ONLINE JEWELLERY SHOPPING WEBSITE

A Project Report

Submitted in partial fulfillment of the Requirements for the award of the Degree of

BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

By

KUNAL MEWALAL KEWAT

3845A026

Under the esteemed guidance of

Mrs. Vandana Kadam

Assistant Professor

DEPARTMENT OF INFORMATION TECHNOLOGY

THE KELKAR EDUCATION TRUST'S VINAYAK GANESH VAZE COLLEGE OF ARTS, SCIENCE AND COMMERCE (Autonomous)

(Affiliated to University of Mumbai)

MULUND, MAHARASHTRA, 400081

MAHARASHTRA

2021-2022

**THE KELKAR EDUCATION TRUST'S VINAYAK GANESH VAZE
COLLEGE OF ARTS, SCIENCE AND COMMERCE**

(Autonomous)

MULUND, MAHARASHTRA, 400081

DEPARTMETN OF INFORMATION TECHNOLOGY

CERTIFICATE

This is to certify that the projectentitled,"_____",

is   bonafied work of _____ bearing

Roll No:_____ submitted in partial fulfillment of the requirements for the award of

degree of BACHELOR OF SCIENCE in INFORMATIONTECHNOLOGY.

Internal Guide   **Head Of Department**

External Guide

Date:

THE APPROVAL PROJECT PROPOSAL

(Note:All entries of the proforma of approval should be filled up with appropriate and complete information. Incomplete proforma of approval in any respect will be summarily rejected.)

PNR **No : 2019016400150135**

1. Name of the Student	
Kunal Mewalal Kewat	
2. Title of the Project	
Jewellery store website	
3. Name of the Guide	
Vandana Kadam	
4. Is this your first submission?	
Yes	
Student Name :	Kunal Mewalal Kewat
Student Control ID :	2019060060
Student Roll No. :	A026

ACKNOWLEDGEMENT

I am glad to say that, I have satisfactorily reached my intentions to make this documentation.

However, it would not have been possible without the kind support and help of many individuals. I would like to extend my sincere thanks to all of them.

I am highly indebted of my guide, **Mrs. Vandana Kadam** for her guidance and constant supervision as well as for providing necessary information regarding the project.

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Then I would like to thank my parents who have helped me with their valuable suggestions and guidance which has been very helpful.

Last but not the least I would like to thank my classmates who have helped me a lot. Directly or indirectly their contribution was indispensable, and will always be remembered.

This opportunity has given me a valuable experience about software development for which I shall be thankful for the years to come.

DECLARATION

I here by declare that the project entitled, "**<u>Online Jewellery Shopping Website</u>** " done at place where the project is done, has not been in any case duplicated to submit to any other university for the award of any degree. To the best of my knowledge other than me, no one has submitted to any other university. The project is done in partial fulfillment of the requirements for the award of degree of BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY) to be submitted as final semester project as part of our curriculum.

Name : **<u>Kunal Mewalal Kewat</u>**

Signature :

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Synopsis

1. **Title:** Jewellery Store Website

2. **Statement about the problem**

   Online jewellery store website will help the customers to view the jewelleries of the different types, occasions, brands, for different people(of different age groups and genders), of different prices, materials, metals, etc. and do the shopping through the use of internet.

3. **Why This Topic**

   Internet is providing a as a channel now a days by consumers and vendors, Onlinejewellery store is usual or standard these days. The purpose is providing a platform for customers to shop virtually using internet, view many different and wide types and variety of jewelleries and to buy it by sitting at their home. Thus the computerization of a jewellery store will increase the ease, efficiency, and also reduce the chances of manual errors. This will also help the seller to increase its region and customers.

4. **Objective and scope**

   - Online Shopping of jewelleries
   - Variety of brands to choose from
   - See what is currently trending
   - Search/shop by occasions
   - Shop by materials
   - Search for Gifts in jewelleries
   - See the jewelleries of different regions and their specialities
   - A little Guide about different metals, stone which is used to make jewelleries which can be helpful for the buyer to know how to buy or what they are looking for or how to search,etc.

   Scope would be to provide basic functions using a web system so that the most of the manual functions or process can be automated.

5. **Methodology**

   To develop this system, I am going to use the Incremental model.

6. **Proposed Architecture**

   To create the system we will use the two tier architecture, the client-server architecture.
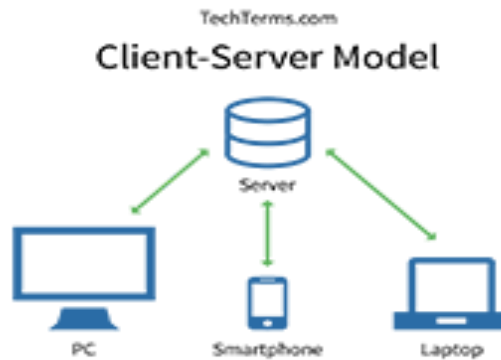
Fig 1.1 client server model

7. Requirement

7.1. Software Requirement

Frontend: HTML5

Javascript

CSS

Asp.net

Backend: mysql

7.2. Hardware Requirement

Processor: 1.9 gigahertz x86- or x64 bit dual core processor with SSE2 instruction set

Memory: 1 GB or more

Display: Super VGA with a resolution of 1024 x 768

8. Contribution

This website will help the help the customers to buy jewelleries from a wide variety of options and since all transaction will be online the jewelleries will be all certified and genuine. This will provide or work as a ground or platform for both the seller and buyer. It will also save the time and energy of physically visiting the different stores.

9. Conclusion

This system will ease the shopping operations for customers and sellers. It will increase the customers of the sellers and also increase the variety to shop from for the customers and at the best price and the best product. It will provide the seller functionality to manage the categories and products, customers will be able to browse and search products under different categories. The buyer will be able to add the selected product or item into the shopping cart in side and the buyer will be able to access separateley whenever he/she wants to and then look /check for the price, products, quantity and then buy it at their choice. This would be their one of the main functions other than the usual functions.

Chapter 1: <u>Introduction</u>

1.1 Background :

Jewels were always part of the human culture and life since the ancient times. As the advancement and growth was seen in the information and technology field the e-commerce and e-business also increased and as a result many or most of the businesses have now become online via the internet and the world wide web and as a result of this development now-a-days we can also see many websites that sell jewelleries over the internet. There are many famous websites that sell jewelleries like the Kalyan jewellers.com, bluestone.com, etc. this sites helps the buyer to purchase the jwllery from their home 24/ 7. The main goal of this sites is to sell the customers jewelleries at their convenience and ease.

1.2 Objectives :

The objectives of the system are as follows :

- To automate or provide features that are provided by a jewellery store to the buyer online.
- To add a home visit features by which the user can book an appointment with the seller to try or see the item at their house and then if they like it then they can buy it.
- A collection of child section jewelry.
- Customized jewelry feature.

1.3 Purpose, scope and applicability :

1.3.1 Purpose :

Is to provide the user solutions to the customer and vendor on the online jewelery stores, and build a site that is user friendly and easy to use by the different people or users.

1.3.2 Scope :

To bring various types of jewels at a single place for the customer so that he can easily buy different types of jewellery from their home some of which that are not possible or available in that region .

It consists of some limitations for customers like noticifications, messaging, etc but which can be improved in future.

1.3.3 Applicability :

- To bring the jewelery stores online and all of its function.

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- It will automate most of the human work which is hard and can be time consuming, reducing the burden.
- Bring the consumers and vendors closers, and increase the e-business and motivate more people to use the e-business in their business works.

1.4 Achievements :

My project helped me learn what are the different things involved while creating the website project and how should its planning and its initiations are to be carried and all the works involved before its coding and execution. It helped me to learn about various different tags of asp.net and C# and Bootstrap and how testing of a software is done.

Chapter 2 : <u>Survey Of Technologies</u>

1. **HTML :**

    HTML is a markup language. It provides the structures of a website so that the web browser know what to show.

2. **CSS :**

    It is a cascading style sheet. CSS let's web designers change colors, fonts, animations, and transitions on the web. They make the web look good.

    *   **LESS & SASS :**

        They are a CSS pre-compiler to make working with CSS easier and add functionality.

3. **Programming Languages :**

    *   **JavaScript :**

        JavaScript is a lightweight, interpreted, or just in time compiled programming language with first class function. While it is most well-known as the scripting language for webpages, many web browsers environments also use it, such as Node.js, Apache CouchDB, and adobe axrobat. JavaScript is a prototype based, multi-paradigm, single threaded, dynamic language, supporting object oriented, imperative and declarative(e.g. functional programming) styles. It is used by all web browsers, meteor and lots of other frameworks.

    *   **CoffeeScript:**

        It is a kind of "dialect" of javascript. It is viewed as simpler and easier on your eyes as a developer but it compiles or converts back into javascript. Coffeescript is an attempt to expose the good part of javascript in a simple way.the code compiles one to one into equivalent js and there is no interpretention at the runtime.you can use any existing javascript library seamlessely from coffeescript and vice-versa.the compiled output is readable, pretty-printed and tends to run as fast or faster than the equivalent handwritten javascript.

    *   **Python :**

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It is one of the highly used programming languages. It is used by the Django framework and used in a lot of mathematical calculations.

- **Ruby :**

Used by the ruby or rails framework. It is a dynamic, open source programming languages with a focus on simplicity and productivity. It has an elegant syntax that is natural to read and easy to understand.

- **PHP :**

Used by wordpress. Php is a popular general-purpose scripting language that is especially suited to web development. Fast, flexible and pragmatic, PHP powers everything from your blog to most popular websites in the world.

- **Java :**

Used by android(Google) and a lot of desktop applications. Java is a commonly used language for the web development, especially on the server-side. Java web applications are distributed applications that run on the internet. Web applications that run on the internet. Web development with java allows us to create dynamic web pages where user can interact with the interface.

4. **Frameworks :**

- **Node.js :**

It is a server-side javascript framework. It is a JavaScript runtime built on chrome's V8 JavaScript engine. As an asynchronous event-driven javascript runtime, Node.js is designed to build scalable network applications.

- **Django :**

Django is a high-level python web framework that encounters rapid development and clean, pragmatic design. Built by experienced developers, it takes cares of much of the hassle of web development, so you can focus on writing your app without needing to reinvent the wheel. It's free and open source.

