

# **GLA University, Mathura-2020**

## **Mini Project Report**



### **TEAM DETAILS**

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**Project Name/Title: "Grossify"**

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# Synopsis

## Student Information:

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## Information about Industry/Organization:

Industry/Organization Name with full Address	Coursera – Build a Simple App in Android Studio with JAVA. Udemy – Java from Zero to first job:part-1 Online Training
Contact Person	<a href="https://www.coursera.org/learn/build-app-android-studio-java">https://www.coursera.org/learn/build-app-android-studio-java</a>

## Project Information:

Title Of Project/Training/Task	Grossify – Online Grossory App
Role & Responsibility	Student and Developer
Technical Details	Hardware Requirements: Processor- minimum 1 GHz, Recommended 2GHz or more. Network connection - LAN or a wireless adapter (Wi-Fi) Hard Drive – 500 GB or more Memory (RAM): 4 GB or above Processor-Dual-core or above  Software Requirements: Android Studio IDE Android and JAVA Language. Emulator and SDK environment more than 16.
Project Implementation Details	Fully Implemented
Project Period	Start Date: 10 <sup>th</sup> Aug,2020 End Date: 25 <sup>th</sup> Nov,2020 Duration: 3 - 4 Months

## Summary of the Project Work:

### **About the Project:**

Grossify is a real-time android application to shop online using android devices."

Android based application is an application that runs within the Android device via Internet with accessing the operating system of any individual cell phone.

The advantage of browser-based applications is that they can run on any versions of android. In today's era, we all are aware of our daily changing requirements and the need to shop as in the world of digital marketing.

Shopping the daily needs virtually is what when individuals interact without being face-to-face but through words and texts they sent or receive data to be shared. We can share information and the need can be delivered to us.

Shopping virtually make us elevate from being digitally literate to digitally fluent, collaborate using appropriate virtual tools and system and they are cost-effective and environment friendly too. So putting our efforts into this application, we are going to create "Grossify".

### **About the Website:**

**Objective:** - The main objective of this Project is to manage the details of Grocery, Customer, Order, Stock, Product. It manages all the information about Grocery, Address, Product, Grocery.

### **Technologies Used:**

- Android Studio IDE
- Android and JAVA Language.

### **Software Used:**

- Android Studio code Editor
- Android and JAVA Language.

### **FEATURES PROVIDED:**

- The App gives all the information about the grocery shop provides better services for customer.
- It provides the facility to the customer who wants to buy grocery products to lack of time.
- It provides facility to the customer to payment by the cash or Debit/Credit card or through Net banking.

### **Future Advancements And Scope:**

This system will reduce the manual operation required to take care of all the records of booking information. And also generates the various reports for analysis. Main concept of the project is to enter transaction reports and to take care of customer records.

### **REQUIREMENTS TO USE THE WEBSITE:**

A simple device – Smartphone/PC/Tablet or an Emulator and a SDK environment more than 16.

## CERTIFICATES





Nov 23, 2020

**Nidhi Jain**

has successfully completed

**Build a Simple App in Android Studio with Java**

an online non-credit course authorized by Coursera Project Network and offered through Coursera

Ken Carter  
Instructor

COURSE  
CERTIFICATE



Verify at [coursera.org/verify/ERJWYM3GYTZK](https://coursera.org/verify/ERJWYM3GYTZK)  
Coursera has confirmed the identity of this individual and their participation in the course.



Jun 24, 2020

**Jatin Agrawal**

has successfully completed

**Build a Simple App in Android Studio with Java**

an online non-credit course authorized by Coursera Project Network and offered through Coursera

Ken Carter  
Instructor

COURSE  
CERTIFICATE



Verify at [coursera.org/verify/GVL8P6F4ZUX](https://coursera.org/verify/GVL8P6F4ZUX)  
Coursera has confirmed the identity of this individual and their participation in the course.



Nov 23, 2020

**Rahul Saraswat**

has successfully completed

**Build a Simple App in Android Studio with Java**

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A handwritten signature in black ink that reads "Ken Carter".

Ken Carter  
Instructor

**COURSE  
CERTIFICATE**



Verify at [coursera.org/verify/KJFWCDBTGSKF](https://coursera.org/verify/KJFWCDBTGSKF)  
Coursera has confirmed the identity of this individual and their participation in the course.



## **INTRODUCTION**

The "Grossify App" has been developed to override the problems prevailing in the practicing manual system. This app is supported to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this app is designed for the particular need of the company to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user-friendly. This App as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources.

Every organization, whether big or small, has challenges to overcome and managing the information of Customer, Grocery, Stock, Address, Product. Every app has different Grocery needs, therefore we have designed exclusive employee management systems that are adapted to your managerial requirements. This is designed to assist in strategic planning, and will help you ensure that your organization is equipped with the right level of information and details for your future goals. Also, for those busy executive who are always on the go, our app has a remote access features, which will allow you to manage your workforce anytime, at all times. These systems will ultimately allow you to better manage resources.

## **ABSTRACT**

The purpose of "Grossify App" is to automate the existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with.

Grossify App, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.

The aim is to automate its existing manual system by the help of computerized equipment and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. Basically the project describes how to manage for good performance and better services for the clients.

## **Problem Statement:**

### **Q1.What we are creating?**

We are creating “A real-time android application to shop online using android devices.”

Android based application is an application that runs within the Android device via Internet with accessing the operating system of any individual cell phone.

The advantage of browser-based applications is that they can run on any versions of android.

### **Q2.What is our idea about?**

In today’s era, we all are aware of our daily changing requirements and the need to shop as in the world of digital marketing.

Shopping the daily needs virtually is what when individuals interact without being face-to-face but through words and texts they sent or receive data to be shared. We can share information and the need can be delivered to us.

Shopping virtually make us elevate from being digitally literate to digitally fluent, collaborate using appropriate virtual tools and system and they are cost-effective and environment friendly too.

So putting our efforts into this application, we are going to create “Grossify”.

## **Reason for Selecting Topic:**

The general reason is to portray a complete and detailed picture of the overall purchase decision making process of consumers shopping online for groceries, including pre- and post-decisional stages. Although providing a broad description of the overall decisional process, the intent is to focus on the actual purchasing stage, shedding some light onto two details of this process – the in- store buying and browsing strategies used by online grocery shoppers and their reaction to in-store changes.

This project is aimed at developing an android application that depicts online Shopping of grocery and purchasing using Payment Gateway. Using this software, we can improve the efficiency of their services of sales product.

Online Shopping is one among the applications to enhance the marketing of the company's products.

### **Objective:**

The main objective of this Project is to manage the details of Grocery, Customer, Order, Stock, Product. It manages all the information about Grocery, Address, Product, Grocery. The project is totally built at administrative end and thus only the administrator is guaranteed the access. The purpose of the project is to build an application program to reduce the manual work for managing the Grocery, Customer, Address, Order. It tracks all the details about the Order, Stock, Product.

- The App gives all the information about the grocery shop provides better services for customer.
- It provides the facility to the customer who wants to buy grocery products to lack of time.
- It provides facility to the customer to payment by the cash or Debit/Credit card or through Net banking.
- It's providing full details about the grocery product and related information about the product like cost, weight, and best before date etc.

### **Functionalities provided :**

- Provides the searching facilities based on various factors. Such as Grocery, Order, Stock, Product • Online Grocery Ordering System also manage the Address details online for Stock details, Product details, Grocery. • It tracks all the information of Customer, Address, Stock etc • Manage the information of Customer • Shows the information and

description of the Grocery, Order • To increase efficiency of managing the Grocery, Customer • It deals with monitoring the information and transactions of Stock. • Manage the information of Grocery • Editing, adding and updating of Records is improved which results in proper resource management of Grocery data. • Manage the information of Stock • Integration of all records of Product.

## **METHODOLOGY:**

As stated earlier the general aim of this dissertation is to develop, as accurately as possible, an overall image of the consumers' decision making process for online grocery shopping.

The objective is to provide a broad description of the overall process, from the pre-decisional to the post-decisional phase, however being the intent to then focus on the actual decisional stage. Within the decisional phase, two details take particular consideration – the buying/browsing strategies used by online grocery shoppers and their reaction to in-store stimuli.

However, as indicated in the preceding chapters, the body of research on online grocery shopping is not particularly extensive, with the majority of studies tending to focus on the drivers of adoption of such consumption behaviour, rather than on the actual in-store decision making process of shoppers – with a few exceptions, however mostly for generalized online shopping

As such, the appropriate method to empirically investigate the research questions established is an exploratory research approach, given that this approach is the most commonly used when there's a need to increase or clarify the understanding of a problem.

Furthermore, and as in the case of this dissertation, this type of approach is particularly useful when existing theories are insufficient or

contradictory, when important concepts and its interrelationships are hard to establish and/or when an area of investigation is hard to differentiate from others.

### **Scope of the project :**

It may help collecting perfect management in details. In a very short time, the collection will be obvious, simple and sensible. It will help a person to know the management of passed year perfectly and vividly. It also helps in current all works relative to Online Grocery Ordering System. It will be also reduced the cost of collecting the management & collection procedure will go on smoothly.

