

**MINI PROJECT  
(2020-21)**

**The-Grocers-Market  
PROJECT REPORT**



**Institute of Engineering & Technology**

**Submitted by-**

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**Declaration**

We hereby declare that the work which is being presented in the B.Tech Project “The Grocers Market”, in partial fulfillment of the requirements for the award of the ***Bachelor of Technology*** and submitted to the Department of Computer Engineering and Applications of GLA University, Mathura, is an authentic record of our own work carried under the supervision of **Ms. Ruchi Gupta Senior Trainer of computer Engineering Department**. The contents of this project report, in full or in parts, have not been submitted to any other institute or university for the award of any degree.

## **ACKNOWLEDGEMENT**

The satisfaction which accompanies the successful completion of the project, is incomplete without the mention of a few names. We take this opportunity to acknowledge the efforts of the many individuals who helped us to make this project possible.

Firstly we would like to express our heartfelt appreciation and gratitude to our project guide **Ms. Ruchi Gupta , Senior Trainer, Computer Engineering Department.** His vision and execution aimed at creating a structure, definition and realism around the project and fostered the ideal environment for us to learn and do. This project is a result of his teaching, encouragement and inputs in the numerous meetings he had with us, despite his busy schedule.

The experience was new and we would like to thank all the people, who have lent their valuable time for the completion of the report. Without their consideration it would have been difficult to complete the report.

## **ABSTRACT**

An online shopping mart permits a customer to submit online orders for items and/or services from a store that serves both walk- in customers and online customers. The Online Store System presents an online display of all the items they want to sell. This web based application helps customers to choose their daily needs and add products to their shopping cart. Customers provide their complete detail of address and contact so they can get their chosen products at their home. This web application saves lots of time of customers

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# **1. INTRODUCTION**

## **1.1 Present Problem Statement**

E-commerce provides an easy way to sell products to a large customer base. However, there is a lot of competition among multiple e-commerce sites. When users land on an e-commerce site, they expect to find what they are looking for quickly and easily. Also, users are not sure about the brands or the actual products they want to purchase. They have a very broad idea about what they want to buy. Many customers nowadays search for their products on Google rather than visiting specific e-commerce sites. They believe that Google will take them to the e-commerce sites that have their product.

The purpose of any e-commerce website is to help customers narrow down their broad ideas and enable them to finalize the products they want to purchase.

## **1.2 Proposed System**

Proposed system will ease the shopping operations for customers of online stores. It will provide vendor or admin functionality to manage categories and products. Customer will be able to browse and search products under different categories. Selected items/products selected for purchase would be added into your shopping cart. Which can be managed separately by customers. It can be examined at any time by customers for selected products, their quantity and price.

This system provides a lot of features to manage the products in a very well manner. This system contains a lot of advance modules which makes the back end system very powerful. Online grocery store system provides the searching facilities based on the various factors such that products, customers, payment, categories, stock. It can track all the information products, customers, categories, stock and payment.

## **1.3 Overview**

Today the era has changed completely and the people are not much interested in going to local stores rather they prefer to shop online. This trend has made a revolutionary change in online shopping industry and today every business organization has their own online store. It has become one of the biggest industries in terms of revenue and customers.

This huge demand has also put pressure on e-Commerce web development companies and latest technologies have been used to provide web stores. Today online stores are the best way to increase the business of any organization in commercial sector.

As per the trend there is no better way to create revenue and to build brand image than opting for e-Commerce web portals. Business houses are opting for online stores because it helps them in many ways as mentioned below.

### **1.4 Motivation**

- With online stores there is no need of business organizations to have physical stores at every place.
- E-Commerce platforms give easy chance to the business organization to increase their reach to customers who are not able to visit their physical store.
- Marketing becomes very easy for the company and they get more loyal and repeated customers.
- E-Commerce platform gives option to the business owners to know about the interest of the customer and using this information it becomes easy for them to convince the buyers by providing offers in their interested items.

### **1.5 Objective**

#### **1. Reduce management costs**

Businesses aim at reducing the costs incurred for the betterment of their revenue. Automating the e-commerce business can help in reducing the management cost significantly. Moreover, the right use of digital marketing can help in reducing the cost spent on driving customers to such an extent that businesses can bring customers for free of cost.

#### **2. Developing business relations**

With e-commerce as the primary use, business development can be easily achieved. The direct



communication between a company and the customer, the business relationship can be boosted. Eventually, the ecommerce market shall be expanded.\

### **3. Providing a unique customer experience**

One of the best ways to stand out from the crowd is by providing a unique customer experience. This includes giving a personalized experience to each customer or visitor of your online store, website, or mobile app. Some other pointers to consider are round the clock customer service, immediate responses to the queries rose, engaging with the customers, and so on.

### **4. Increasing the number of loyal customers**

Customers are the core of all business strategies. Therefore, ensuring the great customer experience is of prime importance for the growth of the business. We need to meet our customers where they spend their time. More than 60% of consumers look for purchasing goods and services online. If we meet our customers where they are already active, the chances of them, interacting with our business increases two folds. We can increase the number of loyal customers by giving the best experience to our already existing customers as well as bring in newer customers.

### **5. Increasing sales**

The objective of increasing sales will always remain continuous and constant for an ecommerce business. In order to thrive in the e-commerce industry, you need to boost your sales, constantly. For instance, the products that are sold the most, ideally the best seller can be used for remarketing and grab more attention. Any marketing strategy you used earlier including the email targeting. Based on the above-mentioned objectives and the marketing tactics that actually worked for us, we need to design our marketing plan.

## **2. SOFTWARE REQUIREMENT ANALYSIS**

System Analysis is a detailed study of the various operations performed by a system and their relationship within and outside the system .It is a systematic technique that defines goals and objectives the goal of the development is to deliver the system in the line with the user's requirements, and analysis is this process.

- System study has been conducted with the following objectives in mind: -
- Identify the client's need.
- Evaluate the system concept for feasibility.
- Perform economical and technical analysis.
- Allocate functional to hardware, software, people, database and other system elements  
Establish cost and schedule constraints.
- Both hardware and software expertise is required to successfully attain the objectives.

### **2.1 Requirement Analysis**

Information gathering is usually the first phase of the software development project. The purpose of this phase is to identify and document the exact requirements for the system. The user's request identifies the need for a new information system and on investigation re-defined the new problem to be based on MIS, which supports management. The objective is to determine whether the request is valid and feasible before a recommendation is made to build a new or existing manual system.The major steps are –

- Defining the user requirements.
- Studying the present system to verify the problem.
- Defining the performance expected by the candidate to use requirement.

