

Node.js

Node.js is an open-source, cross-platform, back-end JavaScript runtime environment that runs on the V8 engine and executes JavaScript code outside a web browser. Node.js lets developers use JavaScript to write command line tools and for server-side scripting running scripts server-side to produce dynamic web page content before the page is sent to the user's web browser. Consequently, Node.js represents a "JavaScript everywhere" paradigm, unifying web-application development around a single programming language, rather than different languages for server-side and client-side scripts.

6. EXPERIMENTAL RESULTS:

6.1 Results:

Fig.6.1.1 Login page

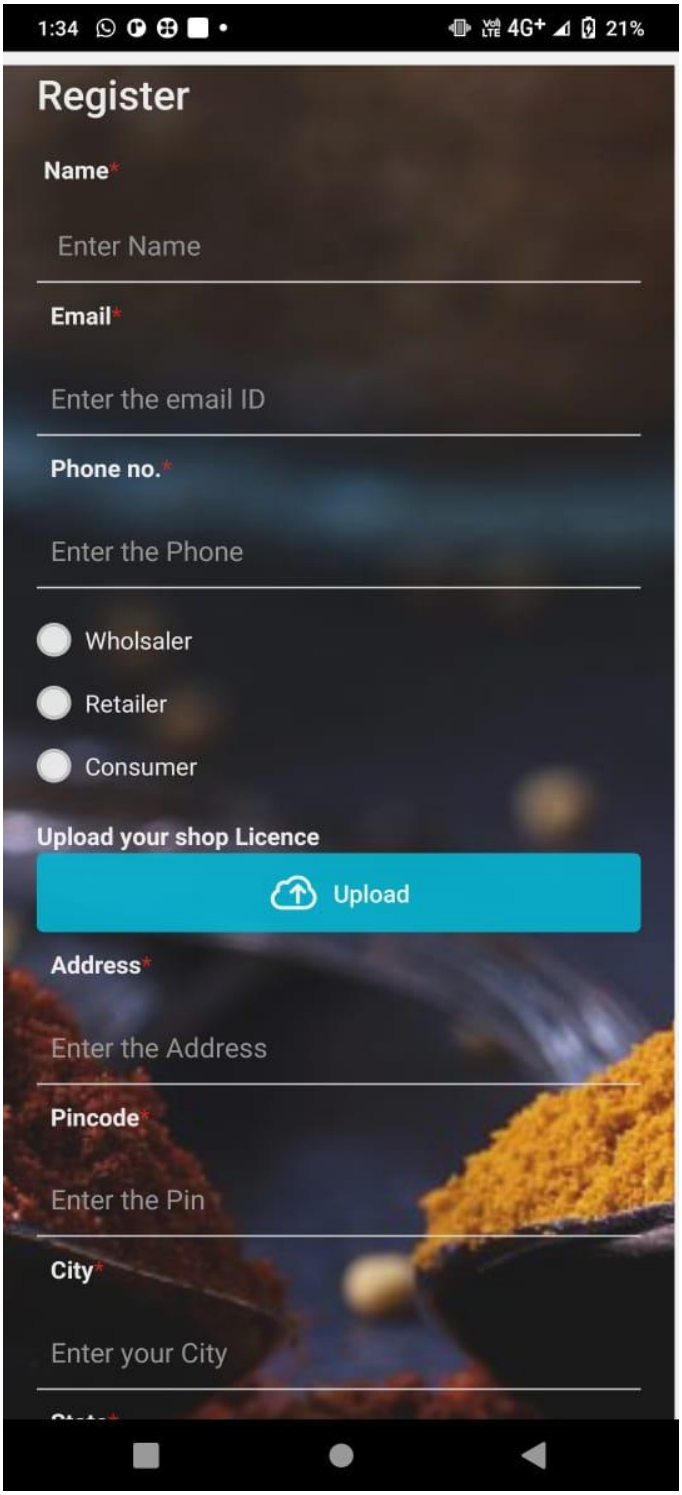

Fig.6.1.2 Registration page

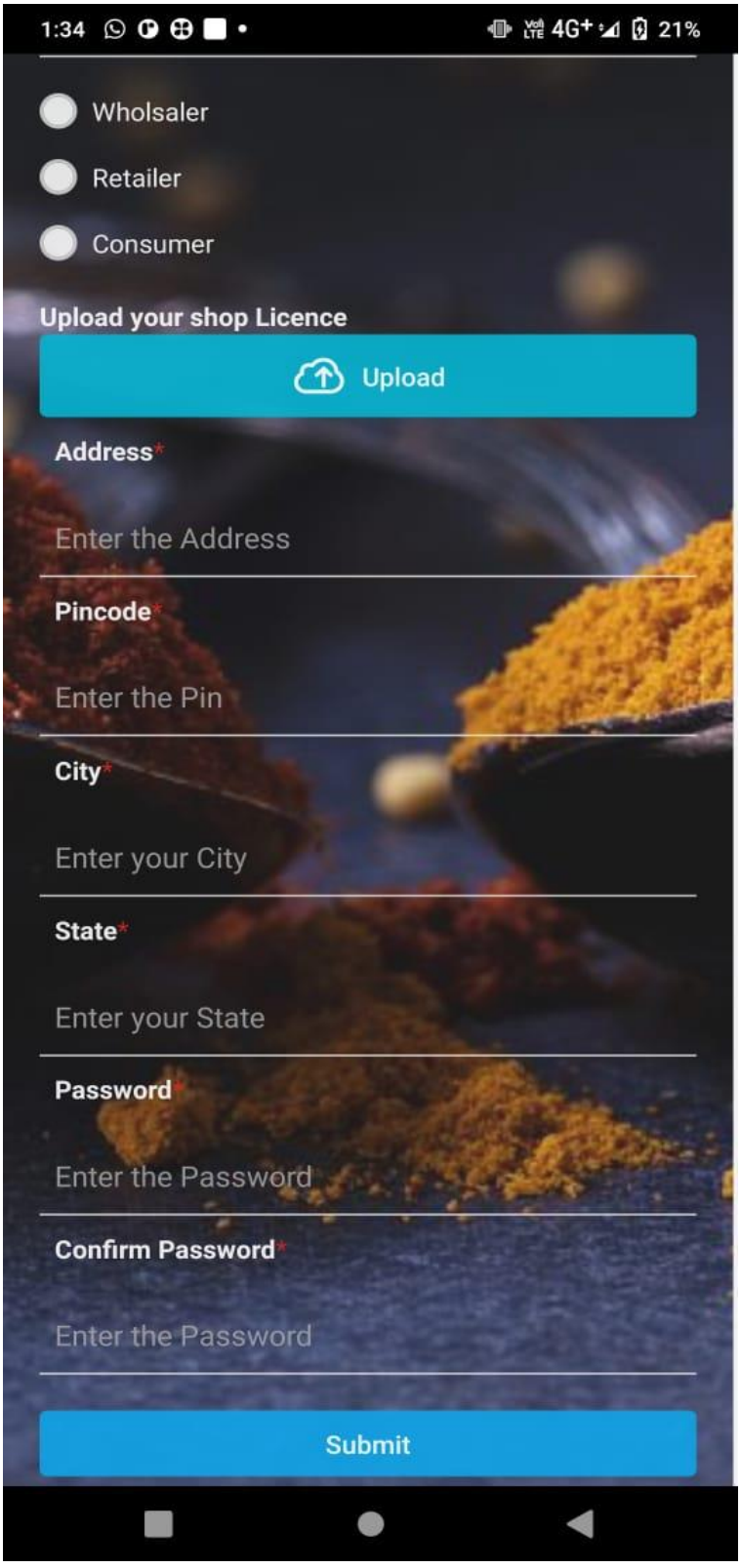

Fig.6.1.3 Registration page

Post method: Using this method we can enter as new user and then token will be generated.