Our project aims at Business process automation, i.e. we have tried to computerize various processes of Online Grocery Ordering System.

- In computer system the person has to fill the various forms & number of copies of the forms can be easily generated at a time. In computer system, it is not necessary to create the manifest but we can directly print it, which saves our time. - To assist the staff in capturing the effort spent on their respective working areas. • To utilize resources in an efficient manner by increasing their productivity through automation. •

The system generates types of information that can be used for various purposes. • It satisfy the user requirement Be easy to understand by the user and operator • Be easy to operate • Have a good user interface • Be expandable Delivered on schedule within the budget.

## **Scope for extension in Major Project:**

This system will reduce the manual operation required to take care of all the records of booking information. And also generates the various reports for analysis. Main concept of the project is to enter transaction reports and to take care of customer records. Hence this software can be used in any mobile or devices to maintain their record easily. The data is directly stored in the database. This system allows to the customers to maintain cart for add or remove the product over the internet. The online shopping system well design database can help the management guide customers.

## **Input Data and Validation of Project :**

- All the fields such as Grocery, Order, Product are validated and does not take invalid values
- Each form for Grocery, Customer, Address can not accept blank value fields
- Avoiding errors in data
- Controlling amount of input
- Integration of all the modules/forms in the system.
- Preparation of the test cases.
- Preparation of the possible test data with all the validation checks.
- Actual testing done manually.
- Recording of all the reproduced errors.
- Modifications done for the errors found during testing.
- Prepared the test result scripts after rectification of the errors.

- Functionality of the entire module/forms.
- Validations for user input.
- Checking of the Coding standards to be maintained during coding.
- Testing the module with all the possible test data.
- Testing of the functionality involving all type of calculations etc.

### **Features :**

- Product and Component based
  - Creating & Changing Issues at ease
  - Query Issue List to any depth
  - Reporting & Charting in more comprehensive way
  - User Accounts to control the access and maintain security
  - Simple Status & Resolutions
  - Multi-level Priorities & Severities.
- 
- Targets & Milestones for guiding the programmers
  - Attachments & Additional Comments for more information
  - Robust database back-end
  - Various level of reports available with a lot of filter criteria's
  - It contain better storage capacity.
  - Accuracy in work.
  - Easy & fast retrieval of information.



- Well designed reports.
- Decrease the load of the person involve in existing manual system.
- Access of any information individually.

### **Project Requirements;**

- System needs store information about new entry of Grocery.
- System needs to help the internal staff to keep information of Customer and find them as per various queries.
- System need to maintain quantity record.
- System need to keep the record of Order.
- System need to update and delete the record.
- System also needs a search area.
- It also needs a security system to prevent data.

### **Identification of need :**

The old list manual system was suffering from a series of drawbacks Since whole of the system was to be maintained with hands the process el keeping, maintaining the information was very tedious and lengthy.

The records WOT never toed 10 be in a systematic order. there used to be lots of difficulties in assuming any particular transaction with a particular contest. At any information was to be found It was required to go through the afferent registers, documents there would never exist anything Re report generation. There would always be unnecessary consumption tone while entering records and retrieving records.

One more problem was that it was very clam\* to find errors while entering the records. Once the records were entered it was they difficult to update these records.

The reason behind 4 a that there SS lot of information lo be maintained and have to be kept in and while running the business For this reason we have provided features Present system a partially automated (computed actuary existing system is quite laborious as one has to enter same infuriate." at three different places.

### Following Points should be well considered

- Documents and reports that must be provided by the new system: there can also be few reports, which can help management in decision-making and cost controlling, but since these reports do not get required attention, such kind of reports and information were also identified and given required attention.
- Details of the information needed for each document and report.
- The required frequency and distribution for each document.
- Probable sources of information for each document and report.
- With the implementation of computerized system, the task of keeping records in an organized manner will be solved.
- The greatest of all is the retrieval of information, which will be at the click of the mouse. So the proposed system helps in saving the time in different operations and making information flow easy giving valuable reports.

## **Literature Review**

According to our idea of creating a Real-Time Android Application named “Grossify” to establish productively and trusting virtual working relationships.

A review of the articles and business reports related to consumers’ grocery shopping decision making process, in both offline and online retail channels. The intent was to acquire a general overview of grocery shopping, in what pertains to this dissertation and subsequent research questions, and as such the focus relies mostly on the decisional phase and influencing pre-decisional phase of the grocery shopper decision making process. Based on the outcome of the literature review performed, a conceptual framework that guided the design and performance of the empirical studies, aiming at providing answers to the proposed research questions, is also presented.

The purchase decision making process in traditional retail environments:

- A consumer purchase is typically a response to a problem or need, and once a consumer realizes this, he or she undergoes a series of steps until his or her need is satisfied.
- When analysing the particular case of online shopping, factors other than those already reviewed come into play and should therefore be taken into account.
- This model is based on the central role occupied by traditional decision making processes in the online shopping environment, recognizing the existence of particular moderating and interacting effects.

## **Feasibility Study**

After doing the project Online Grocery Ordering System, study and analyzing all the existing or required functionalities of the system, the next task is to do the feasibility study for the project. All projects are feasible - given unlimited resources and infinite time.

Feasibility study includes consideration of all the possible ways to provide a solution to the given problem.

The proposed solution should satisfy all the user requirements and should be flexible enough so that future changes can be easily done based on the future upcoming requirements.

### **A. Economic Feasibility:**

This is a very important aspect to be considered while developing a project.

We decided the technology based on minimum possible cost factor.

- All hardware and software cost has to be borne by the organization.
- Overall we have estimated that the benefits the organization is going to receive from the proposed system will surely overcome the initial costs and the later on running cost for system.

### **B. Technical Feasibility :**

This included the study of function, performance and constraints that may affect the ability to achieve an acceptable system.

For this feasibility study, we studied complete functionality to be provided in the system, as described in the System Requirement Specification

(SRS), and checked if everything was possible using different type of frontend and backend platforms.

### **C. Operational Feasibility :**

No doubt the proposed system is fully GUI based that is very user friendly and all inputs to be taken all self-explanatory even to a layman.

Besides, a proper training has been conducted to let know the essence of the system to the users so that they feel comfortable with new system.

As far our study is concerned the clients are comfortable and happy as the system has cut down their loads and doing