#### **2.1.1 HardwareRequirements**

Processor	: Intel Dual Core Processor
Speed	: 1.5 GHZ
RAM	: 2 GB

Hard Disk : 20 GB of free space

### **2.1.2 Software Requirements**

Operating System : Window XP and higher

Front End : HTML, CSS, Java Script

Back End : SQL Server, PHP

### **2.1.3 Tools and Technology Tools**

- **HTML:** Hypertext Markup Language is the standard markup language for creating web pages and web application. HTML element are the building blocks of HTML pages. With HTML constructs, image and other objects, such as interactive form.
- **CSS:** CSS is cascading style sheet which is used to give designer look to HTML using the external file.
- **Java Script:** JavaScript is a dynamic computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow to make dynamic pages.
- **PHP:** Hypertext Preprocessor is a server-side scripting language designed for web development but also used as a general-purpose programming language.
- **SQL:** is a structured query language used for querying database.

## **2.2 Feasibility Study**

Feasibility study is the process of determination of whether or not a project is worth doing. Feasibility studies are undertaken within tight time constraints and normally culminate in a written and oral feasibility report. I have taken a fixed time in feasibility study with my co-developer.

Recent years have seen an exceptional evolution in the way India trades and shops. E-commerce is one of the rapidly growing sectors, stimulating an entire generation of entrepreneurs, large scale manufacturing of small and medium-sized enterprises. E-commerce has enabled helped reduce barriers and bring the manufacturer closer to the customer. India is one of the largest markets of e-

commerce players. With giants like Amazon, Flipkart, Snapdeal and new entrants like PayTm Mall, etc are also establishing a strong hold in the Indian market.

### **1. Amazon**

Amazon is one of the biggest online stores with a global presence. It not only provides a variety of product choices but also provides a great user experience and splendid customer service. It operates in India as a marketplace rather than a retailer.

### **2. Flipkart**

Flipkart is an Indian based e-commerce venture and over the years, it has garnered a lot of interest in the minds of Indian consumers. It has opened up the scope for Indian e-tail market in a tremendous way. It has been continuously developing and improving the customer experience. The website is easy to browse, hassle-free, and convenient.

### **3. PayTm**

PayTm is the second largest e-commerce platform in India and has also made its way to the list of unicorn startups. Primarily started as a mobile wallet, in 2016, PayTm entered the e-commerce industry with PayTm Mall. As the name suggests, it is an online market place for products ranging from electronics to daily consumer needs.

#### **2.2.1 Technical feasibility:**

This is concerned with specifying equipment of software and hardware that will successfully satisfy the user requirements. The technical needs of the system may vary considerably, but might include:

- The facility to produce output in a given time.
- Response time under certain condition.
- Ability to produce a certain volume of transaction at a particular speed.
- In examining technical feasibility, configuration of the system is given more importance than the actual make of hardware. The configuration should give the complete picture about the system requirements. What speeds of input and output should be achieved at particular quality of printing.

According to the definition of technical feasibility the compatibility between front-end and back-end is very important. In our project the compatibility of both is very good. The degree of compatibility of PHP and SQL Server is very good. The speed of output is very good when we enter the data and click button then the response time is very fast and give result very quick. In ever find difficulty when we use complex query or heavy transaction. The speed of transaction is always smooth and constant. This software provides facility to communicate data to distant location.

We use Active Server Pages and JavaScript. The designing of front-end of any project is very important so we selected Active Server Pages, HTML & CSS as front-end due to following reason:

- Easy implementation of code.
- Well define interface and database.
- Well define hand shaking of SQL Server.

At present scenario the no. of backend are available but we have selected SQL Server because of the following number of reasons:

- Able to handle large data.
- Security
- Robust RDBMS
- Backup & Recovery

With the help of above support were move defect of existing software. In future we can easily switch over any platform. To ensure that system does not halt in case of undesired situation or events. Problem effected of any module does not affect any module of the system. A change of hardware does not produce problem.

### **2.2.2 Operational Feasibility:**

It is mainly related to human organizational and political aspects. The points to be considered are:

- What changes will be brought with the system?

- What organization structures are distributed structures are distributed.
- What new skills will be required? Do the existing staff members have these skills? If not, can they be trained in due course of time?
- At present stage all the work is done manually. So, throughput and response time is too much. Major problem is lack of security check that should have been applied.
- Finding out the detail regarding user's request was very difficult, because data store was in different registers and different places. In case of any problem, no one can solve the problem until the person responsible is not present.
- Current communication is entirely on telephonic conversation or personal meetings. Post computerization staff can interact using internet.
- Now, we will explain the last point of operational feasibility i.e. handling and keeping of software, at every point of designing I will take care that menu options are not too complex and can be easily learned and required least amount of technical skills as operators are going to be from non-computers background.

### **2.2.3 Economic feasibility:**

Economic analysis is the most frequently used technique for evaluating the effectiveness of a proposed system. More commonly known as cost/benefit analysis: the procedure is to determine the benefits and saving that are expected from a proposed system and compare them with cost. If benefits outweighs cost, a decision is taken to design and implement the system. Otherwise, further justification or alternative in the proposed system will have to be made if it is to have a chance of being approved. This is an ongoing effort that improves in accuracy at each phase of the system life cycle.

At present Company has ten systems with following configuration:

- Ram 4 GB or above for fast execution and reliability
- MOTHER Board x64 based PC
- Color Monitor 14" and 17"
- Hard Disk 100GB
- Hence the economic feasibility is very good.

## **2.3 Analysis**

System analysis is the first step towards the software building process. The purpose of system analysis is to understand the system requirements, identify the data, functional and behavioral requirements and building the models of the system for better understanding of the system.

In the process of system analysis one should first understand that, what the present system, how it works (i.e. processes) .After analyzing the points to identify the problems in the present system. Upon evaluating current problems and desired information (input and output to the system), the analyst looks towards one or more solutions. To begin with, the data objects, processing functions, and behavior of the system are defined in detail. After this models, from three different aspects of the system-data, function and behavior. The models created during the system analysis process helps in better understanding of data and control flow, functional processing, operational behavioral and information content.

## **2.4 Summary of Modules**

- a) Admin Login
- b) User Login/Sign Up
- c) Categories
- d) Cart
- e) Contact Us
- f) About Us

### **Admin**

The admin is responsible for maintaining Database of store. Admin will control the store

i.e, can add and remove items can see the performance of the store and can check which item is require to add or not.

### **User Login**

Login module refers to authenticating the user and granting the access to their account. They can login with their registered username and password and do their work.

### **CATEGORIES**

We have total 8 categories in our site which can be added and remove depending upon developer and admin , these categories are bread and bakery , dairy products ,cleaning materials, chocolates etc. Products and its prices in these categories can also be added and remove dynamically.

### **Cart**

User can add their choice of item in this cart module and later can place order.

### **Contact Us**

User can contact to the store with the help of this module.

### **About Us**

User can read details of Flowers world in about us module.