- **Bootstrap :**

A UI(user interface) framework for building with HTML/CSS/JavaScript.

- **Foundation:**

A UI(user interface) framework for building with HTML/CSS/JavaScript.

- **Wordpress :**

    A CMS(content management system) built on php. Currently, about 20% of all websites run on this framework.

- **.NET :**

    It is a full-stack framework built by Microsoft. It includes a large class library called Framework class library and provides language interoperability across several programming languages.

- **Angular.js :**

    It is a front-end javascript framework. AngularJS lets you extend HTML vocabulary for your applications. The resulting environment is extraordinary expressive, readable, and quick to develop.

5. **Databases:**

    - **MongoDB :**

        It is an open-sourced NoSQL database and is currently the only database supported by Meteor. It's document data model naturally supports JSON and its expressive query language is simpler for developers to learn and use. Functionality such as automatic failover, horizontal scaling, and the ability to assign data to a location are built-in.

    - **Redis :**

        It is the most popular key-value store. It is lighting fast for retrieving data but doesn't allow for much depth in the data storage. It has built in replication ,Lua scripting, LRU eviction, transactions and different levels levels of on disk persistence,and provides high availability via Redis Sentinel and automatic partiioning with Redis Cluster.

    - **MySQL :**

        It is another popular open sourced SQL database. MySQL is used in wordpress websites.

    - **SQL server :**

        It is an SQL server manager created by Microsoft.

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6. **Data Formats :**

It is the structure of how the data is stored.

- **JSON :**

   It is quickly becoming the most popular data format. It is a lightweight data interchange format. It is easy for humans to read and write. It is easy for machines to parse and generate.

- **XML :**

   It was the main data format early in the web days and predominantly used by Microsoft systems.

- **CSV :**

   It's data is formatted with commas. Excel data is typically formatted this way.

The technologies/system which will be used for the creation of the systems are:

1) **HTML5**
2) **CSS**
3) **JAVASCRIPT**
4) **MS-SQL SERVER 2008**
5) **Asp.net**
6) **Bootstrap3**
7) **C#**

Chapter 3 : Requirements And Analysis

3.1 Problem Definition :

The system is built to make online shopping of jewelleries easy for the customer, so they can buy jewelery online just like how they do other shoppings online. The seller and the administrator will be able to add or remove a particular categories, items. The user will be able to browse different categories , book for a home visit, request for a customized item. The categories will contains a set of collections of a particular type of jewelery in each category for e.g. rings will contain all the rings, gold items will contain all gold items, necklaces will contain all the necklaces, etc. They can also search by or apply different filters like by price range, quality, brands, etc.

3.2 Requirement Specifications :

3.2.1 Requirement Gathering :

The information on requirement was gathered by asking some questions and taking some opinions of different peoples. The questionnaire was prepared and passed by using Google forms, the link of the form is https://forms.gle/M6QtbJihZfEZfeTh8.

The questions that were asked are as follows :

1. What type of mode for shopping jewellery would you prefer
2. Are you more likely to buy jewellery for yourself or as a gift
3. Do you prefer Hallmark & Certified jewelleries
4. Do you like to get your own customized or custom-made jewelleries according to your preferences
5. Would you like a home visit and trial feature for the jewellery you saw online
6. Do you want a good and proper customer feedback and response system
7. Would you like a jewellery guide that will help you to know about the different gems, metals and the how to choose which one you want
8. What mode of payment do you prefer
9. What is the Criteria by which you normally browse jewellery while buying it
10. While buying jewellery do you see whether you are getting good customer and after sales service
11. What type of jewellery do you prefer

12. Is there any features or idea that you would want to be present in the Jewellery Shopping Website

13. What are the difficulties or any problem or anything that you don't like while purchasing jewelleries online

Based on these above questions the responses of the people who filled the form was recorded and they are all shown below :

Name	Gender	1.) What type of mode	2.) Are you more lik	3.) Do you pre	4.) Do you like to	5.) Would you	6.) Do you want a	7.) Would you like a
kunal kewat	Male	Online	Both	Yes	Yes	Yes	Yes	Yes
Chirag Gupta	Male	Offline	Gift	Yes	Maybe	Yes	Yes	Maybe
Neel Narwadkar	Male	Offline	Both	Maybe	Maybe	Yes	Yes	Yes
Tanvi Rane	Female	Offline	For Myself	Maybe	Yes	Yes	Yes	Yes
Aayush	Male	Offline	Both	Yes	Yes	Maybe	Yes	Maybe
Bhavika Raul	Female	Offline	Gift	Yes	Yes	No	Yes	Maybe
Sarthak Thikekar	Male	Online	Both	Yes	Yes	Yes	Yes	Yes
Ankur Chauhan	Male	Offline	Both	Yes	Yes	Yes	Yes	Yes
Shonal	Female	Offline	For Myself	Yes	Yes	Yes	Yes	Yes
Aishwarya Suresh Randive	Female	Online	For Myself	Yes	Yes	Maybe	Yes	Yes
Kunal Badade	Male	Offline	Both	Yes	Yes	Yes	Yes	Yes
Shweta Salunkhe	Female	Offline	Gift	Yes	Yes	Yes	Yes	Yes
Prajwal Shet	Male	Offline	Both	Yes	Yes	Maybe	Yes	Yes
Payal	Female	Offline	For Myself	Yes	Yes	Yes	No	Yes
Royal	Female	Offline	Both	Yes	No	Maybe	No	Yes
Arjun	Male	Online	Gift	Maybe	Yes	Yes	Yes	Yes
Pooja Bachchu	Female	Offline	Both	Maybe	Yes	Yes	Yes	Yes
Shlok Patil	Male	Offline	Gift	Yes	No	Yes	Yes	Yes
Tejaswee Lashkare	Female	Online	For Myself	Yes	Yes	Yes	Yes	Yes
Ankita Gupta	Female	Online	Both	Yes	Maybe	Yes	Yes	Yes
Pranita Salian	Female	Offline	Both	Yes	Yes	Yes	Yes	Yes
Sudeep Sawant	Male	Online	Both	Yes	Yes	Yes	Yes	Yes

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8.) What mode of paymer	9.) What is the Criteria by which you normally browse jewellery while	10.) While buying	11.) What type of jewellery do you prefer
Cash	Cost, Quality, Trend, Brand, Good customer service, Occassion	Yes	Rings, Necklaces, Ear nose or nose pins, imitation, Coins/biscuits
Debit/Credit card	Cost, Quality, Occassion	Yes	Rings, Coins/biscuits
UPI Tranfer	Cost, Quality, Trend	Yes	Necklaces, Bangles or Bracelets
Cash	Cost, Quality, Trend, Good customer service	Maybe	Rings, Necklaces, Bangles or Bracelets, Brooch or pin, Ear nose or nose pins, Cuff links
Debit/Credit card	Cost, Quality, Trend, Brand, Good customer service	Maybe	Rings, Bangles or Bracelets, Coins/biscuits
UPI Tranfer	Cost, Quality, Brand, Good customer service	Yes	Rings, Necklaces, Brooch or pin, Earrings
Debit/Credit card	Cost, Quality	Yes	Rings
Debit/Credit card	Cost, Quality, Occassion	Yes	Rings, Necklaces, Bangles or Bracelets, Brooch or pin, Ear nose or nose pins, Cuff links, imitation, Coins/biscuits
Cash	Cost, Quality, Trend, Good customer service, Occassion	Yes	Rings, Necklaces, Bangles or Bracelets, Ear nose or nose pins
Cash	Quality	Maybe	Rings
Debit/Credit card	Cost, Quality, Trend, Brand	Yes	Rings, Necklaces, Bangles or Bracelets
UPI Tranfer	Cost, Quality, Trend, Brand	Yes	Rings, Bangles or Bracelets
Cash	Occassion	Yes	Rings
Cash	Cost, Quality, Brand, Occassion	Yes	Necklaces, Brooch or pin, Ear nose or nose pins
Debit/Credit card	Cost, Brand	Yes	Rings, Bangles or Bracelets, Brooch or pin, Ear nose or nose pins
UPI Tranfer	Cost, Quality, Brand, Good customer service	Yes	Rings, Bangles or Bracelets, Coins/biscuits
UPI Tranfer	Cost, Quality, Trend, Good customer service, Occassion	Maybe	Rings, Necklaces, Bangles or Bracelets, imitation
Cash	Cost, Quality, Brand, Good customer service	Yes	Rings, Coins/biscuits
UPI Tranfer	Cost, Quality, Trend, Brand	Yes	Rings, Necklaces, Bangles or Bracelets
Debit/Credit card	Cost, Quality, Trend, Brand	Yes	Rings, Necklaces
Debit/Credit card	Cost, Quality, Good customer service, Occassion	Yes	Rings, Necklaces, Bangles or Bracelets
Cash	Cost, Quality, Brand, Good customer service	Maybe	Rings, Cuff links, Coins/biscuits

Fig 3.1 requirements gathered

The response to the problems that they normally seek are :

- Don't receive product as shown in pictures

- Sometimes it may be fake or less carat gold than expected.

- Duplicate jewellery

- That the products seen online and on order they look so much different. Quality Compromises are their.

The response about any features that they wished there was in the website are as follows :

- 3D trial, same as offered on lenskart must be accurate and not a gimmick.

- Notification when the price of gold will be lowest of month

- Searching option on basis of name of jewellery. Such as if I type necklace all preference of necklace should be shown not other option.

- Various Varieties , Trending jewellery , user friendly website.

3.2.2.) Requirement Analysis :

3.2.2.1.) Functional Requirements :

- **Browsing the item:**

    The user can browse the different prices, its price, details, features, seller, its availability and its other information.

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- **Genuine:**

    All the items that are sold in the website should be Genuine and proper, the user must not get any false items and low quality goods.

- **Searching :**

    This will allow the user to search the item by its name.

- **Invoice :**

    Proper bill of the order which contains the order id, payment type and amount, and the customer details who purchased it should be created with every order.

- **Manage the items :**

    The seller/administrator should be able to manage the items and add/remove a item.

- **Product Description :**

    Proper description will be given to the respective products along with the images.