## **SOFTWARE REQUIREMENTS SPECIFICATIONS** **(SRS)**

### **SOFTWARE:**

Operating System : Android Device

Font-end Tool : Android

Back-End : Android & java

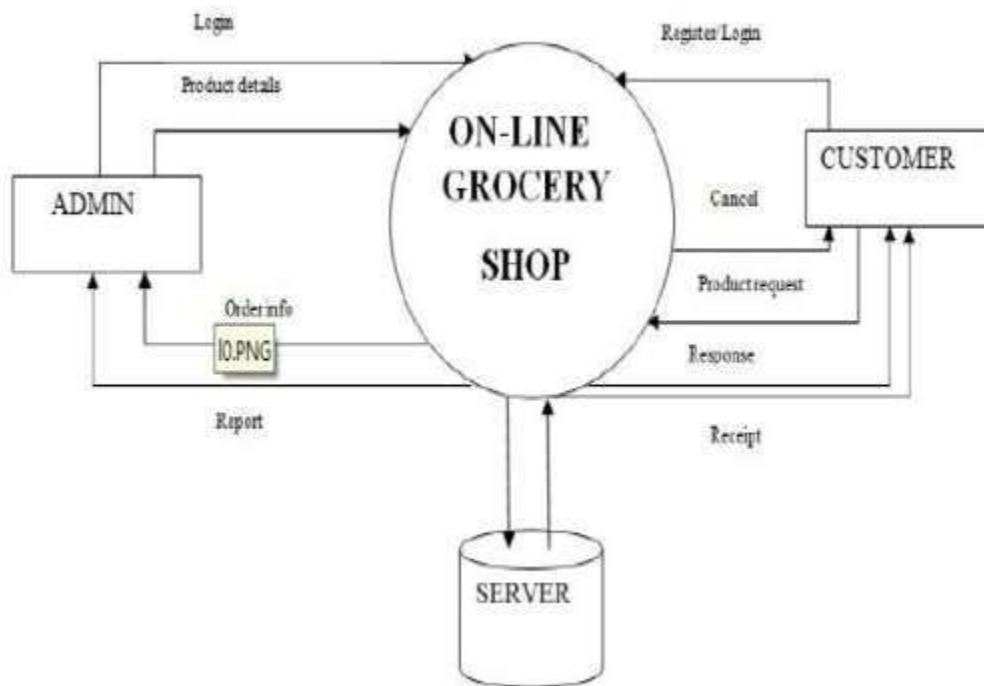
### **HARDWARE:**

Memory : 2 GB RAM

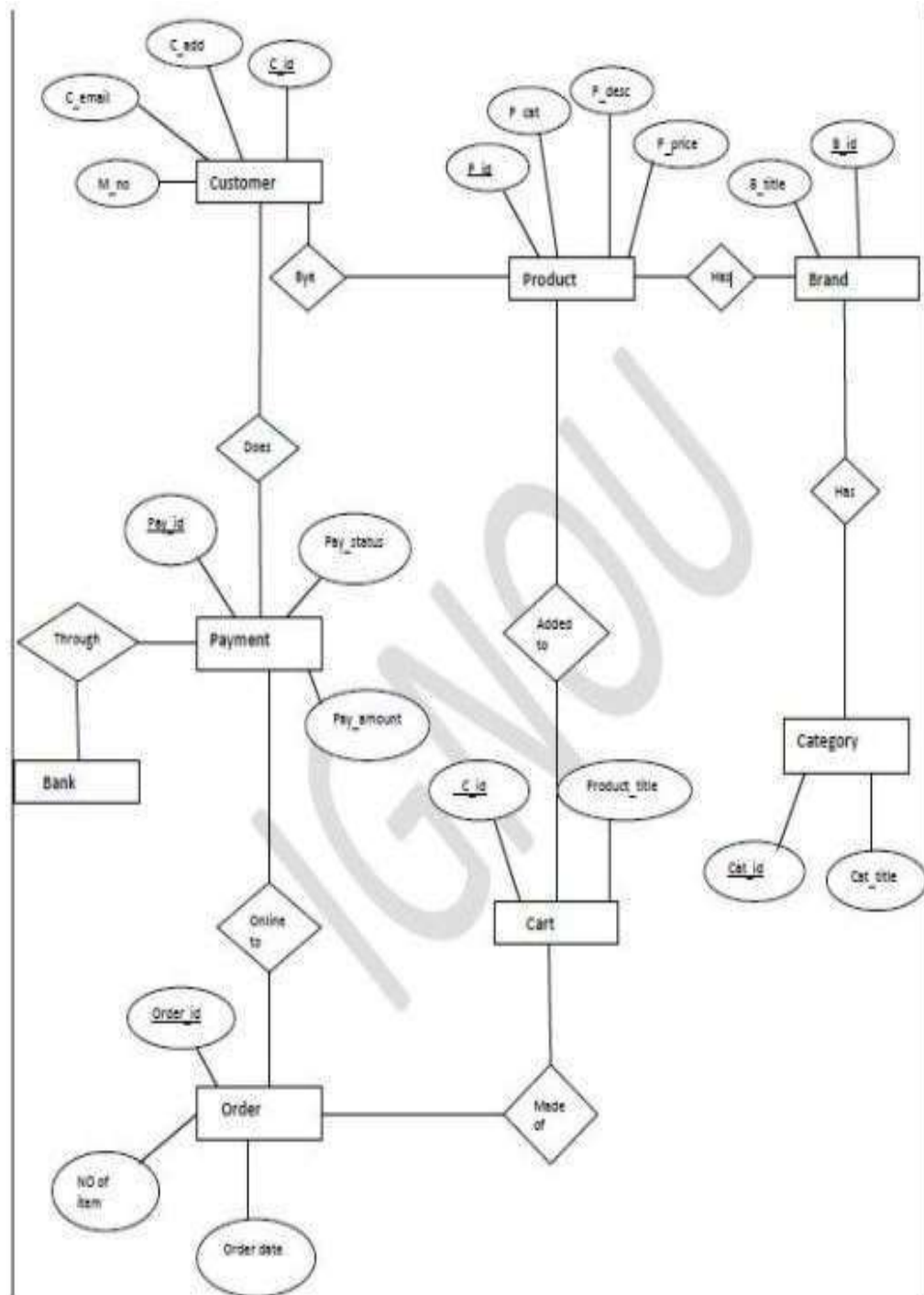
Cache Memory : 128 MB or more

Internal Memory: 4 GB or more

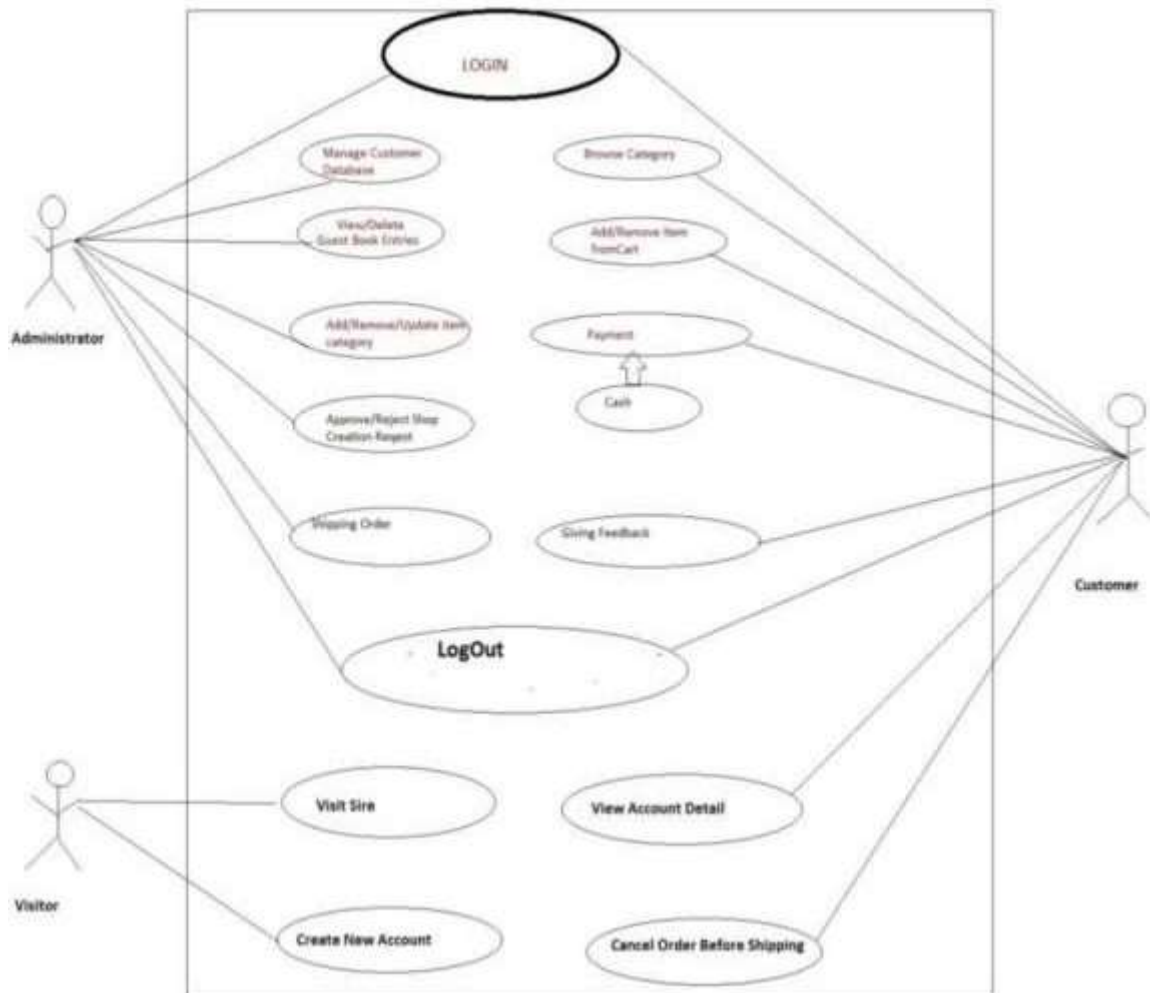
### **Level 0 Data Flow Diagram:**



## ER-Diagram:



## Use-Case Diagram:





## **System Design**

In this phase, a logical system is built which fulfills the given requirements. Design phase of software development deals with transforming the clients 's requirements into a logically working system.

Normally, design is performed in the following in the following two steps:

### **1. Primary Design Phase:**

In this phase, the system is designed at block level. The blocks are created on the basis of analysis done in the problem identification phase. Different blocks are created for different functions emphasis is put on minimizing the information flow between blocks. Thus, all activities which require more interaction are kept in one block.

### **2. Secondary Design Phase:**

In the secondary phase the detailed design of every block is performed.

The general tasks involved in the design process are the following:

1. Design various blocks for overall system processes.
2. Design smaller, compact and workable modules in each block.
3. Design various database structures.
4. Specify details of programs to achieve desired functionality.
5. Design the form of inputs, and outputs of the system.
6. Perform documentation of the design.
7. System review.

## **User Interface Design**

User Interface Design is concerned with the dialogue between a user and the computer.

It is concerned with everything from starting the system or logging into the system to the eventual presentation of desired inputs and outputs. The overall flow of screens and messages is called a dialogue.

The following steps are various guidelines for User Interface Design:

1. The system user should always be aware of what to do next.
2. The screen should be formatted so that various types of information, instructions and messages always appear in the same general display area.
3. Message, instructions or information should be displayed long enough to allow the system user to read them.
4. Use display attributes sparingly.
5. Default values for fields and answers to be entered by the user should be specified.
6. A user should not be allowed to proceed without correcting an error.
7. The system user should never get an operating system message or fatal error.

## **Preliminary Product Description**

The first step in the system development life cycle is the preliminary investigation to determine the feasibility of the system.

The purpose of the preliminary investigation is to evaluate project requests. It is not a design study nor does it include the collection of details to describe the business system in all respect.