### **3.SOFTWARE DESIGN**

A software design document (SDD) is a written description of a software product, that a software designer writes in order to give a software development team overall guidance to the architecture of the software project. An SDD usually accompanies an architecture diagram with pointers to detailed feature specifications of smaller pieces of the design. Practically, a design document is required to coordinate a large team under a single vision. A design document needs to be a stable reference, outlining all parts of the software and how they will work. The document is commanded to give a fairly complete description, while maintaining a high-level view of the software.

There are two kinds of design documents called HLDD (high-level design document) and LLDD (low-level design document).

The SDD contains the following documents:

1. The **data design** describes structures that reside within the software. Attributes and relationships between data objects dictate the choice of data structures.
2. The **architecture design** uses information flowing characteristics, and maps them into the program structure. The transformation mapping method is applied to exhibit distinct boundaries between incoming and outgoing data. The data flow diagrams allocate control input, processing and output along three separate modules.
3. The **interface design** describes internal and external program interfaces, as well as the design of human interface. Internal and external interface designs are based on the information obtained from the analysis model.
4. The **procedural design** describes structured programming concepts using graphical, tabular and textual notations. These design mediums enable the designer to represent procedural detail that facilitates translation to code. This blueprint for implementation forms the basis for all subsequent software engineering worked.

### 3.1 Data Flow Diagram (DFD)

The Data Flow Diagram (DFD) is a graphical representation of the flow of data through an information system. It enables you to represent the processes in your information system from the viewpoint of data. The DFD lets you visualize how the system operates, what the system accomplishes and how it will be implemented, when it is refined with further specification.

- Data flow diagrams are used by systems analysts to design information-processing systems but also as a way to model whole organizations. You build a DFD at the very beginning of your business process modeling in order to model the functions your system has to carry out and the interaction between those functions together with focusing on data exchanges between processes. You can associate data with conceptual, logical, and physical data models and object-oriented models.


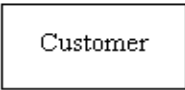
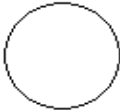


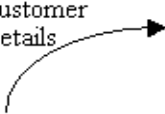

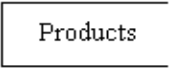
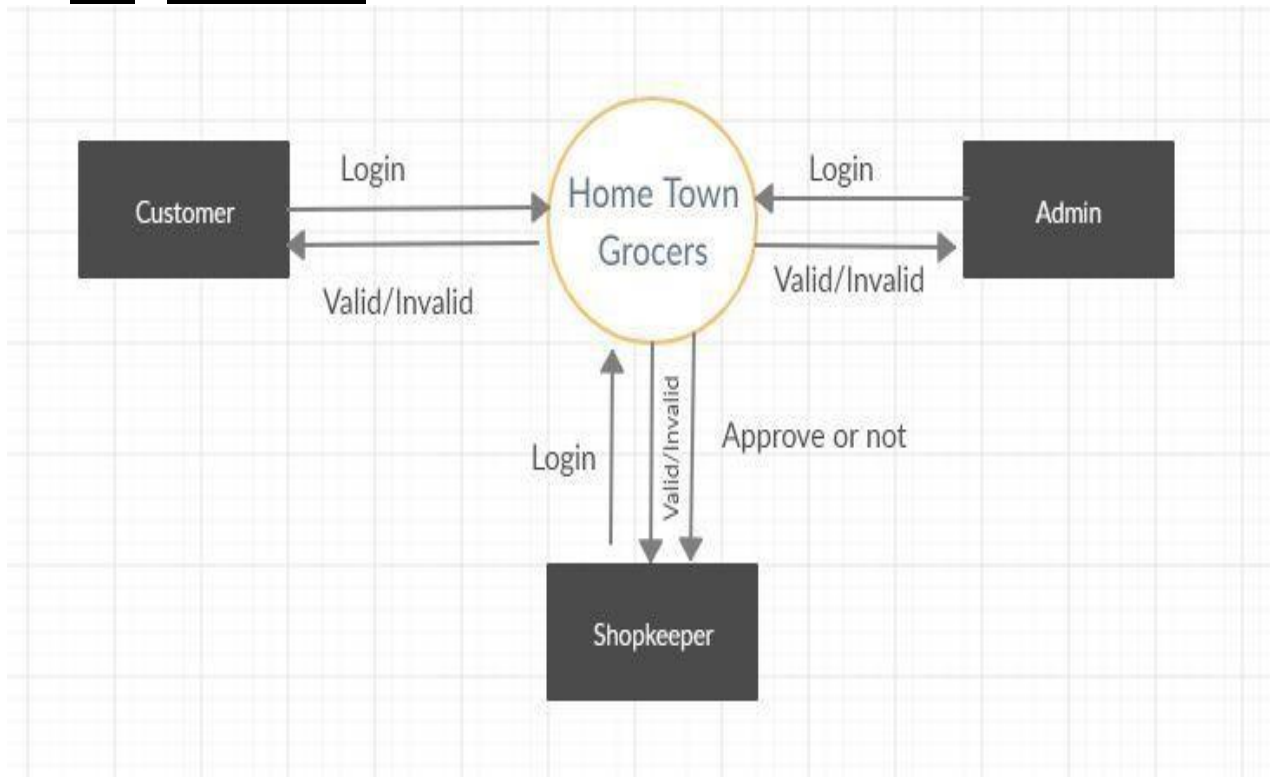
Name	Symbol	Description	Example
Entity		Used to represent people and organizations outside the system. They either input information to the system, accept output information from the system or both	
Process		These are actions that are carried out with the data that flows around the system. A process accepts input data and produces data that it passes on to another part of the DFD	
Data Flow		These represent the flow of data to or from a process	
Data Store		This is a place where data is stored either temporarily or permanently	