3.2.2.2.)Non-Functional Requirements :

- **Satisfaction:**

    The user must be satisfied of all the purchase that is been done and this can only be achieved if the user gets the proper item, delivery, services, etc.

- **Delivery :**

    The user must get proper delivery and on time on which it is said to be delivered and the item that he had booked and it shouldn't be damaged in the delivery process.

- **Customer- Feedback:**

    All the customers queries and complaints should be solved efficiently and fast, and proper response should be given to the customer.

- **Security :**

    All the data regarding the customer information's, their purchases, their payment information, etc should be secured and should not be disclosed to anyone and not be misused

- **Availability :**

    The system must work properly without any failure in it and it should be a stable system.

- **Quality :**

  The website and all the items quality must be good and should and what is expected by the people who asked for it or the user, it shouldn't provide a less quality product(both website and the items) than what is expected to be and have been mentioned.

- **Efficiency :**

  It is the extent to which the software system handles capacity, throughput, and response time.

- **Portability :**

  It provides the ease with which a software system can be transferred from its current hardware or software environment to another environment, how a software will work on different systems.

- **Reliability :**

  The system should be reliable and should work under the stated conditions.

3.3) System Requirements :

- **Registration :**

  The user must first register its account in order to use the site. Without registering the user will be able to use the website but will be limited to only browsing the items in it.

  - Input : User Details
  - Output : Registration successful
  - PreCondition : No existing user with same credentials
  - PostCondition : User able to login in with his/her account

- **Login :**

  After registering the user will have to login in the system by the username/id and the password and after it is verified by the registered id and password the user will be logged in the system.

  - Input : username and password
  - Output : successful login
  - PreCondition : user should be registered
  - PostCondition : moved to user home page

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- **Cart :**

  The user will be able to add the products or items they like in the cart for their future ease in finding the product and buying.
  - Input : add product to cart
  - Output : product added to cart
  - PreCondition : user should have logged in
  - PostCondition : item available in cart

- **Categories :**

  Different products will be placed in different categories to which it belong so it will be easier to find a certain type of product by accessing the categories to which it belongs.
  - Input : search category
  - Output : show the categories item
  - PreCondition : valid category
  - PostCondition : all item in the category are shown

- **Filters :**

  While browsing and searching the products the user can apply different filters they want like a price range, brand, metal, gems, etc. which will make it easier to search products based on the certain filter or choices.
  - Input : apply filter
  - Output : products display according to filter
  - PreCondition : valid filter
  - PostCondition : filter applied

- **Guide :**

  There will be a guide which will tell the user about the different types of jewelleries and the basis on which they are made and what does a certain type or cutting, etc mean when we see the item or its description when we buy it.
  - Input : clicked on guide page
  - Output : guide page available

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- PreCondition : guide book selected
- PostCondition : user is able to see guide book

- **Search bar :**

    The user can simply type the name of the product inside the search bar and search the products.

    - Input : product name
    - Output : shows the result of search
    - PreCondition : product with that name available
    - PostCondition : shows the list of products with the search result

- **Brands :**

    There will be different brands available and the user can see the different products that are available in the brands.

    - Input : brand name
    - Output : shows product of that brand
    - PreCondition : brand available on site
    - PostCondition : shows all product of the brand

3.3. Task Table and Gantt Chart :

Task No.	Task Name	Starting Date	Ending Date	Actual Starting Date	Actual Ending Date
T1	Synopsis	26-Jun-21	29-Jun-21	26-Jun-21	2-Jul-21
T2	Approval	4-Jul-21	6-Jul-21	4-Jul-21	10-Jul-21
T3	Chapter-1 Introduction	6-Jul-21	9-Jul-21	6-Jul-21	24-Jul-21
T4	Chapter-2 Survey of Technology	13-Jul-21	17-Jul-21	14-Jul-21	20-Jul-21
T5	Chapter-3 .1 Requirement Gathering	20-Jul-21	24-Jul-21	20-Jul-21	9-Aug-21

T6	Chapter-3.2 Requirement Analysis	27-Jul-21	31-Jul-21	29-Jul-21	9-Aug-21
T7	Chapter 3.3 Task Table and Gantt Chart	10-Aug-21	13-Jul-21	10-Aug-21	25-Aug-21
T8	Chapter 4 System Design 4.1 Business rule 4.2 Module Diagram 4.3 Er Diagram	24-Aug-21	30-Aug-21	24-Aug-21	5-Sep-21
T9	Chapter 4.4 Schema Diagram	30-Aug-21	3-Sep-21	30-Aug-21	8-Sep-21
T10	Chapter 4.5 Data flow diagram	3-Sep-21	7-Sep-21	6-Sep-21	19-Sep-21
T11	Chapter 4.6 Class Diagram	20-Sep-21	24-Sep-21	20-Sep-21	25-Sep-21
T12	Chapter 4.7 Use Case Diagram	20-Sep-21	24-Sep-21	20-Sep-21	6-Oct-21
T13	Chapter 4.8 Sequence Diagram	4-Oct-21	8-Oct-21	4-Oct-21	11-Oct-21
T14	Chapter 4.9 Activity Diagram	5-Oct-21	9-Oct-21	5-Oct-21	11-Oct-21
T15	Chapter 4.10 State Chart Diagram	6-Oct-21	10-Oct-21	6-Oct-21	11-Oct-21
T16	Chapter 4.11 UI Design	10-Oct-21	13-Oct-21	10-Oct-21	11-Oct-21
T17	Chapter 4.12 Test Cases	17-Oct-21	19-Oct-21	17-Oct-21	15-Oct-21
T18	**Re-engineering** Chapter 1	20-Nov-21	21-Nov-21	20-Nov-21	21-Nov-21
T19	Chapter 2	20-Nov-21	21-Nov-21	20-Nov-21	21-Nov-21
T20	Chapter 3	21-Nov-21	22-Nov-21	21-Nov-21	22-Nov-21

T21	Chapter 4	22-Nov-21	23-Nov-21	22-Nov-21	23-Nov-21
T22	**Unit 1 : Registration & Login Page** Design Module login	30-Nov-21	1-Dec-21	30-Nov-21	1-Dec-21
T23	Debugging Module login	1-Dec-21	2-Dec-21	1-Dec-21	2-Dec-21
T24	Testing Module login	1-Dec-21	2-Dec-21	1-Dec-21	2-Dec-21
T25	Design Module register	2-Dec-21	3-Dec-21	2-Dec-21	3-Dec-21
T26	Debug Module register	3-Dec-21	4-Dec-21	3-Dec-21	4-Dec-21
T27	Testing Module register	3-Dec-21	4-Dec-21	3-Dec-21	4-Dec-21
T28	Integrating Unit 1	4-Dec-21	5-Dec-21	4-Dec-21	5-Dec-21
T29	Debugging 1	4-Dec-21	5-Dec-21	4-Dec-21	5-Dec-21
T30	Testing Unit 1	4-Dec-21	5-Dec-21	4-Dec-21	5-Dec-21
T31	**Unit 2 : Home Page** Design Home Page	6-Dec-21	8-Dec-21	7-Dec-22	9-Dec-22
T32	Debugging Home Page	8-Dec-21	9-Dec-21	9-Dec-22	10-Dec-22
T33	Testing Home Page	9-Dec-21	10-Dec-21	10-Dec-22	11-Dec-22
T34	Unit Integration 1 & 2	11-Dec-21	13-Dec-21	11-Dec-22	13-Dec-22
T35	Debugging	12-Dec-21	13-Dec-21	13-Dec-22	14-Dec-22
T36	Testing	13-Dec-21	14-Dec-21	13-Dec-22	14-Dec-22
T37	**Unit 3: Admin Home Page** Design Admin Home Page	14-Dec-21	16-Dec-21	14-Dec-22	16-Dec-22
T38	Debugging Admin Home Page	16-Dec-21	17-Dec-21	16-Dec-22	17-Dec-22
T39	Testing Admin Home Page	16-Dec-21	17-Dec-21	17-Dec-22	18-Dec-22

T40	Unit Integration 1&2&3	18-Dec-21	20-Dec-21	19-Dec-22	20-Dec-22
T41	Debugging	18-Dec-21	19-Dec-21	20-Dec-22	21-Dec-22
T42	Testing	19-Dec-21	20-Dec-21	21-Dec-22	23-Dec-22
T43	**Unit 4 : Add Products** Design Add Products	21-Dec-21	28-Dec-21	23-Dec-22	8-Jan-22
T45	Debugging Add Products	29-Dec-21	2-Jan-21	8-Jan-22	9-Jan-22
T46	Testing Add Products	2-Jan-21	3-Jan-21	9-Jan-22	10-Jan-22
T47	Unit Integration 1 2 3 4	3-Jan-21	5-Jan-21	10-Jan-22	11-Jan-22
T48	Debugging	6-Jan-21	7-Jan-21	11-Jan-22	12-Jan-22
T49	Testing	7-Jan-21	8-Jan-21	11-Jan-22	12-Jan-22
T50	**Unit 5: View Products** View Products Design	9-Jan-21	11-Jan-22	12-Jan-22	14-Jan-22
T51	View Products Debugging	11-Jan-22	12-Jan-22	15-Jan-22	16-Jan-22
T52	View Products Testing	12-Jan-22	13-Jan-22	15-Jan-22	16-Jan-22
T53	Unit Integration 1 2 3 4 5	13-Jan-22	14-Jan-22	16-Jan-22	17-Jan-22
T54	Debugging	15-Jan-22	16-Jan-22	17-Jan-22	18-Jan-22
T56	Testing	16-Jan-22	17-Jan-22	18-Jan-22	19-Jan-22
T57	**Unit 6: Edit Products &** **Categories** Edit Products & Categories Design	17-Jan-22	19-Jan-22	20-Jan-22	22-Jan-22
T58	Edit Products & Categories Debugging	19-Jan-22	20-Jan-22	22-Jan-22	23-Jan-22
T59	Edit Products & Categories Testing	20-Jan-22	21-Jan-22	23-Jan-22	24-Jan-22
T60	Unit Integration	21-Jan-22	22-Jan-22	24-Jan-22	25-Jan-22
T61	Integration Debugging	22-Jan-22	23-Jan-22	25-Jan-22	26-Jan-22