Rather, it is the collecting of information that helps committee members to evaluate the merits of the project request and make an informed judgment about the feasibility of the proposed project.

**Analysts working on the preliminary investigation should accomplish the following objectives:**

- Clarify and understand the project request
- Determine the size of the project.
- Assess costs and benefits of alternative approaches.
- Determine the technical and operational feasibility of alternative approaches.
- Report the findings to management, with recommendations outlining the acceptance or rejection of the proposal.

## **Benefit to Organization :**

The organization will obviously be able to gain benefits such as savings in operating cost, reduction in paperwork, better utilization of human resources and more presentable image increasing goodwill.

## **The Initial Cost :**

The initial cost of setting up the system will include the cost of hardware software (OS, add-on software, utilities) & labour (setup & maintenance). The same has to be borne by the organization.

## **Running Cost :**

Besides the initial cost the long term cost will include the running cost for the system including the AMC, stationary charges, cost for human resources, cost for update/renewal of various related software.

## **Need for Training :**

The users along with the administrator need to be trained at the time of implementation of the system for smooth running of the system.

The client will provide the training site.

We talked to the management people who were managing the financial issues of the center, the staff who were keeping the records in lots of registers and the reporting manager regarding their existing system, their requirements and their expectations from the new proposed system.

Then, we did the system study of the entire system based on their requirements and the additional features they wanted to incorporate in this system.

Reliable, accurate and secure data was also considered to be a complex task without this proposed system.

Because there was no such record for keeping track of all the activities, which was done by the Online Grocery Ordering System on the daily basis.

The new system proposed and then developed by me will ease the task of the organization in consideration.

It will be helpful in generating the required reports by the staff, which will help them to track their progress and services.

The way it will ease the task of management to a great extent as all the major activities to be performed , are computerized through this system.

### **Project Category:**

Relational Database Management System (RDBMS) :

This is RDBMS based project which is currently using the firebase as the local storage for all transaction statements.

Firebase is a database provided by Google for developers.

## **Implementation Methodology**

Model View Controller or MVC as it is popularly called, is a software design pattern for developing web applications.

**A Model View Controller pattern is made up of the following three parts:**

- Model - The lowest level of the pattern which is responsible for maintaining data.
- View - This is responsible for displaying all or a portion of the data to the user.
- Controller - Software Code that controls the interactions between the Model and View.

MVC is popular as it isolates the application logic from the user interface layer and supports separation of concerns. Here the Controller receives all requests for the application and then works with the Model to prepare any data needed by the View.

The View then uses the data prepared by the Controller to generate a final presentable response. The MVC abstraction can be graphically represented as follow.

# **Project Planning**

Software project plan can be viewed as the following:

**1) Within the organization:** How the project is to be implemented?

What are various constraints (time, cost, staff)? What is market strategy?

**2) With respect to the customer:** Weekly or timely meetings with the customer with presentation on status reports. Customers feedback is also taken and further modification and developments are done. Project milestones and deliverables are also presented to the customer.

For a successful software project, the following steps can be followed:

- Select a project
  - Identifying projects aims and objectives
  - Understanding requirements and specification o Methods of analysis, design and implementation
  - Testing techniques.
  - Documentation
- Project milestones and deliverables
- Budget allocation
  - Exceeding limits within control
- Project Estimates
  - Cost

- Time
- Size of code
- Duration
- Resource Allocation
  - Hardware
  - Software
  - Previous relevant project information
  - Digital Library
- Risk Management
  - Risk avoidance
  - Risk detection

### **Project Scheduling:**

	January				February				March			
Requirement Gathering												
Analysis												
Design												
Coding												
Testing												
Implement												
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4



## **Project Profile**

There has been continuous effort to develop tools, which can ease the process of software development. But, with the evolving trend of different programming paradigms today's software developers are really challenged to deal with the changing technology. Among other issues, software re-engineering is being regarded as an important process in the software development industry. One of the major tasks here is to understand software systems that are already developed and to transform them to a different software environment.

Generally, this requires a lot of manual effort in going through a program that might have been developed by another programmer. This project makes a novel attempt to address the issued of program analysis and generation of diagrams, which can depict the structure of a program in a better way. Today, UML is being considered as an industrial standard for software engineering design process.

It essential provides several diagramming tools that can express different aspects/ characteristics of program such as :

### **Use cases:**

Elicit requirement from users in meaningful chunks. Construction planning is built around delivering some use cases n each interaction basis for system testing.

### **Class diagrams:**

They shows static structure of concepts, types and class. Concepts how users think about the world; type shows interfaces of software components; classes shows implementation of software components.

### **Interaction diagrams:**

It shows how several objects collaborate in single use case.

**Package diagram:** It show group of classes and dependencies among them.

**State diagram:** It show how single object behaves across many use cases.

**Activity diagram:**It shows behavior with control structure. Can show many objects over many uses, many object in single use case. or implementations methods encourage parallel behavior, etc.

The end-product of this project is a comprehensive tool that can parse any vb.net program and extract most of the object oriented features inherent in the program such as polymorphism, inheritance, encapsulation and abstraction.

## **What is UML?**

UML stands for Unified Modeling Language is the successor to the wave of Object Oriented Analysis and Design (OOA&D) methods that appeared in the late 80's. It most directly unifies the methods of Booch, Rumbaugh (OMT) and Jacobson. The UML is called a modeling language, not a method. Most methods consist at least in principle, of both a modeling language and a process. The Modeling language is that notation that methods used to express design.

## **Notations and meta-models:**

The notation is the graphical stuff; it is the syntax of the modeling language. For instance, class diagram notation defines how items are concepts such as class, association, and multiplicity is represented. These are:

## **Class Diagram:**

The class diagram technique has become truly central within object-oriented methods. Virtually every method has included some variation on

this technique.

Class diagram is also subject to the greatest range of modeling concept.

Although the basic elements are needed by everyone, advanced concepts are used less often.

A class diagram describes the types of objects in the system and the various kinds of static relationship that exist among them. There are two principal kinds of static relationship:

- Association
- Subtype

### **Class diagram:**

It also show the attributes and operations of a class and the constraints that apply to the way objects are connected.

### **Association:**

Association represent between instances of class. From the conceptual perspective, association represents conceptual relations between classes. Each association has two roles. Each role is a direction on the association. A role also has multiplicity, which is a indication of how many object may participate in the given relationship.

### **Generalization:**

A typical example of generalization evolves the personal and corporate customer of a business. They have differences but also many similarity. The similarities can be placed in generalization with personal customer and corporate customer sub type.

### **Aggregation:**

Aggregation is the part of relationship. It is like saying a car has engine and wheels as its parts. This sounds good, but difficult thing is considering, what is the difference is aggregation and association.

**Interaction:**

Interaction diagrams are models that describes how groups of objects collaboration in some behavior.

Typically, an interaction diagram captures the behavior a single use cases. The diagram shows a number of example objects and the messages that are passed between these objects in use cases.

These are following approaches with simple use case that exhibits the following behavior.

Objects can send a message to another. Each message is checks with given stock item. There are two diagrams: Sequence and Collaboration diagram.

**Package Diagram:**

One of the oldest questions in software methods is: how do you break down a large system into smaller systems? It becomes difficult to understand and the changes we make to them.

Structured methods used functional decomposition in which the overall system was mapped as a function broken down into sub function, which is further broken down into sub function and so forth. The separation of process data is gone, functional decomposition is gone, but the old question is still remains.

One idea is to group the classes together into higher-level unit. This idea, applied very loosely, appears in many objects.

In UML, this grouping mechanism is package. The term package diagram for a diagram that shows packages of classes and the dependencies among them.

A dependency exists between two elements if changes to the definition of one element may cause to other. With classes, dependencies exist for various reasons: one class sends a message to another; one class has

another as part of its data; one class mentions another as a parameter to an operation.

A dependency between two packages exists; and any dependencies exist between any two classes in the package.

### **State diagram:**

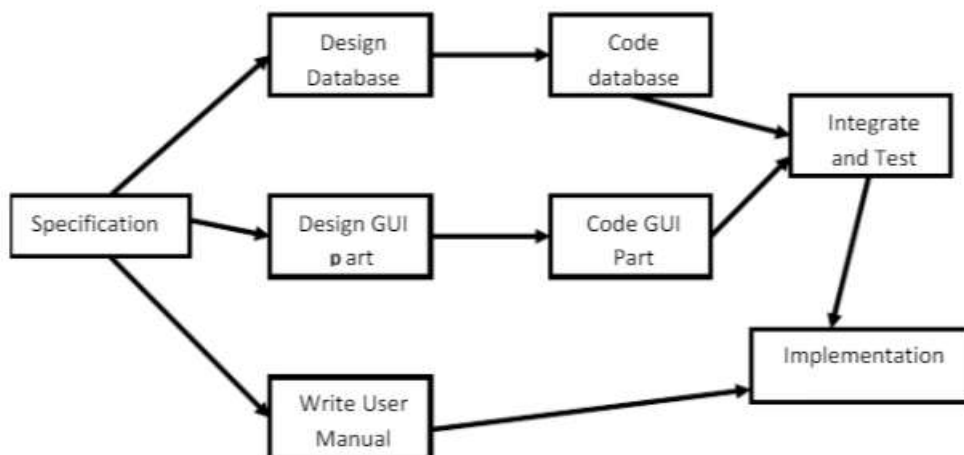
State diagram are a familiar technique to describe the behavior of a system. They describe all the possible states a particular object can get into and how the objects state changes as a result of events that reach the objects. In most OO technique, state diagrams are drawn for a single class to show the lifetime behavior of a single object.