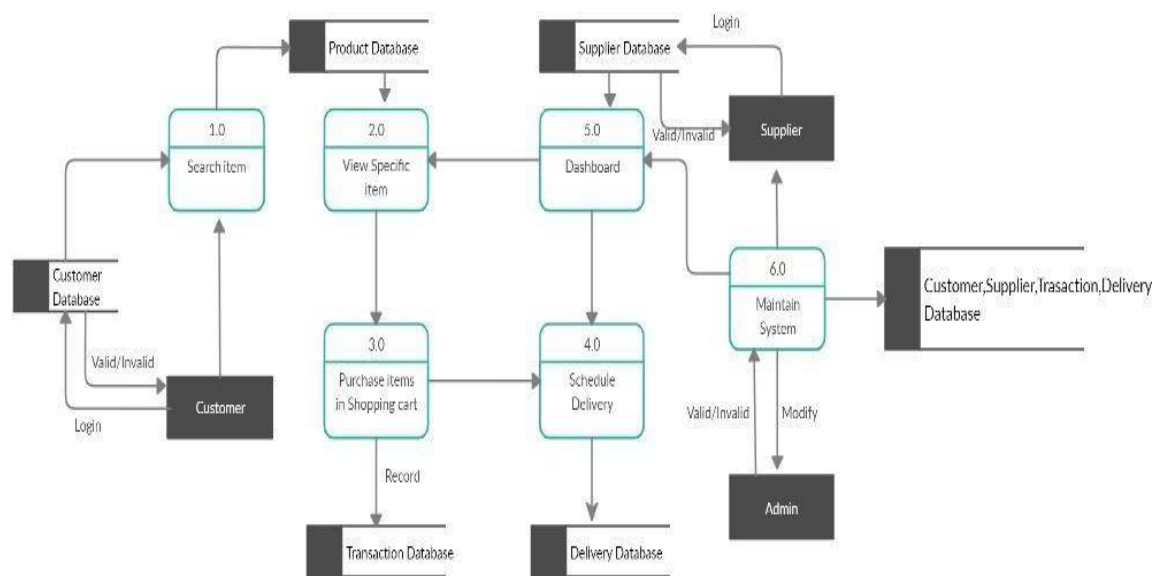
Fig 3.1: Data Flow Diagram Symbols

### **3.1.1 DFD LEVEL0**



**Fig 3.1.1: 0 Level DFD**

### **3.1.2 DFD LEVEL 1**



**Fig 3.1.2: 0 Level DFD**

### **3.2 Entity Relationship Diagram(ER-Diagram)**

An entity-relationship diagram (ERD) is a graphical representation of an information system that shows the relationship between people, objects, places, concepts or events with in that system. An ERD is a data modeling technique that can help define business processes and can be used as the foundation for a relational database.

While useful for organizing data that can be represented by a relational structure, an entity-relationship diagram can't sufficiently represent semi-structured or unstructured data, and an ERD is unlikely to be helpful on its own in integrating data into a preexisting information system.

Three main components of an ERD are the entities, which are objects or concepts that can have data stored about them, the relationship between those entities, and the cardinality, which defines that relationship in terms of numbers.

The three main components of the ER Model are **entities**, **attributes** and **relationships**.

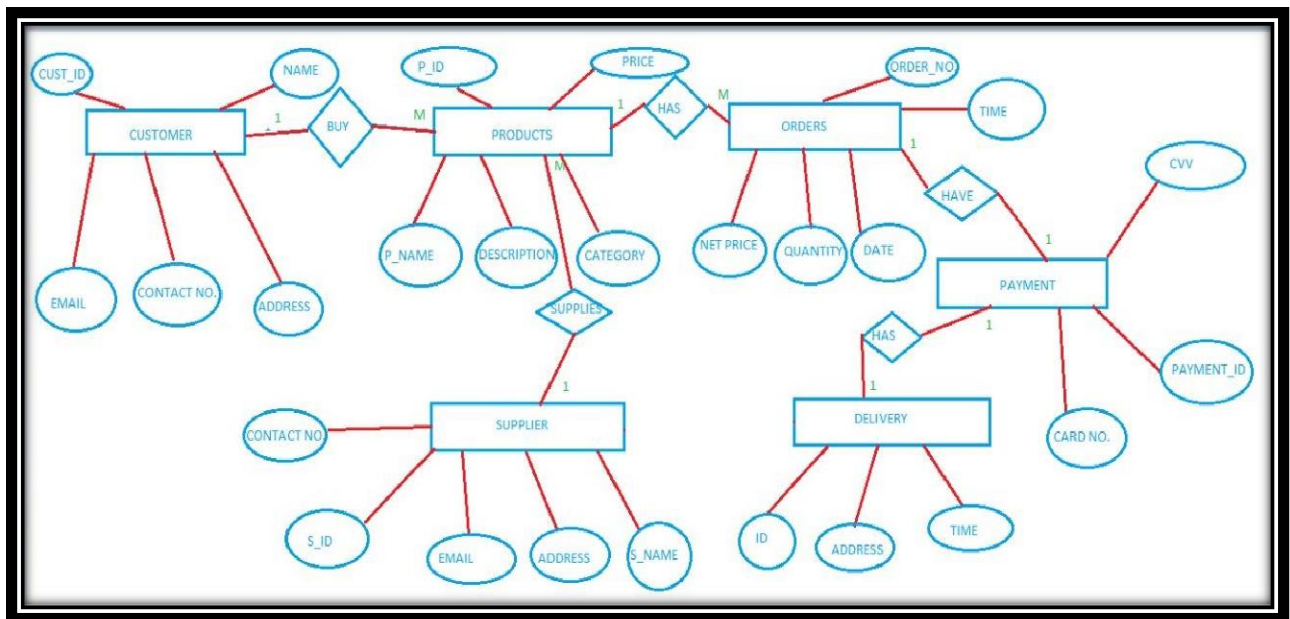
- In ERM terms, an entity is a "thing" within the organization that we want to keep information about, such as a customer, employee or course. In other words, an entity in an ERM actually refers to a table, and rows within the table are referred to as entity occurrences. Entities are represented by rectangles containing the name of the entity. Entity names must be singular and in capital letters.
- Each entity has attributes which are the properties of each entity. Attributes will be implemented as columns in the tables. Each attribute has a domain which specifies the set of possible values an attribute can have. For instance, the range of values for a telephone extension may be specified as a set of integer numbers between 4000 and 4999. An attributes domain is not displayed in ER diagrams, but is recorded in the data dictionary.
- Attributes can be of various types. A composite attribute can be sub divided into smaller parts. For example, an attribute Name can be subdivided into First Name and Last Name. Attributes that cannot be subdivided are called simple attributes. First Name and Last Name are now simple attributes. Most attributes have only a single value and as such are called single valued attributes. For example, a Teacher can have

only one Last Name or a Subject can have only one Subject Code. Multivalued attributes can have more than one value. For example, a Student could have more than one Certificate or a Department may have several Extensions.

- A key attribute is an attribute that has a unique value for each entity occurrence. In other words, a key attribute is used to identify each row uniquely. For example, a Subject Code will uniquely identify each subject as

No two subject can have the same subject Code. Key attribute are represented by the Underlining this name.