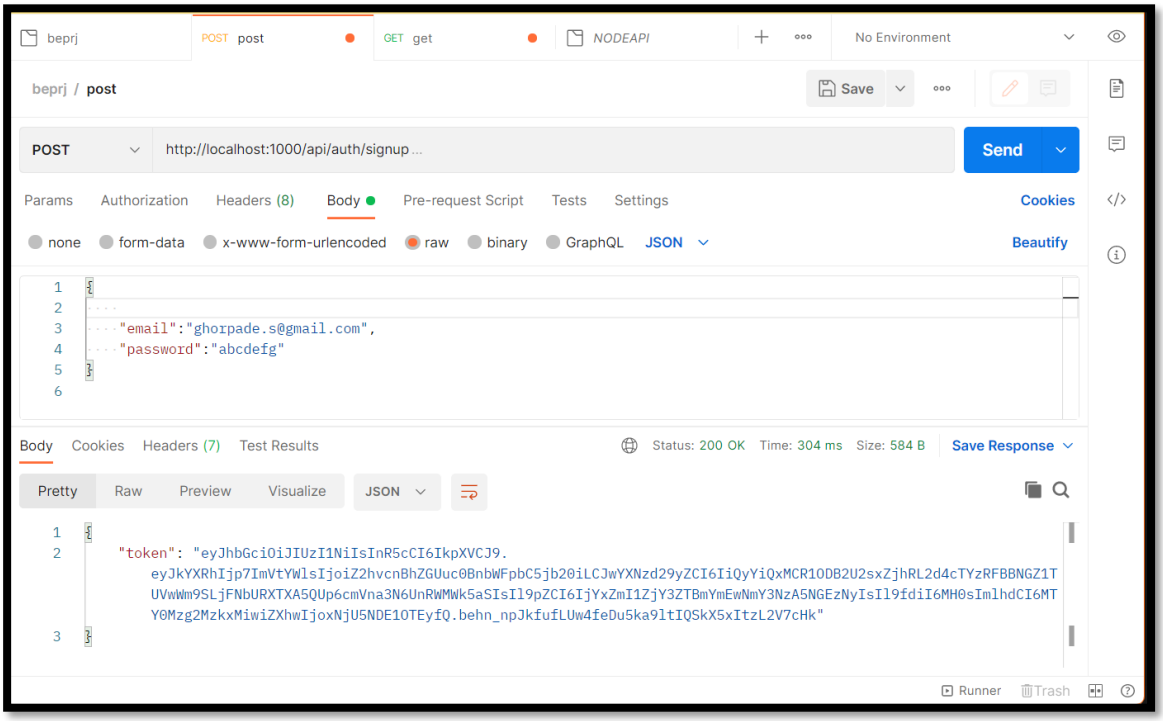

Fig.6.1.4 Post method using Postman

Get method: Using this get method we can verify the user i.e. we can check entered user is registered or not.

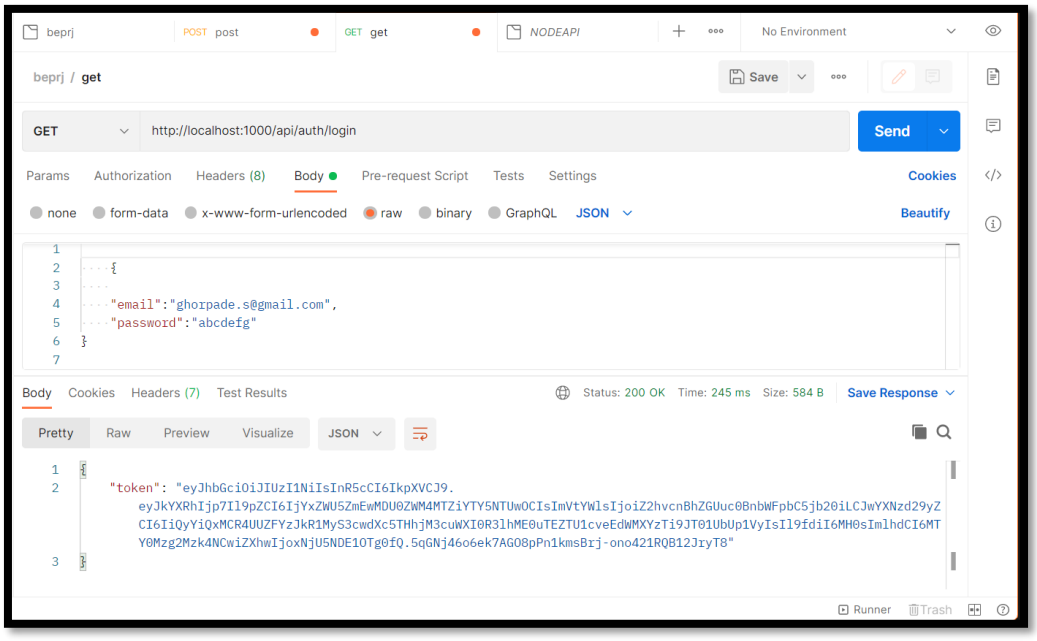

Fig.6.1.5 Get method

CONCLUSIONS

- The proposed system reduces the frustration of manual work of the workers in Wearhouse like register-based system.
- This smart online system increases the service levels in operations like providing online ordering system with providing updates of the newly launched products and token base advertisement system.
- The proposed system reduces the frustration of manual work of the workers in Wearhouse like register-based system. This smart online system increases the service levels in operations like providing online ordering system with providing updates of the newly launched products and token base advertisement system.

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