T62	Integration Testing	24-Jan-22	25-Jan-22	26-Jan-22	27-Jan-22
T61	**Unit 7: User Cart** Cart Design	25-Jan-22	27-Jan-22	28-Jan-22	30-Jan-22
T62	Cart Debugging	27-Jan-22	28-Jan-22	30-Jan-22	31-Jan-22
T63	Cart Testing	28-Jan-22	29-Jan-22	1-Feb-22	1-Feb-22
T64	Unit Integration	29-Jan-22	30-Jan-22	2-Feb-22	3-Feb-22
T65	integration Debugging	30-Jan-22	31-Jan-22	3-Feb-22	4-Feb-22
T66	integration testing	31-Jan-22	1-Feb-22	4-Feb-22	5-Feb-22
T67	**Unit 8: Categories View** Categories View Design	2-Feb-22	5-Feb-22	5-Feb-22	7-Feb-22
T68	Categories View Debugging	5-Feb-22	6-Feb-22	7-Feb-22	8-Feb-22
T69	Categories View Testing	5-Feb-22	6-Feb-22	8-Feb-22	9-Feb-22
T70	Unit Integrations	6-Feb-22	7-Feb-22	9-Feb-22	10-Feb-22
T71	Integration Debugging	7-Feb-22	8-Feb-22	10-Feb-22	11-Feb-22
T72	Integration Testing	7-Feb-22	8-Feb-22	11-Feb-22	12-Feb-22
T73	**Unit 9: Review** Review Design	8-Feb-22	9-Feb-22	12-Feb-22	13-Feb-22
T74	Review Debugging and Testing	9-Feb-22	10-Feb-22	13-Feb-22	14-Feb-22
T75	Unit Integration	10-Feb-22	11-Feb-22	13-Feb-22	14-Feb-22
T76	Integration Debugging	11-Feb-22	12-Feb-22	14-Feb-22	15-Feb-22
T77	Integration Testing	12-Feb-22	13-Feb-22	15-Feb-22	16-Feb-22
T78	**Unit 10 : Search Products** Search Design	14-Feb-22	16-Feb-22	16-Feb-22	17-Feb-22
T79	Search Debugging	16-Feb-22	17-Feb-22	17-Feb-22	18-Feb-22

T80	Search Testing	17-Feb-22	18-Feb-22	18-Feb-22	19-Feb-22
T81	Unit Integration	18-Feb-22	19-Feb-22	19-Feb-22	20-Feb-22
T82	Integration Debugging	19-Feb-22	20-Feb-22	20-Feb-22	21-Feb-22
T83	Integration Testing	20-Feb-22	21-Feb-22	21-Feb-22	22-Feb-22
T84	**Unit 11 : Buy Products** Buy Design	22-Feb-22	28-Feb-22	23-Feb-22	3-Mar-22
T85	Buy Debugging	28-Feb-22	1-Mar-22	3-Mar-22	4-Mar-22
T86	Buy Testing	1-Mar-22	2-Mar-22	4-Mar-22	5-Mar-22
T87	Unit Integration	2-Mar-22	3-Feb-22	5-Mar-22	6-Mar-22
T88	Integration Debugging	4-Mar-22	5-Mar-22	6-Mar-22	7-Mar-22
T89	Integration Testing	6-Mar-22	7-Mar-22	7-Mar-22	8-Mar-22

Table 3.1 Task Table

Task Name	Time	26June -9July	10-23July	24July -6Aug	7-20Aug	21Aug -3Sep	4-17Sep	18Sep -1 oct	2-15Oct	16-29Oct	20Nov -3Dec	4-17Dec	18-31Dec	1-14Jan	15-28Jan	29Jan -11Feb	12-26 Feb	26Feb -12March
Synopsis	Expected / Actual																	
Approval	Expected / Actual																	
Chapter-1 Introduction	Expected / Actual																	
Chapter-2 Survey of Technology	Expected / Actual																	
Chapter-3 .1 Requirement Gathering	Expected / Actual																	
Chapter-3.2 Requirement Analysis	Expected / Actual																	
Chapter 3.3 Task Table and Gantt Chart	Expected / Actual																	
Chapter 4 System Design	Expected / Actual																	
Chapter 4.4 Schema Diagram	Expected / Actual																	
Chapter 4.5 Data flow diagram	Expected / Actual																	
Chapter 4.6 Class Diagram	Expected / Actual																	
Chapter 4.7 Use Case Diagram	Expected / Actual																	
Chapter 4.8 Sequence Diagram	Expected / Actual																	
Chapter 4.9 Activity Diagram	Expected / Actual																	
Chapter 4.10 State Chart Diagram	Expected / Actual																	
Chapter 4.11 UI Design	Expected / Actual																	
Chapter 4.12 Test Cases	Expected / Actual																	
Re-engineering Chapter-1	Expected / Actual																	
Chapter 2	Expected / Actual																	
Chapter 3	Expected / Actual																	
Chapter 4	Expected / Actual																	
Unit 1 : Registration & Login Page	Expected / Actual																	
Unit 2 : Home Page	Expected / Actual																	
Unit 3: Admin Home Page	Expected / Actual																	
Unit 4 : Add Products	Expected / Actual																	
Unit 5: View Products	Expected / Actual																	
Unit 6: Edit Products & Categories	Expected / Actual																	
Unit 7: User Cart	Expected / Actual																	
Unit 8: Categories View	Expected / Actual																	
Unit 9: Review	Expected / Actual																	
Unit 10 : Search Products	Expected / Actual																	
Unit 11 : Buy Products	Expected / Actual																	

Figure 3.2 Gantt Chart

Chapter 4 : System Design

4.1. Business Rule :

- When the web application is opened the user can either use it as a guest user or a registered user.
- The guest user can only browse and see the different items, categories in the website.
- The registered user will be able to use all the features that the guest user can use plus they can use other features that are present like using the cart, order the product.
- If a user is already registered then they can simply login by entering their email/phone number and the password.
- While registering the user will have to a password which will be composed of minimum 1 capital letter, 1 small letter, 1 number, 1 special character, and the length of the password will be between 8 to 16.

4.2. Module Diagram :

Module diagram is a diagram which is used for showing the allocation of classes and objects to module in the physical design of a system. Module Diagram indicates the partitioning of the system architecture. Through these diagram , it is possible to understand the general physical architecture of a system. The two essential elements of a module diagram are modules and their dependencies.
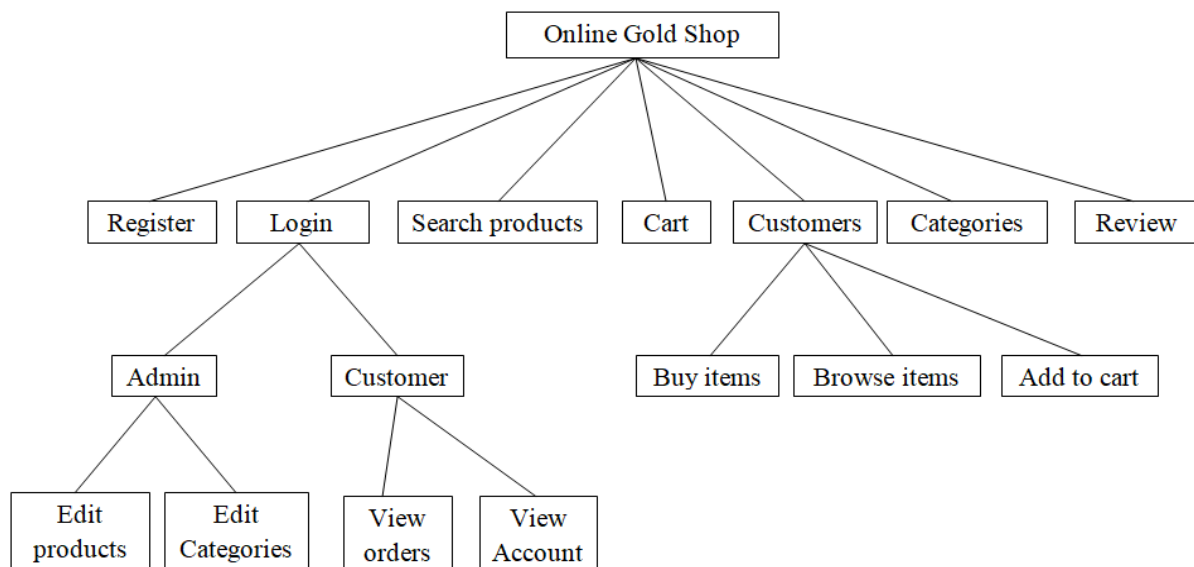
Fig 4.1 Module diagram

20

4.3. ER Diagram :
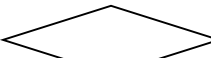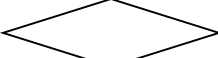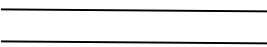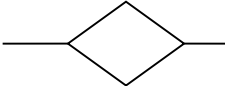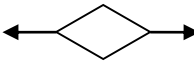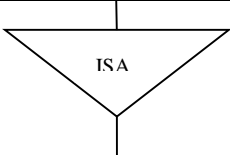
Name	Symbol	Description
Rectangle		Entity Set
Double Rectangle		Weak entity set
Eclipse		Attribute
Double Eclipse		Multivalued Attribute
Dotted Eclipse		Derived Attribute
Diamond		Relationship set
Double Diamond		Multi Valued attributes
Line		Links attribute to entity set or entity set to a relationship set
Double Line		Represents Total participation of entity
Many to many		Many to many relationship
Many to One		Many to One Relationship
One to One		One to One
IS A	ISA	IS A(Specialization or Generalization)

Table 4.1 Er diagram notations

4.3.1. Entity Sets :

- Customer :

    It will contain all the details of the customer that are registered in the system.