### **3.2.1 ER Diagram:**



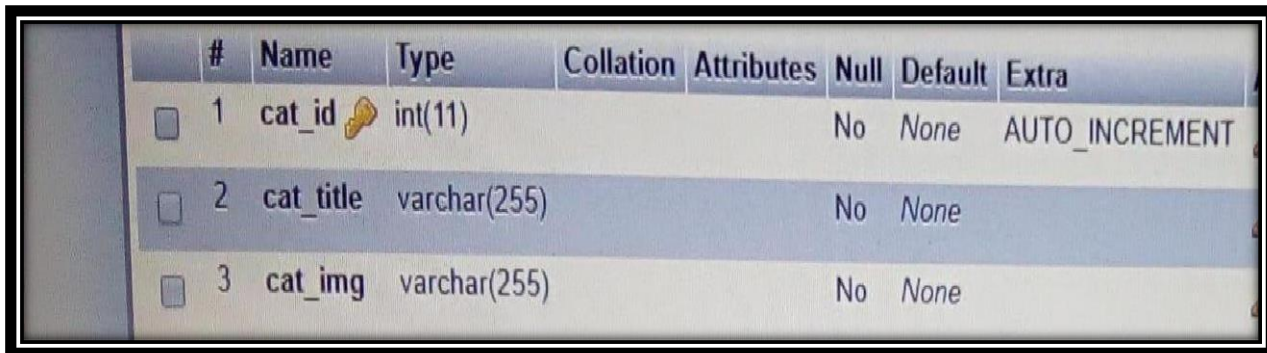
**Fig 3.7: Entity Relationship Diagram**

### **3.3 Database Design**

A good database design is crucial for a high-performance application, just as an Aerodynamic body is important to a race car. If the car doesn't have smooth lines, it will produce drag and go slower. Without optimized relationships, your database won't perform as efficiently as possible. Thinking about relationships and database efficiency is part of normalization.

Beyond the issue of performance is the issue of maintenance—your database should be easy to maintain. This includes storing only a limited amount (if any) of repetitive data. If you have a lot of repetitive data and one instance of that data undergoes a change (such as a name change), that change has to be made for all occurrences of the data. To eliminate duplication and enhance your ability to maintain the data, you might create a table of possible values and use a key to refer to the value. That way, if the value changes names, the change occurs only once in the master table. The reference remains the same throughout other tables.


#### **Table no 3.3.1 (categories)**

A screenshot of a database management system interface showing the structure of a table named 'categories'. The table has three columns: 'cat\_id' (int(11), primary key, auto-increment), 'cat\_title' (varchar(255)), and 'cat\_img' (varchar(255)). The interface includes checkboxes for each column and a yellow key icon for the primary key.

#	Name	Type	Collation	Attributes	Null	Default	Extra
<input type="checkbox"/> 1	cat_id	int(11)			No	None	AUTO_INCREMENT
<input type="checkbox"/> 2	cat_title	varchar(255)			No	None	
<input type="checkbox"/> 3	cat_img	varchar(255)			No	None	



**Table no 3.3.2 (orders)**


	#	Name	Type	Collation	Attributes	Null	
<input type="checkbox"/>	1	order_id 	int(11)			No	
<input type="checkbox"/>	2	order_amount	float			No	
<input type="checkbox"/>	3	order_transaction	varchar(255)			No	
<input type="checkbox"/>	4	order_status	varchar(255)			No	
<input type="checkbox"/>	5	order_currency	varchar(11)			No	

	#	Name	Type	Collation	Attributes	Null	
<input type="checkbox"/>	1	shop_id 	int(11)			No	
<input type="checkbox"/>	2	name	varchar(255)			No	
<input type="checkbox"/>	3	password	varchar(255)			No	
<input type="checkbox"/>	4	email	varchar(255)			No	
<input type="checkbox"/>	5	phoneno	bigint(50)			No	


**Table no 3.3.3 (shop)**



**Table no 3.3.4 (users)**


	#	Name	Type	Collation	Attributes	Null
<input type="checkbox"/>	1	user_id 	int(11)			No
<input type="checkbox"/>	2	name	varchar(255)			No
<input type="checkbox"/>	3	username	varchar(255)			No
<input type="checkbox"/>	4	email	varchar(255)			No
<input type="checkbox"/>	5	password	varchar(255)			No
<input type="checkbox"/>	6	phoneno	bigint(50)			No

**Table no 3.3.5 (report)**

	#	Name	Type	Collation	Attributes	Null
<input type="checkbox"/>	1	report_id 	int(11)			No
<input type="checkbox"/>	2	product_id	int(11)			No
<input type="checkbox"/>	3	product_title	varchar(255)			No
<input type="checkbox"/>	4	order_id	int(11)			No
<input type="checkbox"/>	5	product_price	float			No
<input type="checkbox"/>	6	product_quantity	int(11)			No

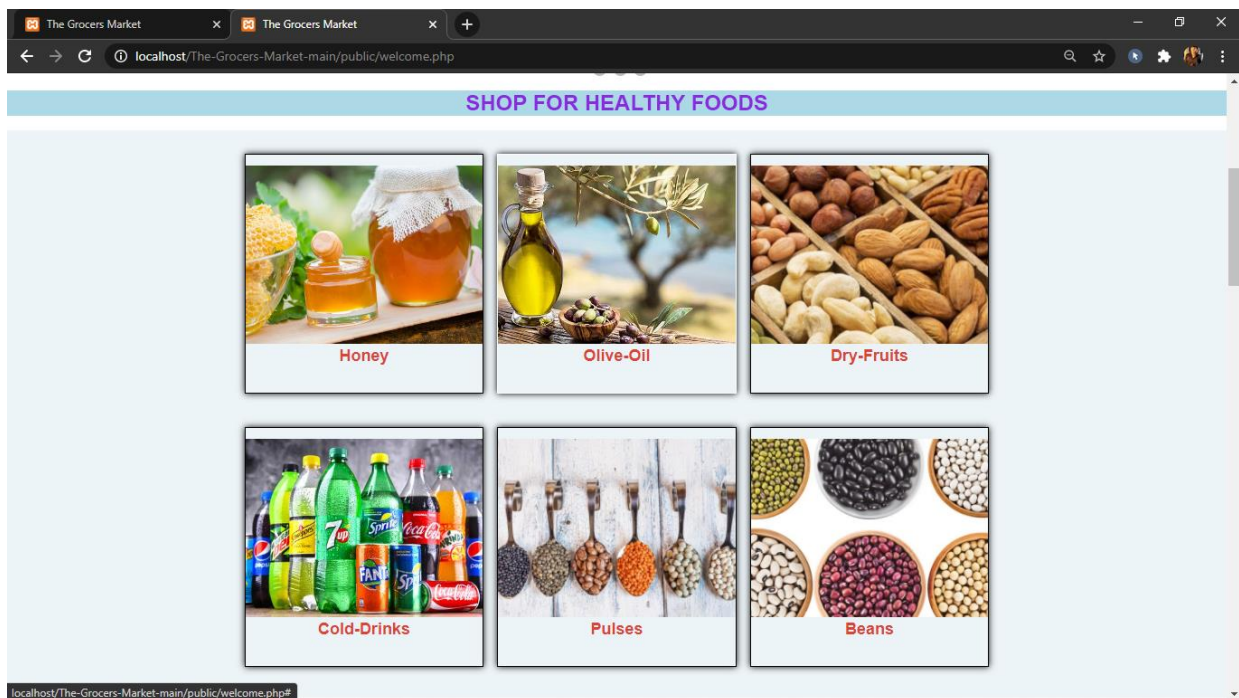
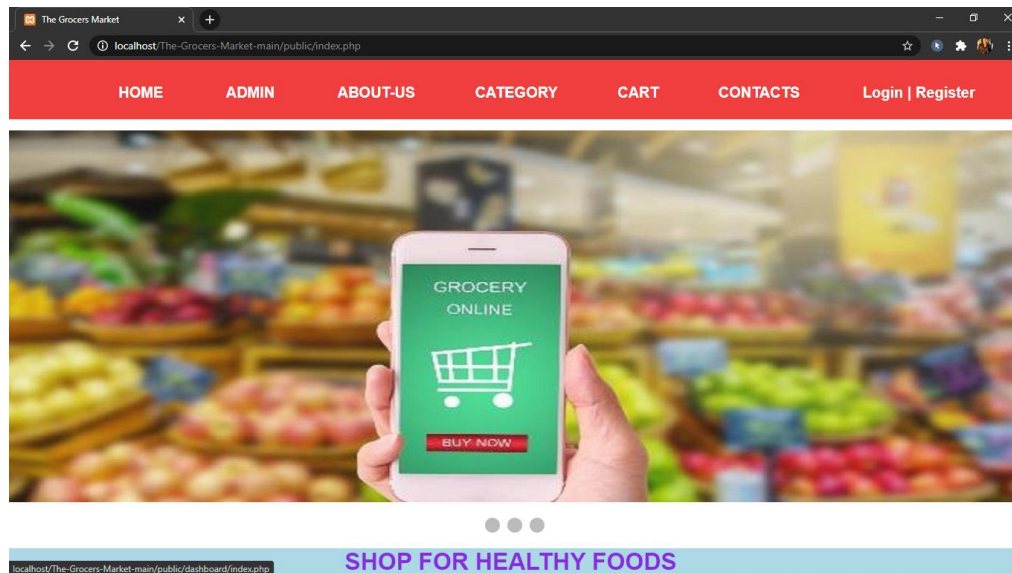