There are many form of state diagram, each with slightly different semantics. The most popular one used in OO technique is based on David Harel's state chart.

### **PERT CHART (Program Evaluation Review Technique) :**

PERT chart is organized for events, activities or tasks. It is a scheduling device that shows graphically the order of the tasks to be performed.

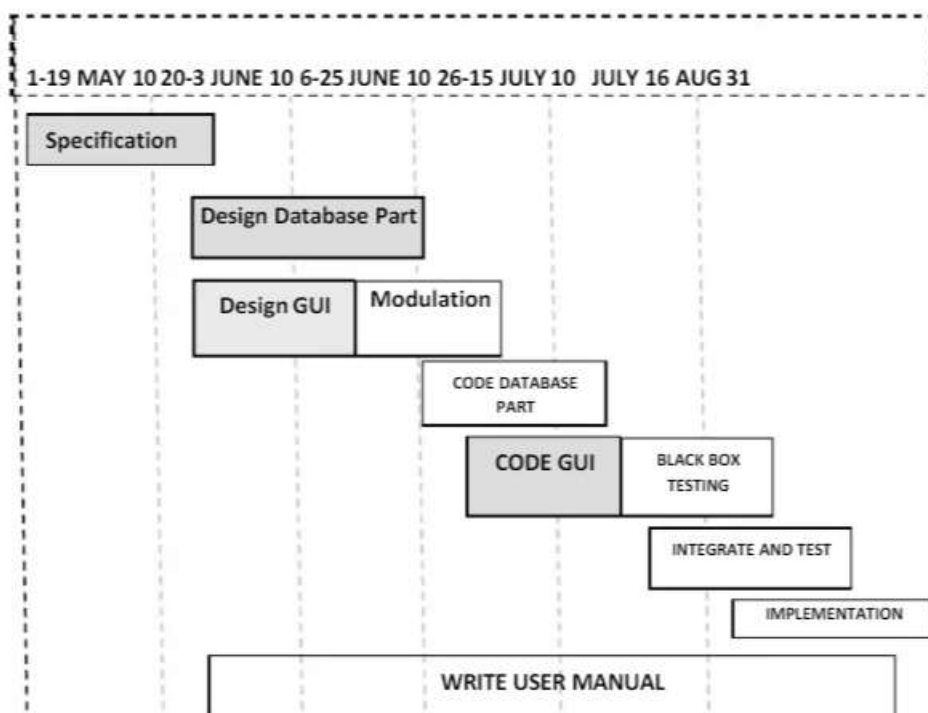
It enables the calculation of the critical path. The time and cost associated along a path is calculated and the path requires the greatest amount of elapsed time in critical path.



## GANTT CHART :

It is also known as Bar chart is used exclusively for scheduling purpose. It is a project controlling technique. It is used for scheduling. Budgeting and resourcing planning. A Gantt is a bar chart with each bar representing activity.

The bars are drawn against a time line. The length of time planned for the activity. The Gantt chart in the figure shows the Gray parts is slack time that is the latest by which a task has been finished.



## **Use Case Model of the Project:**

The use case model for any system consists of "use cases". Use cases represent different ways in which the system can be used by the user.

A simple way to find all the use case of a system is to ask the questions "What the user can do using the system?" The use cases partition the system behavior into transactions such that each transaction performs some useful action from the users' point of view.

The purpose of the use case is to define a piece of coherent behavior without revealing the internal structure of the system.

An use case typically represents a sequence of interaction between the user and the system. These interactions consists of one main line sequence is represent the normal interaction between the user and the system. The use case model is an important analysis and design artifact (task). Use cases can be represented by drawing a use case diagram and writing an accompany text elaborating the drawing.

In the use case diagram each use case is represented by an ellipse with the name of use case written inside the ellipse.

All the ellipses of the system are enclosed with in a rectangle which represents the system boundary. The name of the system being modeled appears inside the rectangle. The different users of the system are represented by using stick person icon. The stick person icon is normally referred to as an Actor. The line connecting the actor and the use cases is called the communication relationship.