  Attributes:

    ➢ Customer id

    ➢ Name

    ➢ Phone number

    ➢ Email

    ➢ Password

    ➢ City

    ➢ Pincode

    ➢ State

    ➢ Address
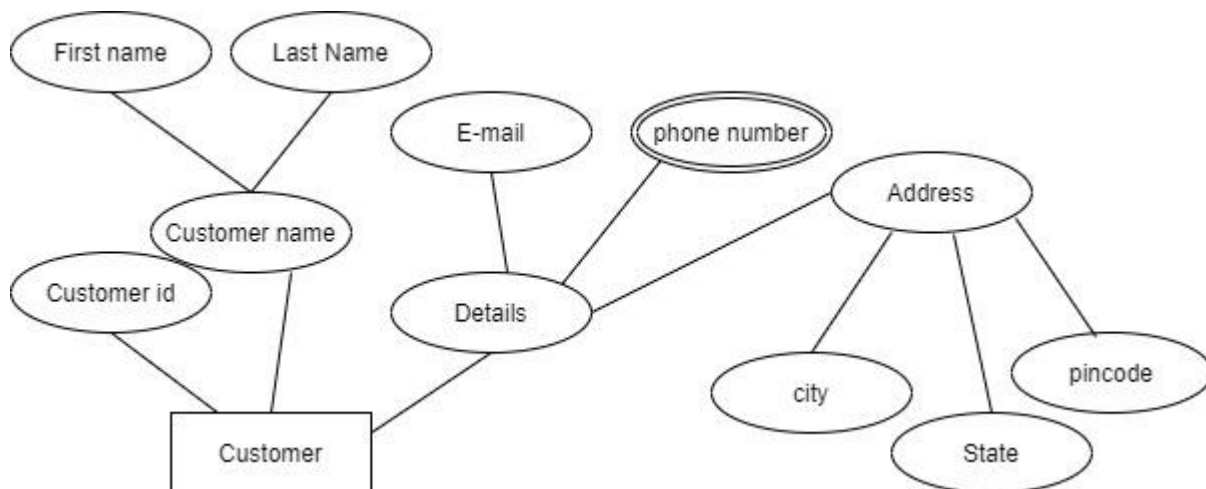
Fig 4.3.1.1 customer entity set

- Order :

    It will contain the details about the order that are made by the customer

  Attributes:

    ➢ Order id

    ➢ Customer id

    ➢ Customer name

    ➢ Order number

    ➢ Order details

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➢ Order date

➢ Order quantity
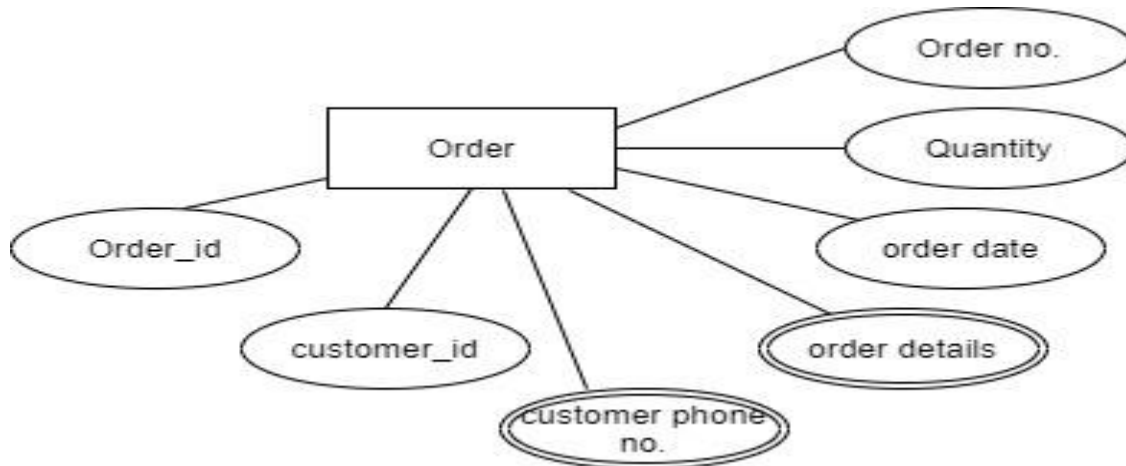
Fig 4.3.1.2 order entity set

- Category :

    It has the details about the various category that are used.

  Attributes :

    ➢ Category Id

    ➢ Category name

    ➢ Description
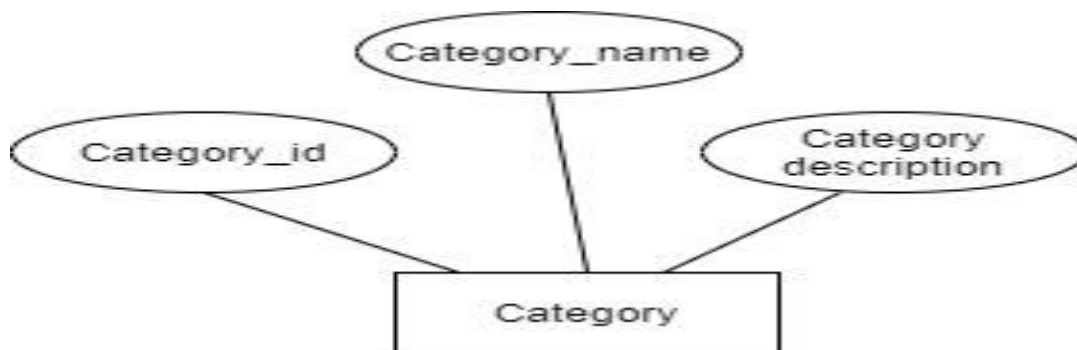
Fig 4.3.1.3 category entity set

- Product:

    It contains the details about the products that are present in the system.

  Attributes:

    ➢ Product id

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- ➢ Product name
- ➢ Product Description
- ➢ Product Price
- ➢ Product type
- ➢ Stock
- ➢ Category name
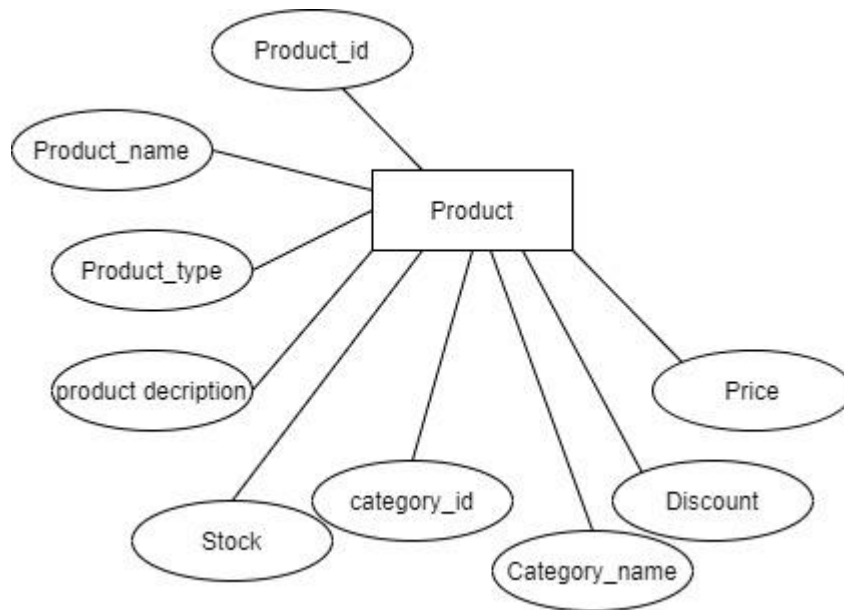
Fig 4.3.1.4 product entity set

- • Billing info:

    It will contain the information about the order that is placed and its billing information.

Attributes:

- ➢ Bill date
- ➢ Billing address
- ➢ Billing id
- ➢ Payment method
- ➢ Order id
- ➢ Customer name
- ➢ Address
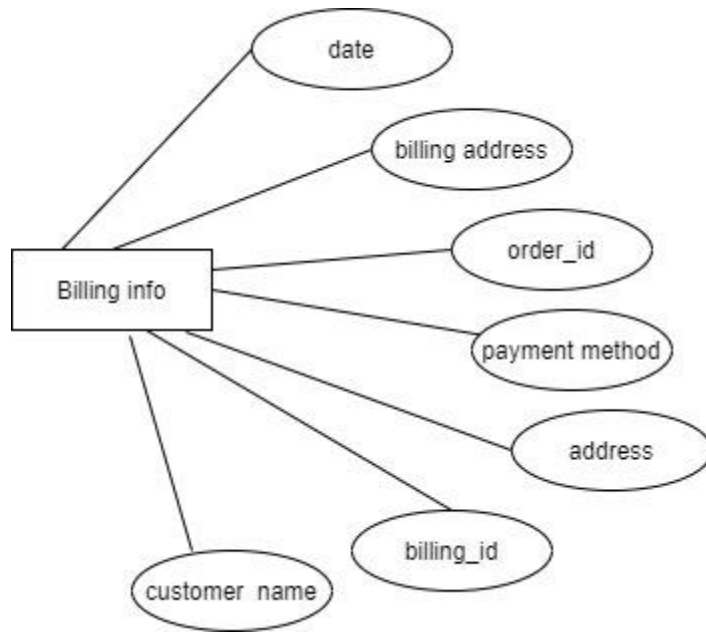
Fig 4.3.1.5 billing info entity set

- Cart :

    It will have the details about the products that are been saved in the cart.

Attributes :

- ➢ Product id
- ➢ Product name
- ➢ product price
- ➢ Grand total
- ➢ Product type
- ➢ Subtotal
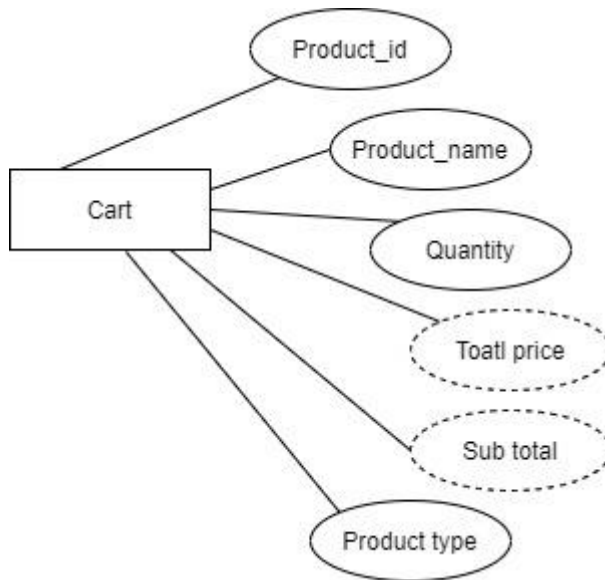
Fig 4.3.1.6 cart entity set

- Feedback :

    It will store the feedback given by the customer.