**Table no 3.3.6 (products)**

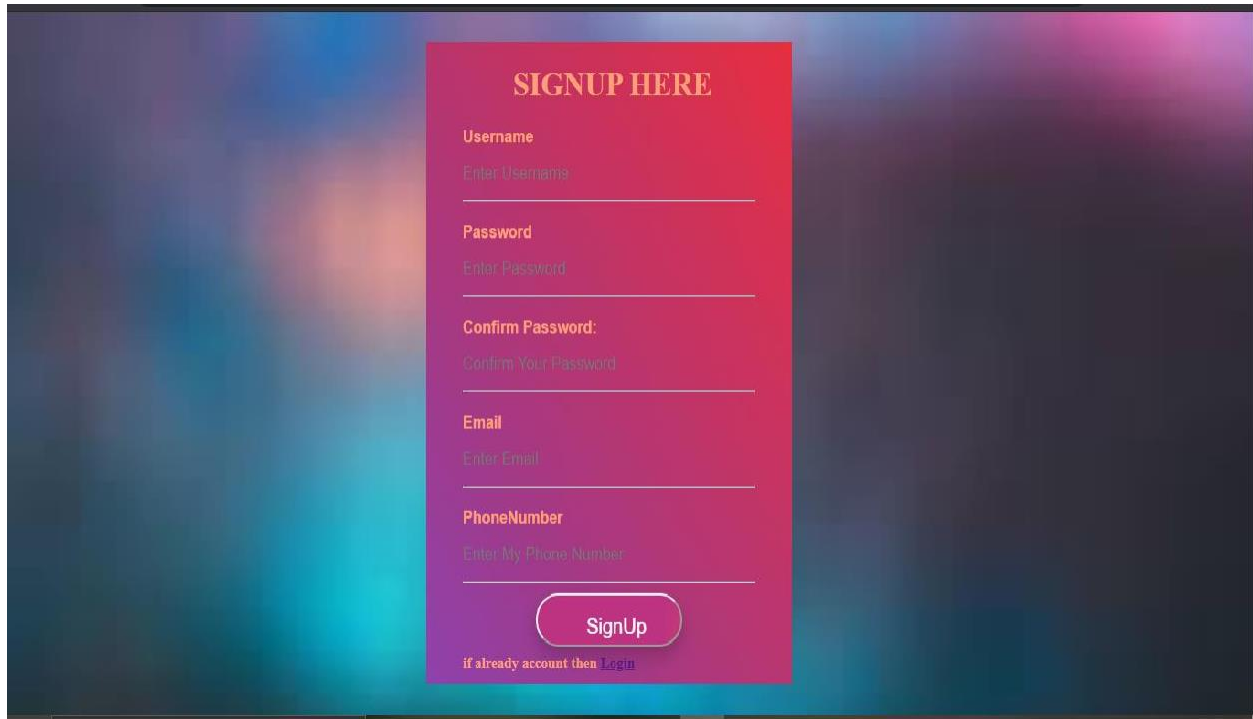
	#	Name	Type	Collation	Attributes	Null
<input type="checkbox"/>	1	product_id 	int(11)			No
<input type="checkbox"/>	2	product_title	varchar(255)			No
<input type="checkbox"/>	3	product_category_id	int(11)			No
<input type="checkbox"/>	4	product_price	float			No
<input type="checkbox"/>	5	short_description	text			No
<input type="checkbox"/>	6	product_description	varchar(1000)			No
<input type="checkbox"/>	7	product_image	varchar(255)			No
<input type="checkbox"/>	8	product_quantity	int(11)			No