## SCREENSHOTS OF THE PROJECTS

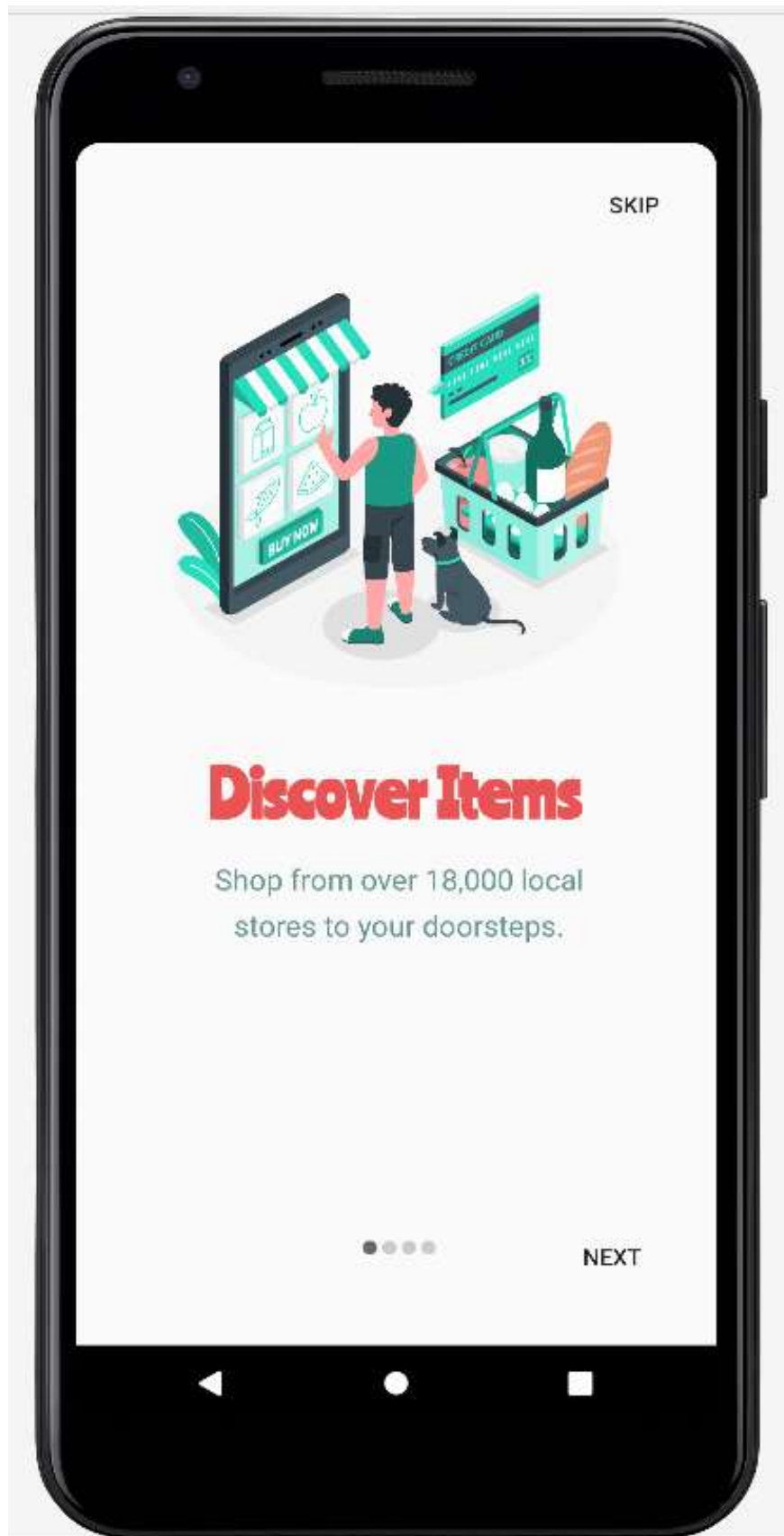
### 1 –Splash Window Screen



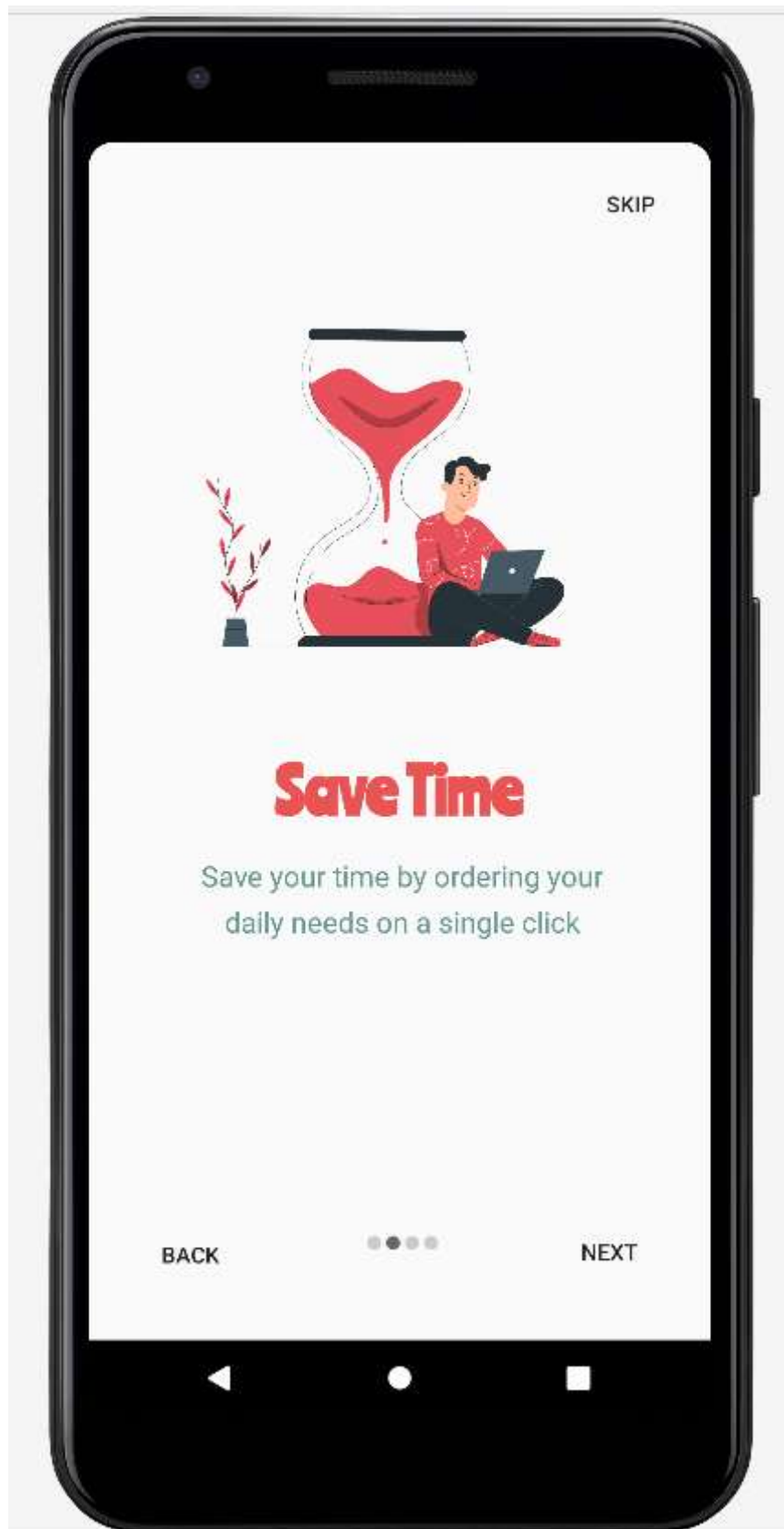


## 2 – OnBoarding Activities :

### Screen-1:



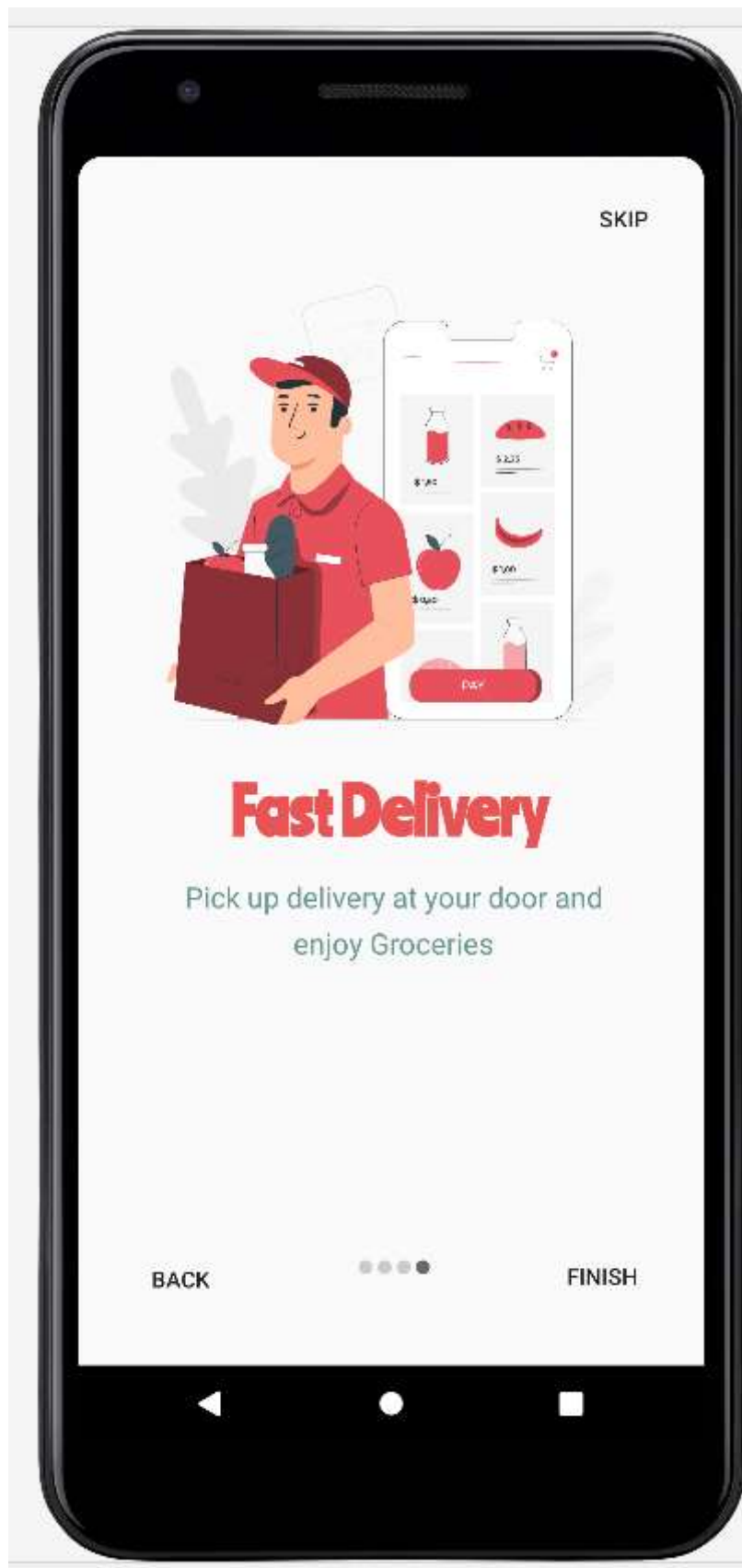
## Screen-2:



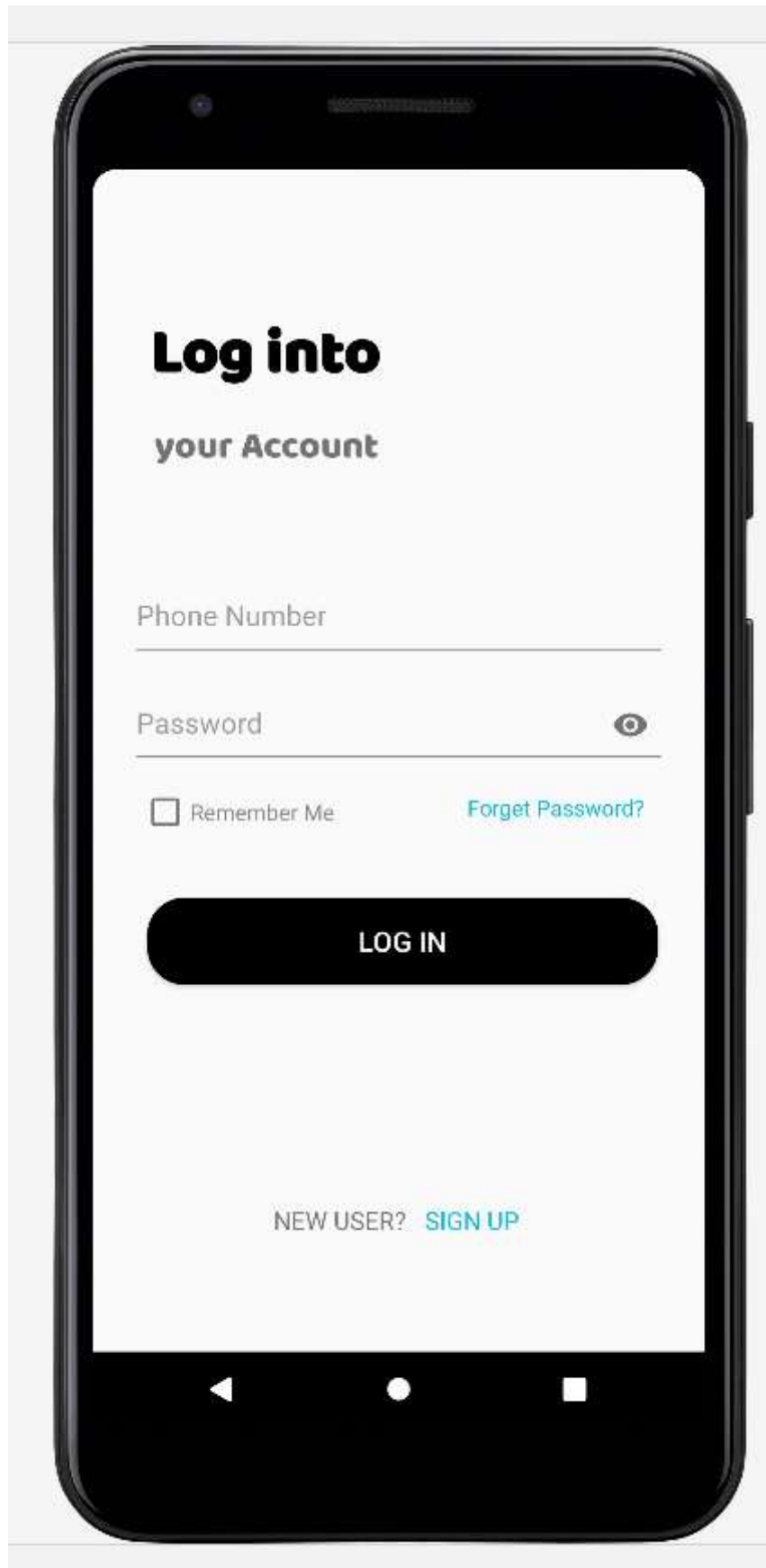
### Screen-3:



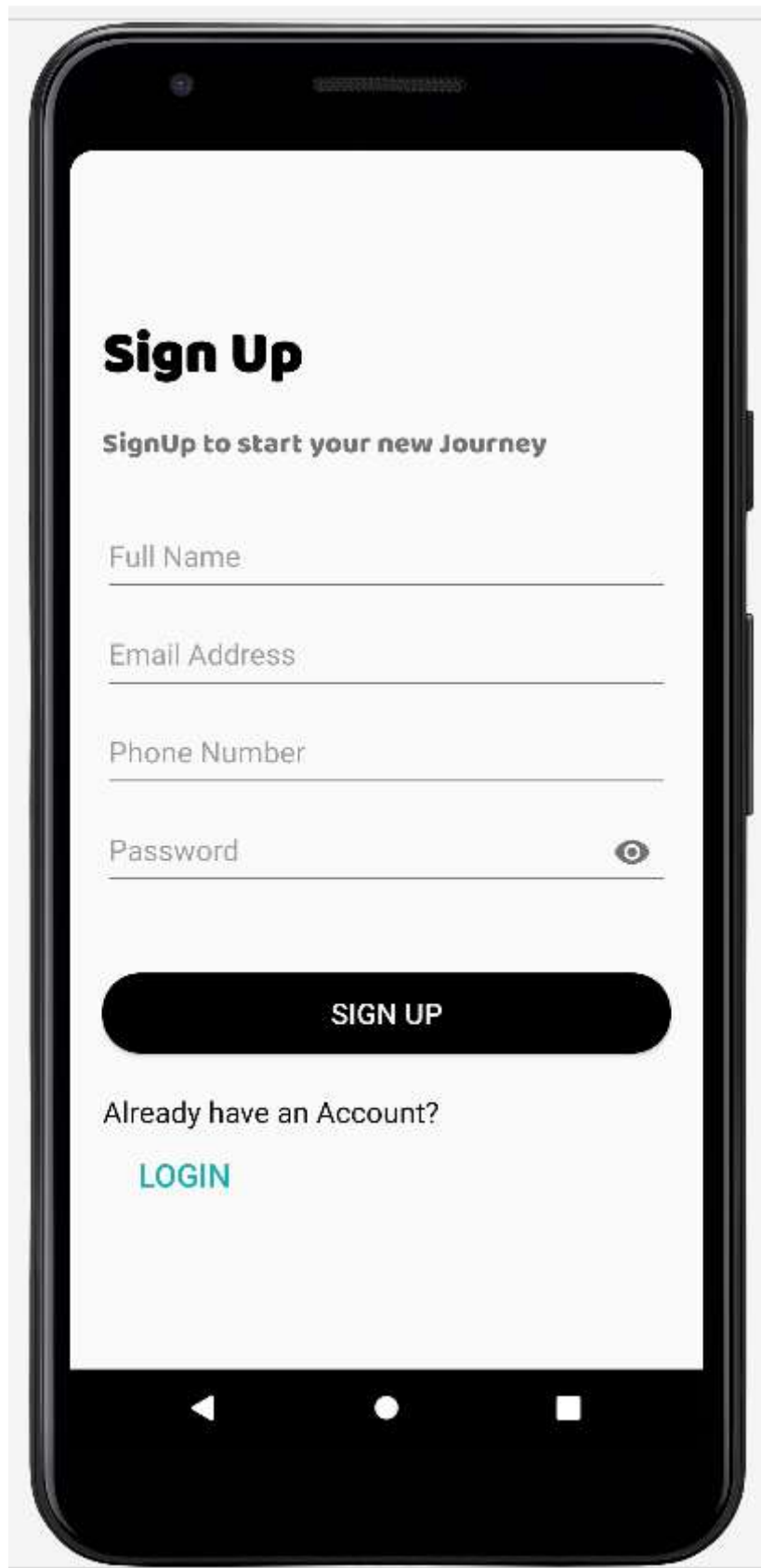
## Screen-4:



### 3 – Login Activity



## 4 – Sign Up Activity




**Sign Up**

SignUp to start your new Journey

Full Name

Email Address

Phone Number

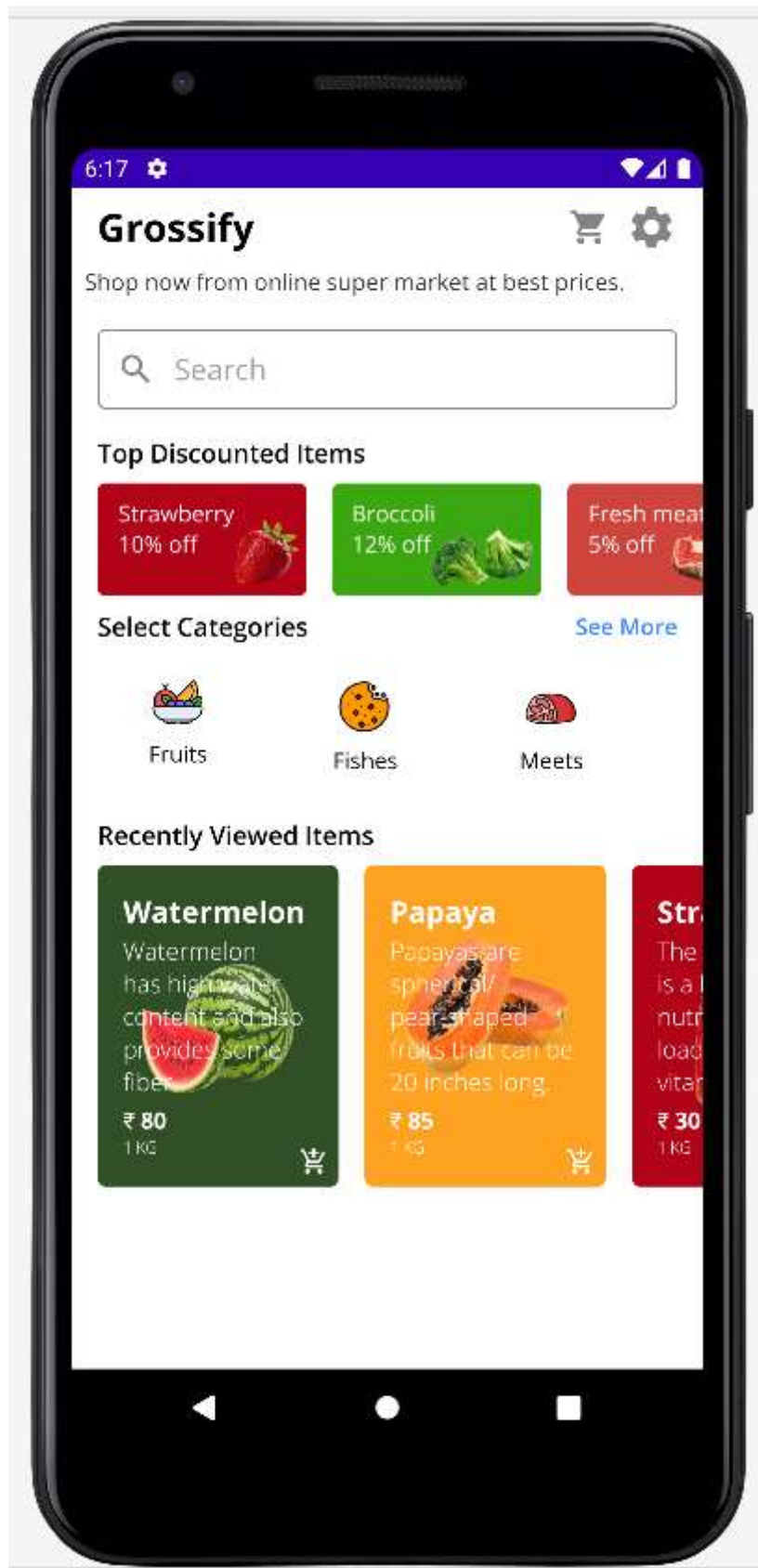
Password 

**SIGN UP**

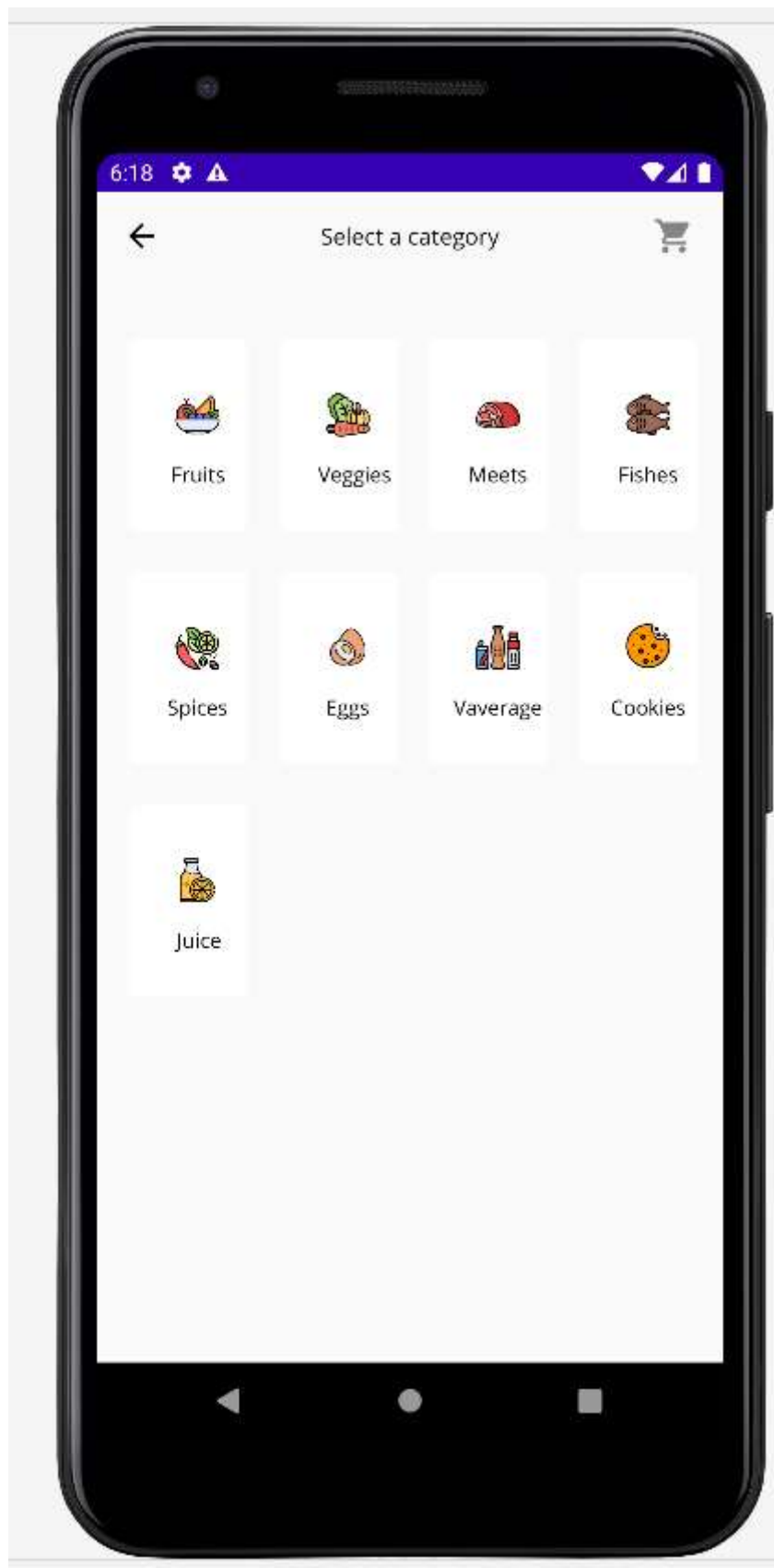
Already have an Account?

[LOGIN](#)

## 5 – Main Activity

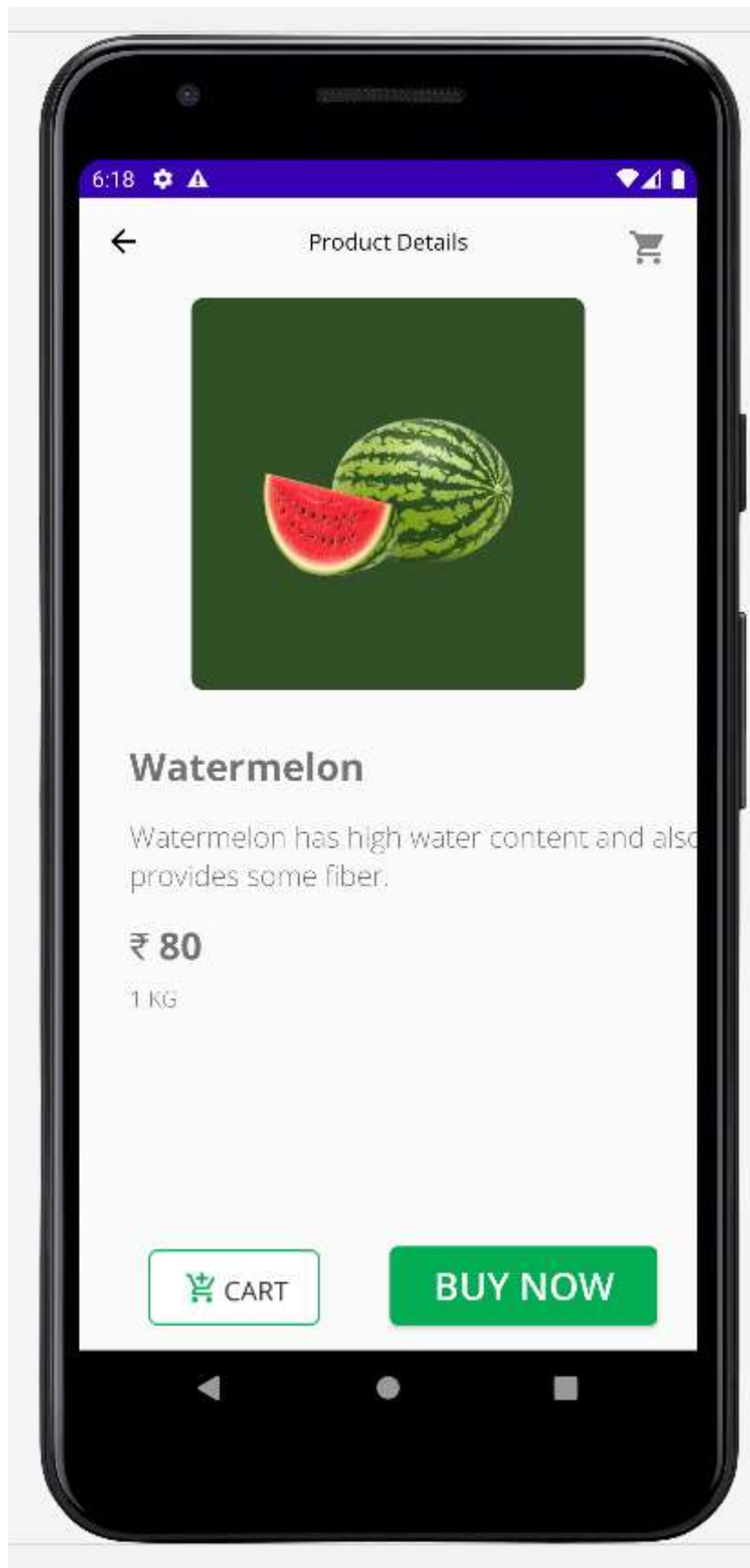


## 6 – Select Category Activity





## 7 – Item View Activity



## **CONCLUSION**

The first conclusion this study provides is the realization of online grocery shopping in India as being a niche market. Although being generally well accepted throughout the world as a form of grocery shopping, with a retail business growing each year, during the execution of the methodology much difficulty was found in reaching actual online grocery shoppers, as the low survey response rate demonstrated. The latter could possibly be due to the general lack of interest of the targeted respondents on the study, the inappropriate method of survey distribution, or the actual low number of online grocery shoppers.

Moreover, regarding pre-decisional factors, and although results cannot be generalized, both studies uncovered similar results for the average shopper planning patterns, which further reinforces the previous point. As per the overall decision making process, this was generally found to be a rational process with utilitarian motivations, following defined planning and purchasing patterns established from previous shopping trips.