Attributes :

- ➢ Email
- ➢ Review
- ➢ Name
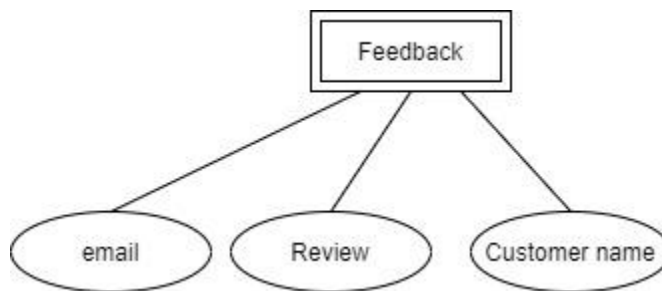
Fig 4.3.1.7 Feedback entity set

4.3.2. Relationship Sets :

- Feedback entity set and Customer entity set:
    - ▪ Feedback will use the details of the customers while executing.
    - ▪ It will have a one to many cardinality.

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Fig 4.3.2.1 customer feedback relation

- Order entity set and Customer entity set :
    - while doing the order the order entity set will use the various information of the customer entity set
    - It will have a one to many cardinality.
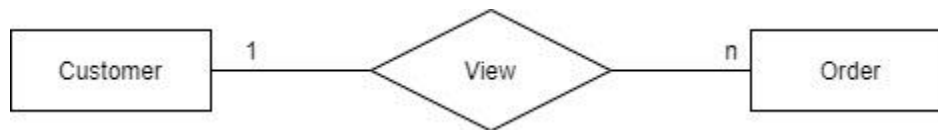
Fig 4.3.2.2 customer order relation

- Billing info entity set and Order entity set :
    - When the bill will be prepared it be depended on the order entity set for the details
    - It will have an one to many cardinality
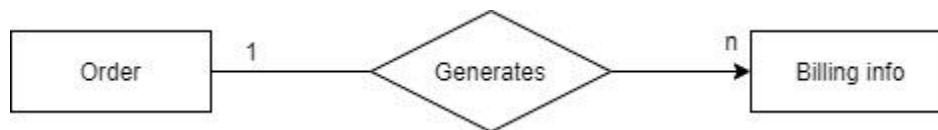
Fig 4.3.2.3 order billing info relation

- Product entity set and Category entity set :
    - Each product will belong to a certain category that are present in the database.
    - It will have a one to many cardinality
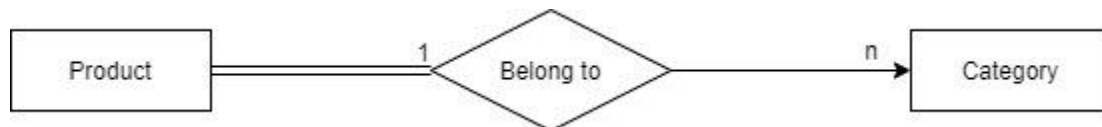
Fig 4.3.2.4 product & category relation

- Cart entity set and product entity set :
    - Cart will store products in it so it will have a relationship with product entity set
    - It can have a many to many cardinality

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Fig 4.3.2.1 Product & cart relation

4.3.3. ER Diagram:
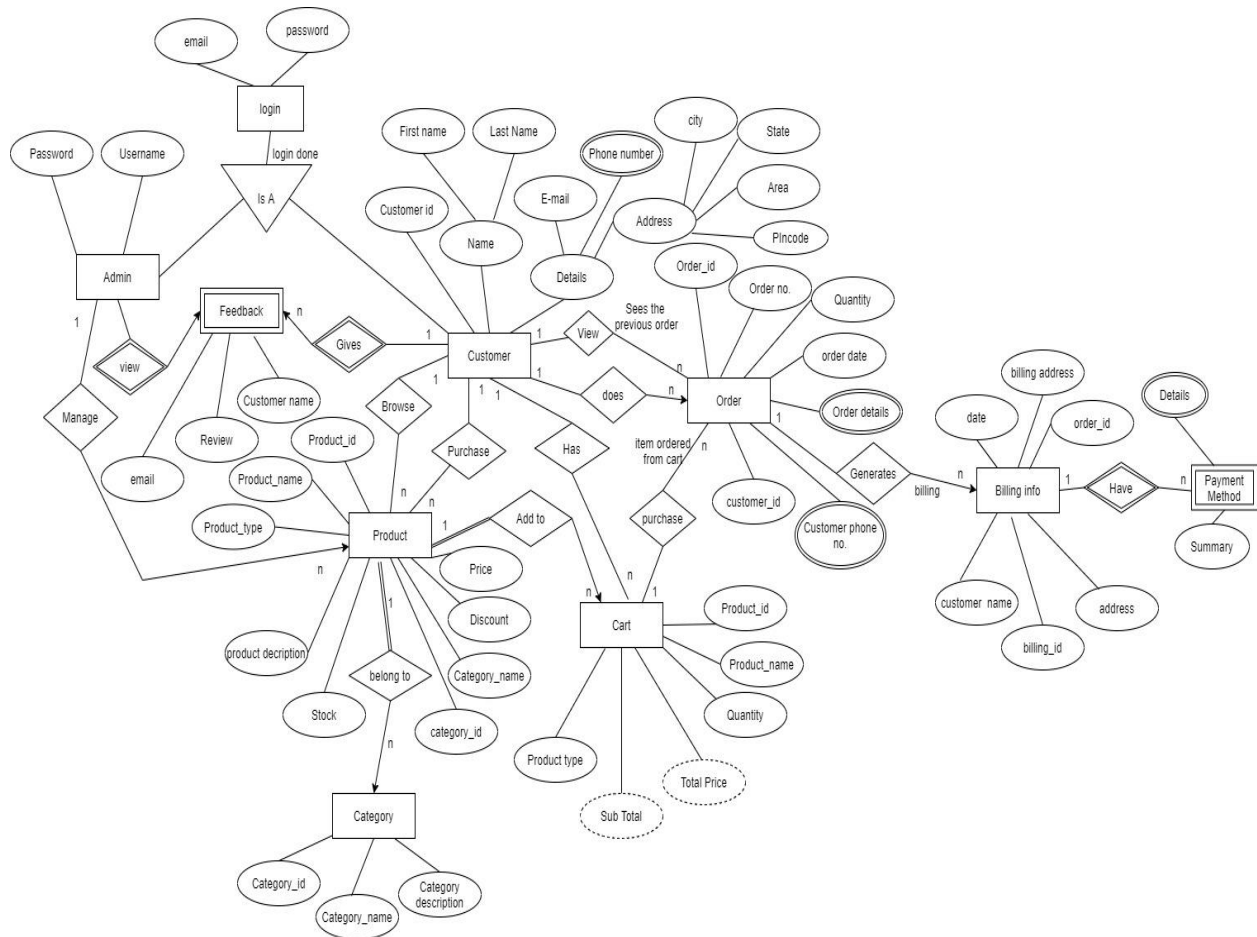
Fig 4.3 er diagram

4.4 Schema Diagram :

A database schema is the skeleton structure that represents the logical view of the entire database. It defines how the data is organized and how the relations among them are associated. It formulates all the constraints that are to be applied on the data.

Symbols :

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Name	Symbol	Description
Table		A table is a collection of related data held in table format within a database.
Relational	→	In a relational database system, a one-to-one table relationship links two tables based on a Primary Key column in the child which is also a Foreign Key referencing the Primary Key of the parent table row. Therefore, we can say that the child table share the Primary Key with the parent table.

Table 4.2 Schema diagram notations

User
User_name
User_Address
User_Phone no
user_email

Admin
admin_id
admin_name
admin_phone no

Category
category_id
category_name

Cart
Cart_id
product_id
product_name
product_details

Product
product-id
product_name
product_description
product_price
category_name

Order
Order_id
Order_details
Product_details
Payment_details
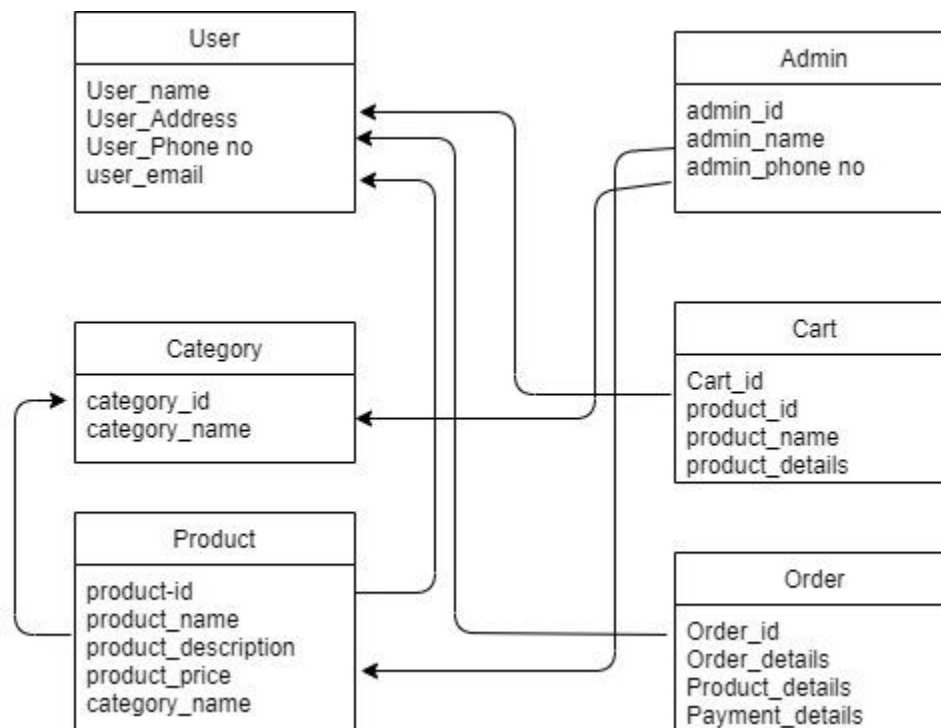
Fig 4.4 schema diagram

4.5 Data Flow Diagram(DFD) :

A data-flow diagram is a way of representing a flow of data through a process or a system (usually an information system). The DFD also provides information about the outputs and inputs of each entity and the process itself. A data-flow diagram has no control flow — there are no decision rules and no loops. Specific operations based on the data can be represented by a flowchart.