## 4. Implementation and user Interface

**Fig.4.1: Home**

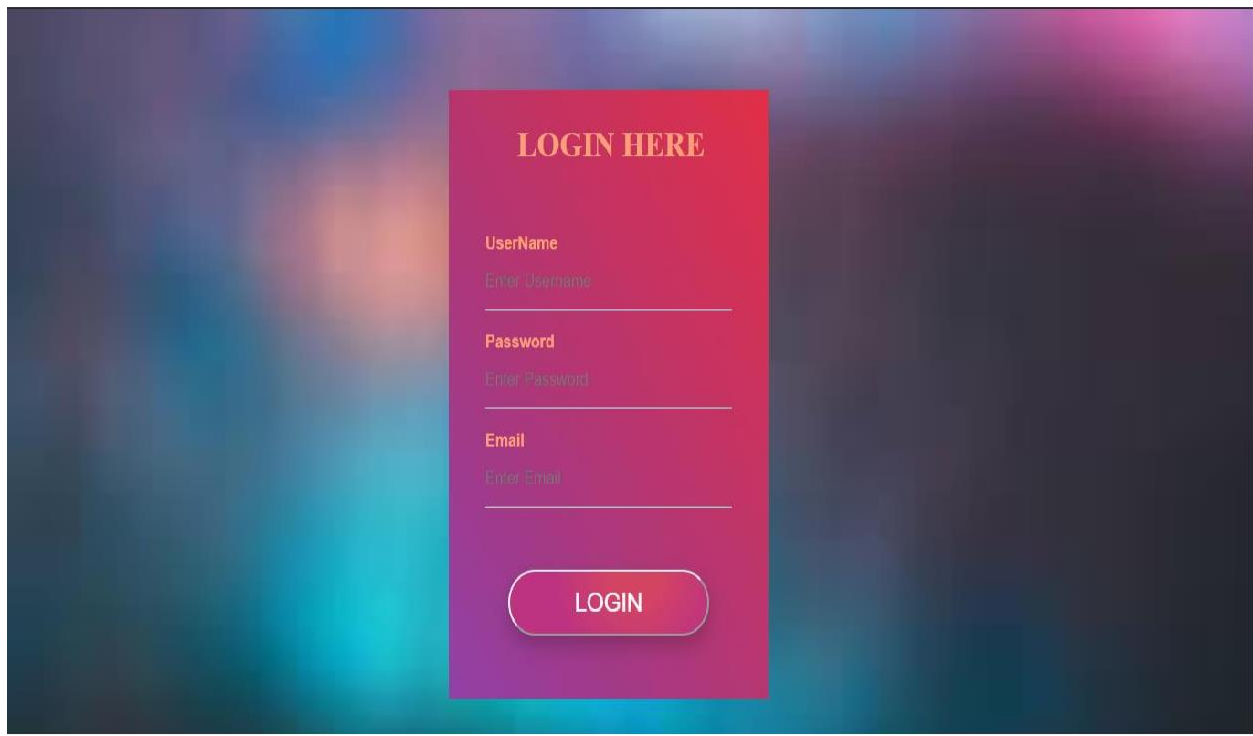


**Fig.4.2: Signup Admin**



A screenshot of a web application's admin signup page. The page has a dark, blurred background with a central white rectangular form. The form is titled "SIGNUP HERE" in bold black text. It contains six input fields, each with a label and a placeholder text: "Username" (placeholder: "Enter Username"), "Password" (placeholder: "Enter Password"), "Confirm Password:" (placeholder: "Confirm Your Password"), "Email" (placeholder: "Enter Email"), and "PhoneNumber" (placeholder: "Enter My Phone Number"). Below the input fields is a white rounded rectangular button labeled "SignUp". At the bottom of the form, there is a link that says "if already account then [Login](#)".

**Fig.4.3: Login Admin**



A screenshot of a web application's admin login page. The page has a dark, blurred background with a central white rectangular form. The form is titled "LOGIN HERE" in bold black text. It contains three input fields, each with a label and a placeholder text: "UserName" (placeholder: "Enter Username"), "Password" (placeholder: "Enter Password"), and "Email" (placeholder: "Enter Email"). Below the input fields is a white rounded rectangular button labeled "LOGIN".