Symbols :
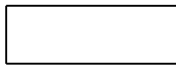
Name	Symbols	Description
Data Process		A process transforms incoming data flow into outgoing data flow
Data Store		Data store are the repositories of data in the system
Data Flow		Data flow are pipelines through which packets of information flow. Label the arrows with the name of the data with the name of the data that moves through it.

Table 4.3 DFD Notations

Level 0 for Online jewellery shopping website :

Fig 4.5 level 0 DFD

30
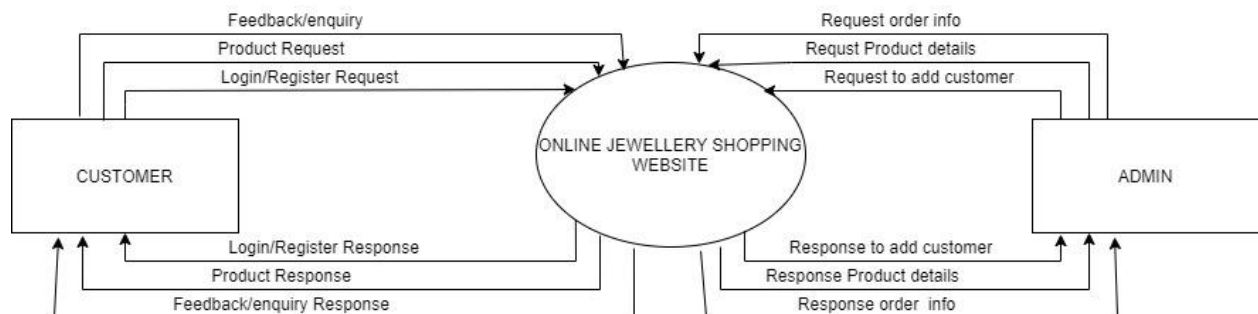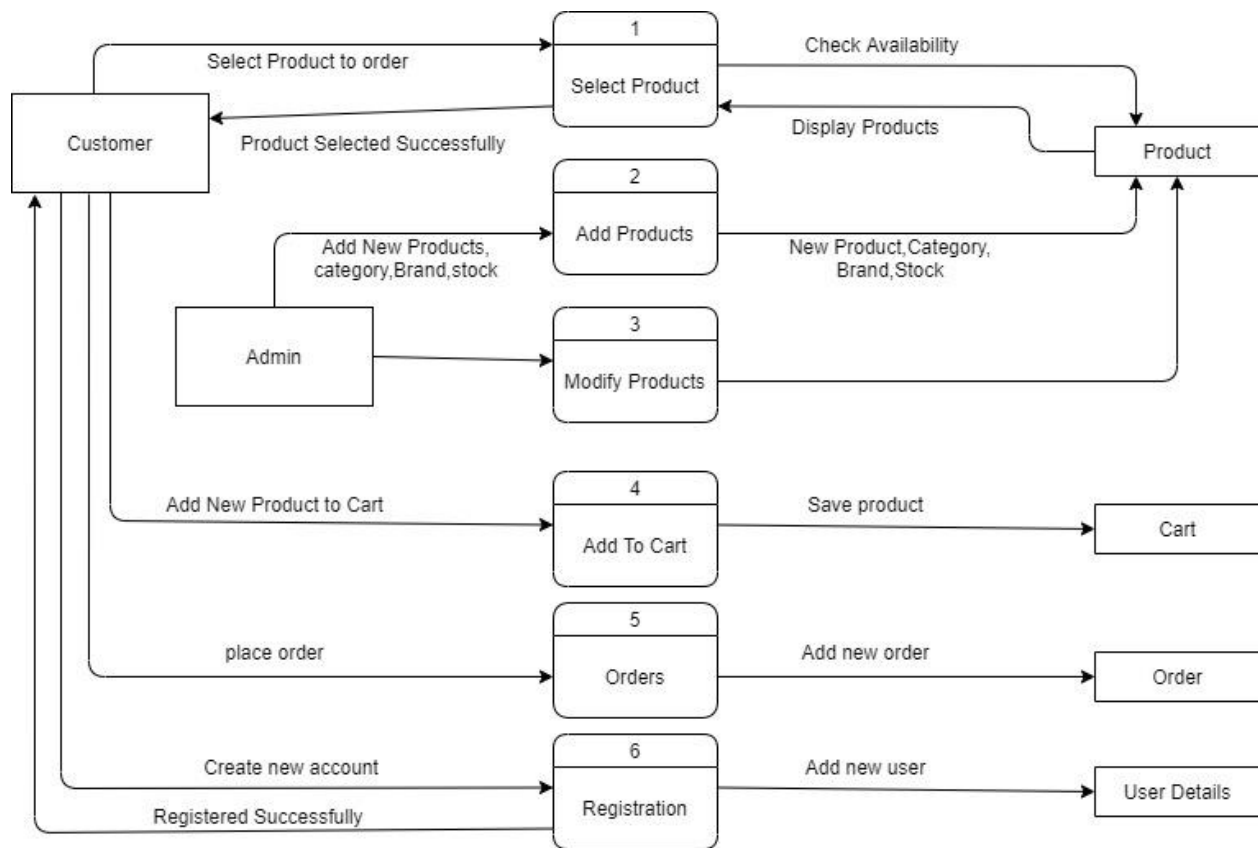
DFD Level 1 :

Fig 4.5.1 level 1DFD

DFD Level 2 Add new Products :
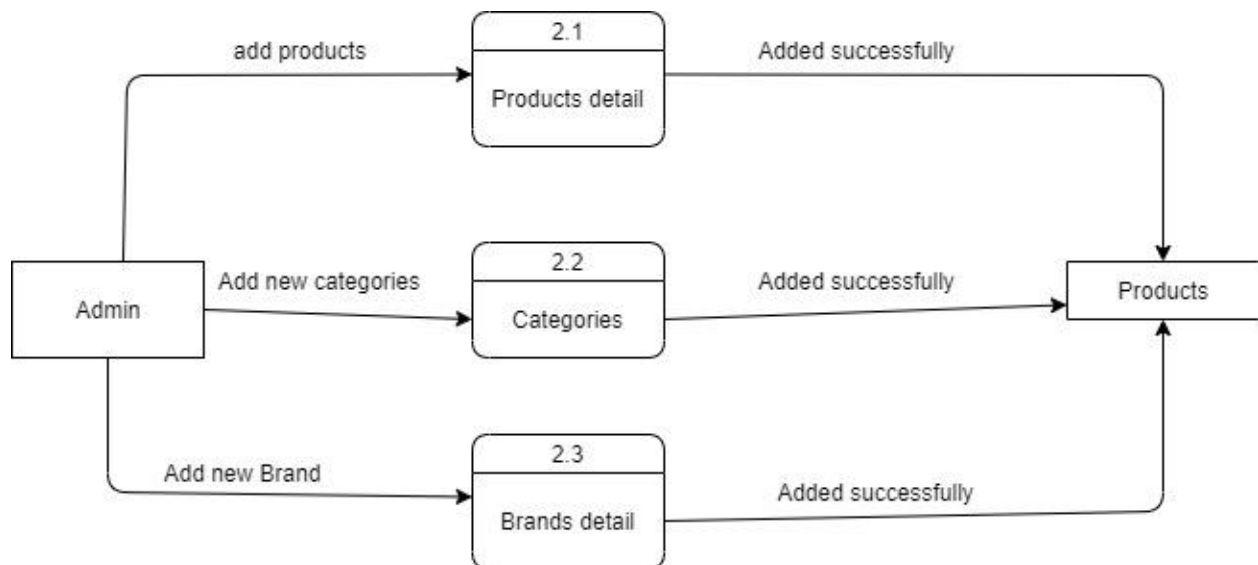
Fig 4.5.1.1 DFD Level2 add new products

31

DFD Level 2 Modify Products :
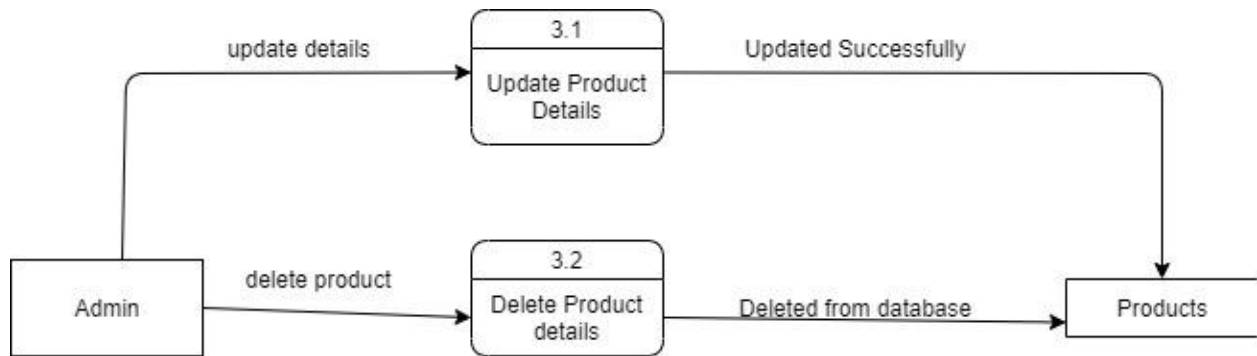
Fig 4.5.1.2 DFD Level2 modify products