**Fig.4.4: Orders List**



Admin
HOME
mukul

Orders
Reports
View Products
Add Product
Categories
Users

## Add Product

Product Title

Product Description

Short Description

Product Price

Publish

Product Category
Select Category

Product Quantity

Product Image

Choose File

No file chosen

**Fig.4.7: Adding Categories**

Admin
HOME
mukul

Orders
Reports
View Products
Add Product
Categories
Users

## Product Categories

Title

Category Image

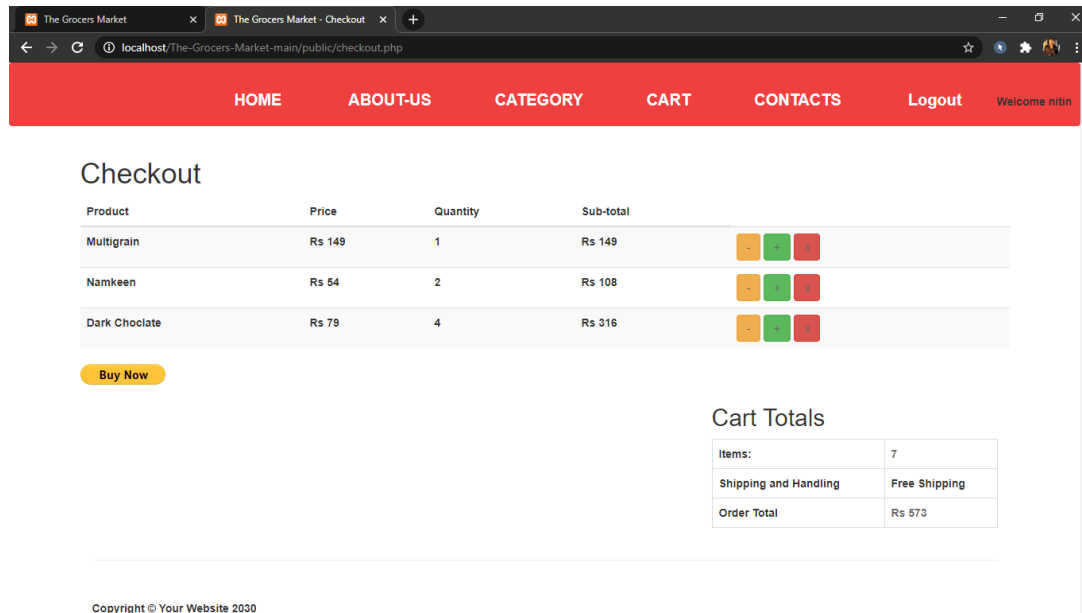
Choose File

No file chosen

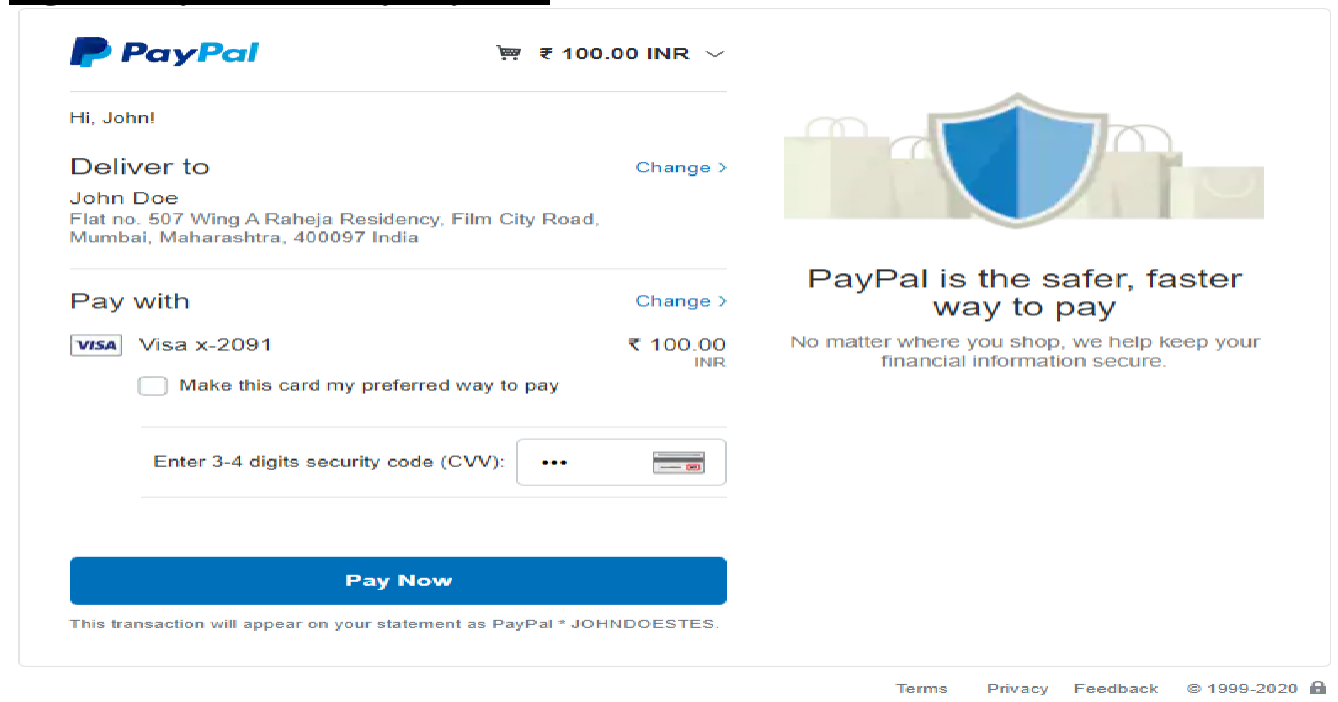
Add Category

id	Title	
1001	Bread & Bakery	<div>×</div>
1002	Dairy Products	<div>×</div>
1003	Beverages	<div>×</div>
1004	Clean Supplies	<div>×</div>
1005	Snack Foods	<div>×</div>
1006	Rice,Flour & Pulses	<div>×</div>
1007	Sweet & Chocolates	<div>×</div>
1008	Pasta & Noodles	<div>×</div>

**Fig.4.8: Adding Products to Cart**



**Fig.4.9: PayPal Gateway Payment**



**Fig.4.10: Last Step Of Payment**



**Added Protection**

Please submit your Verified by Visa password.

Merchant: PayPal

Amount: 100.00

Date: 05/22/2020

Card Number: \*\*\*\*\*0002

Personal Message: Password is "1234"

User Name: test1

Password:

[New User / Forgot your password?](#)

[? Help](#)

[Exit](#)



## **5. SOFTWARE TESTING**

### **5.1 Testing**

- Software testing is the process of executing a program with intension of finding errors in the code. It is a process of evolution of system or its parts by manual or automatic means to verify that it is satisfying specified or requirements or not.
- Generally, no system is perfect due to communication problems between user and developer, time constraints, or conceptual mistakes by developer.
- To purpose of system testing is to check and find out these errors or faults as early as possible so losses due to it can be saved.
- Testing is the fundamental process of software success.
- Testing is not a distinct phase in system development life cycle but should be applicable throughout all phases i.e. design development and maintenance phase.
- Testing is used to show incorrectness and considered to success when an error is detected.

### **5.2 Objectives of Software Testing**

#### **Software Quality Improvement:**

The computer and the software are mainly used for complex and critical applications and a bug or fault in software causes severe losses. So a great consideration is required for checking for quality of software.

#### **Verification and Validation:**

Verification means to test that we are building the product in right way .i.e. are we using the correct procedure for the development of software so that it can meet the user requirements.

Validation means to check whether we are building the right product or not.

### **5.3 Software Testing**

#### **Software Reliability Estimation:**

The objective is to discover the residual designing errors before delivery to the customer. The failure data during process are taken down in order to estimate the software reliability.



- **Principles of Software Testing**

- All tests should be traceable to end user requirements.
- Tests should be planned long before testing begins
- Testing should begin on a small scale and progress towards testing in large
- To be most effective testing should be conducted by an independent third party

The primary objective for test case design is to derive a set of tests that has the highest livelihood for uncovering defects in software. To accomplish this objective two different categories of test case design techniques are used. They are

- **White box testing.**
- **Black box testing.**

### **5.3.1 White-box testing:**

White box testing focus on the program control structure. Test cases are derived to ensure that all statements in the program have been executed at least once during testing and that all logical conditions have been executed.

### **5.3.2 Block-box testing:**

Black box testing is designed to validate functional requirements without regard to the internal workings of a program. Black box testing mainly focuses on the information domain of the software, deriving test cases by partitioning input and output in a manner that provides thorough test coverage. Incorrect and missing functions, interface errors, errors in data structures, error in functional logic are the errors falling in this category.

## **5.4 Testing fundamentals**

Testing is a process of executing program with the intent of finding error. A good test case is one that has high probability of finding an undiscovered error. If testing is conducted successfully it uncovers the errors in the software. Testing cannot show the absence of defects, it can only show that software defects present.

### **5.5 Testing Information flow**

Information flow for testing flows the pattern. Two class of input provided to test the process. The software configuration includes a software requirements specification, a design specification and source code.

Test configuration includes test plan and test cases and test tools. Tests are conducted and all the results are evaluated. That is test results are compared with expected results. When erroneous data are uncovered, an error is implied and debugging commences.

## **6. CONCLUSION**

This was the first considerably large and important project undertaken by me during my B.Tech course. It was an experience that changed the way I perceived project development. The coding could not be started before the whole system was completely finalized. Even then there were so many changes required and the coding needed to be changed. We attribute this to inadequate information gathering from the user. Though there were many meetings with the user and most of the requirements were gathered, a few misinterpretations of the requirements still crept in. It made me realize how important the systems analysis phase is. The project is a classic example, that learning of concepts needs to be supplemented with application of that knowledge.

On the whole it was a wonderful experience developing **THE GROCERS MARKET** and we would have considered my education incomplete without undertaking such a project which allowed us to apply all that I have learnt and tried to develop a project that can be useful for public. It is developed using PHP so that it can be accessed very easily and at any time. The system will be capable of providing flowers with their description to the users within a given time frame with no errors and the system will be available and operational all the time. The system is developed with an aim of usability so that it is an easy to use system that requires the least amount of user input possible. For using this system general computer knowledge is enough. An easy well-structured module will show the different types of flowers at one place and easy to choose. Users will be authenticated to place orders and to give their address details.

## **7.BIBLIOGRAPHY & REFERENCES**

To develop this web application of THE GROCERS MARKET, we used PHP, HTML,CSS and Bootstrap for Front End and SQL Server for Back End (Database).

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