DFD Level2 User Cart :
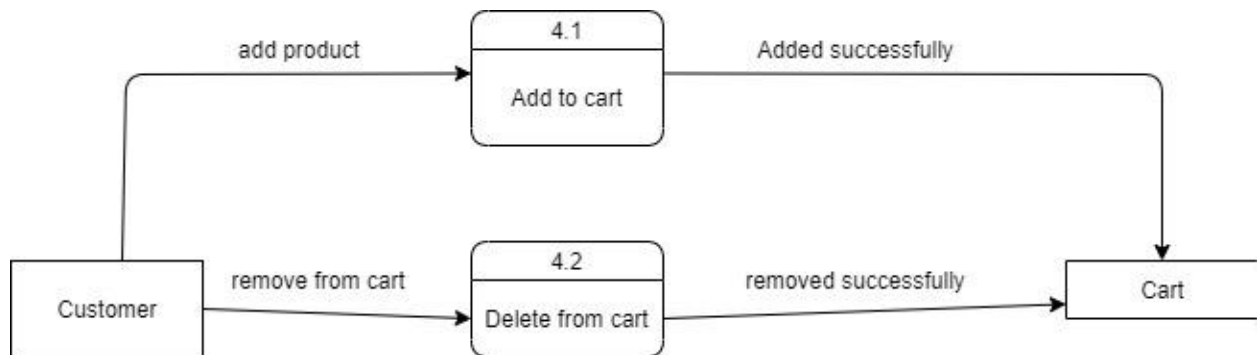
Fig 4.5.1.3 DFD Level2 User Cart

DFD Level2 User order :
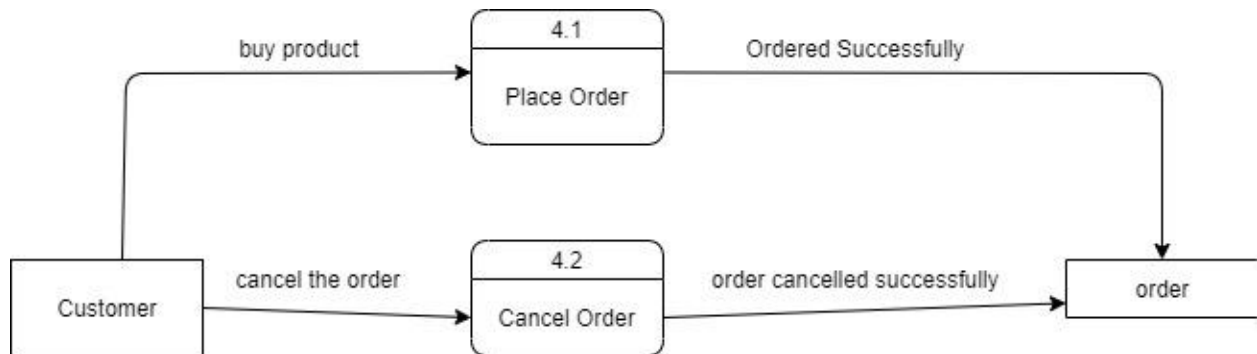
Fig 4.5.1.4 DFD Level2 order

DFD Level2 Register :
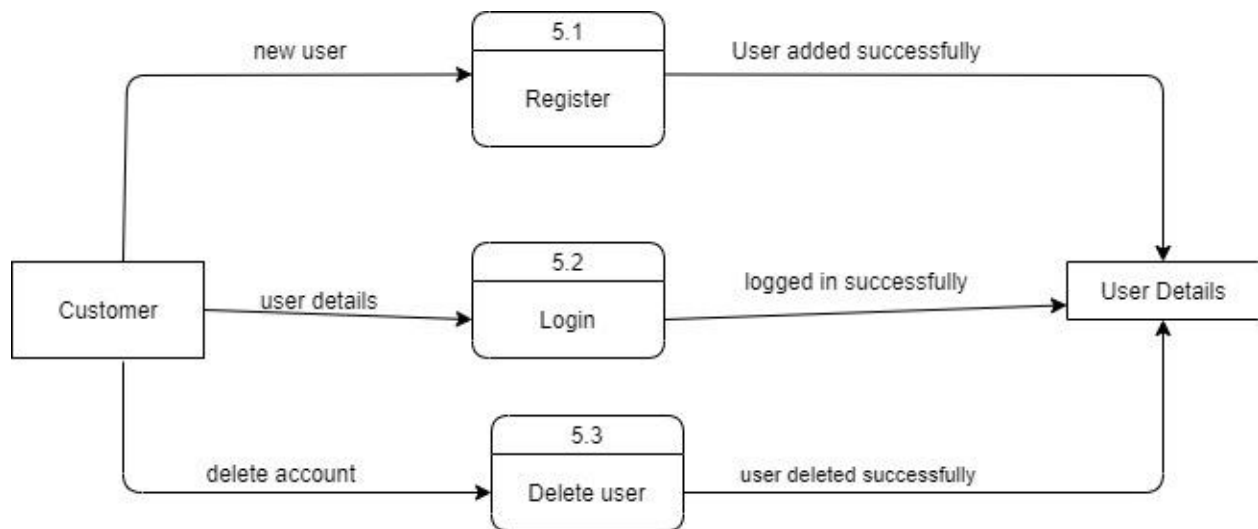
Fig 4.5.1.5 DFD Level2 Register

4.6 Class Diagram :

A class diagram in the Unified Modeling Language (UML) is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects.

The class diagram is the main building block of object-oriented modeling. It is used for general conceptual modeling of the structure of the application, and for detailed modeling, translating the models into programming code. Class diagrams can also be used for data modeling. The classes in a class diagram represent both the main elements, interactions in the application, and the classes to be programmed.

In the diagram, classes are represented with boxes that contain three compartments:

- The top compartment contains the name of the class. It is printed in bold and centered, and the first letter is capitalized.
- The middle compartment contains the attributes of the class. They are left-aligned and the first letter is lowercase.

The bottom compartment contains the operations the class can execute. They are also left-aligned and the first letter is lowercase.

Symbols :

33

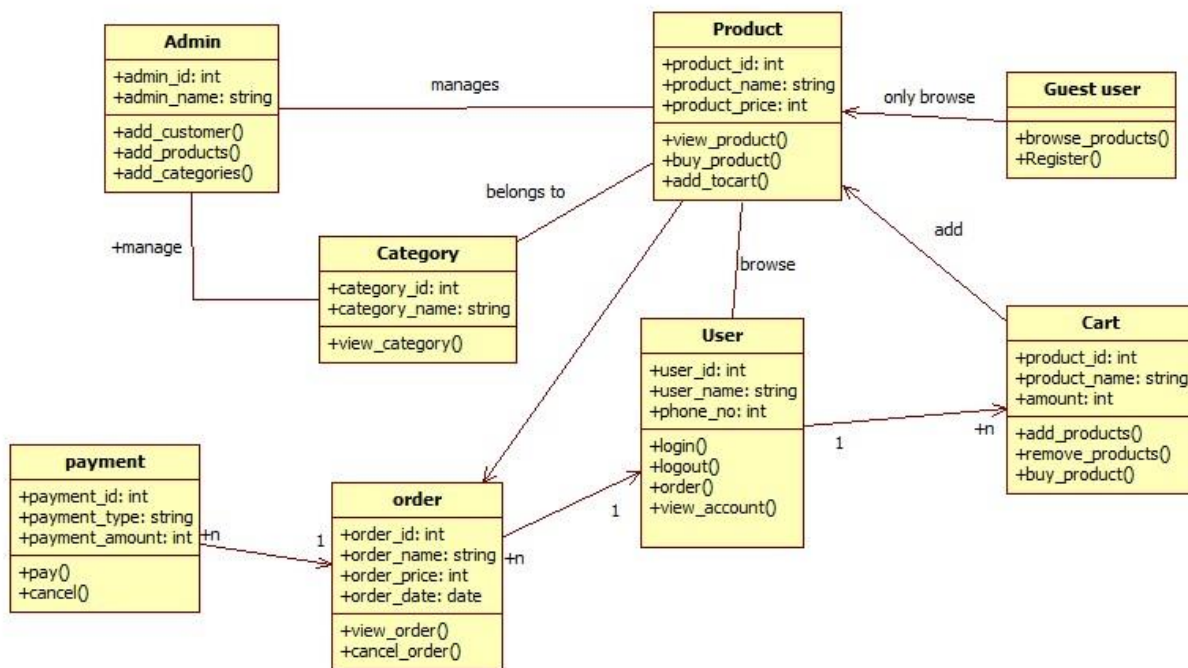| Name	Symbols	Description
Class	Class Attribut Method	Shows architecture and feature, methods and attributes of a class
Association	———————	Shows the relation between class

Table 4.4 Notation of class diagram

Fig 4.6 Class Diagram

4.7 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.

34
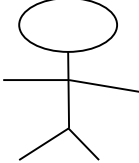
Symbols:

Name	Symbols	Description
Actor		An actor is the person participation in the interaction with the system
Use Case		It represents some action that might be performed

Table 4.5 Notation of Use Case

➢ Use Case :**CUSTOMER LOGINS .**

- **Description :**the customer using the website sign in into his/her respective account.
- **Actors:** Customer.
- **Pre-Condition:** user has already registered .
- **Post-condition:** the user will have access to the account , and can manage their cart, account, and orders ,etc.

➢ Use Case :**CUSTOMER ADDS ITEM TO CART .**

- **Description :**the item that the user likes and want to buy later he can store that item in the cart for the easy access.
- **Actors:** customer.
- **Pre-Condition:** user has already logged inside .
- **Post-condition:** the user can either checkout the products in the cart for delivery or can continue browsing other products.

➢ Use Case :**CUSTOMER ORDERS THE PRODUCT .**

- **Description :**Order the product that they wants to buy.
- **Actors:** customer.
- **Pre-Condition:** The product is available (in stock and is available for delivery in that region/area) .

- **Post-condition:** the user fills all details of delivery and payment(according to the choice selected for the payment for the payment method) and submit it and wait for the delivery accordingly.

➢ Use Case :**CUSTOMER ADDS ITEM TO CART .**

- **Description :**the seller receives the order from the customer.
- **Actors:** seller.
- **Pre-Condition:** user selects and order the products .
- **Post-condition:** The seller deliver approves the order and send the delivery.

➢ Use Case :**CUSTOMER CANCELS THE ORDER .**

- **Description :**the order that was placed is been cancelled.
- **Actors:** seller.
- **Pre-Condition:** The product was ordered .
- **Post-condition:** The delivery of the order should be stopped and if the customer has paid for the order earlier then the money should be given back to him.
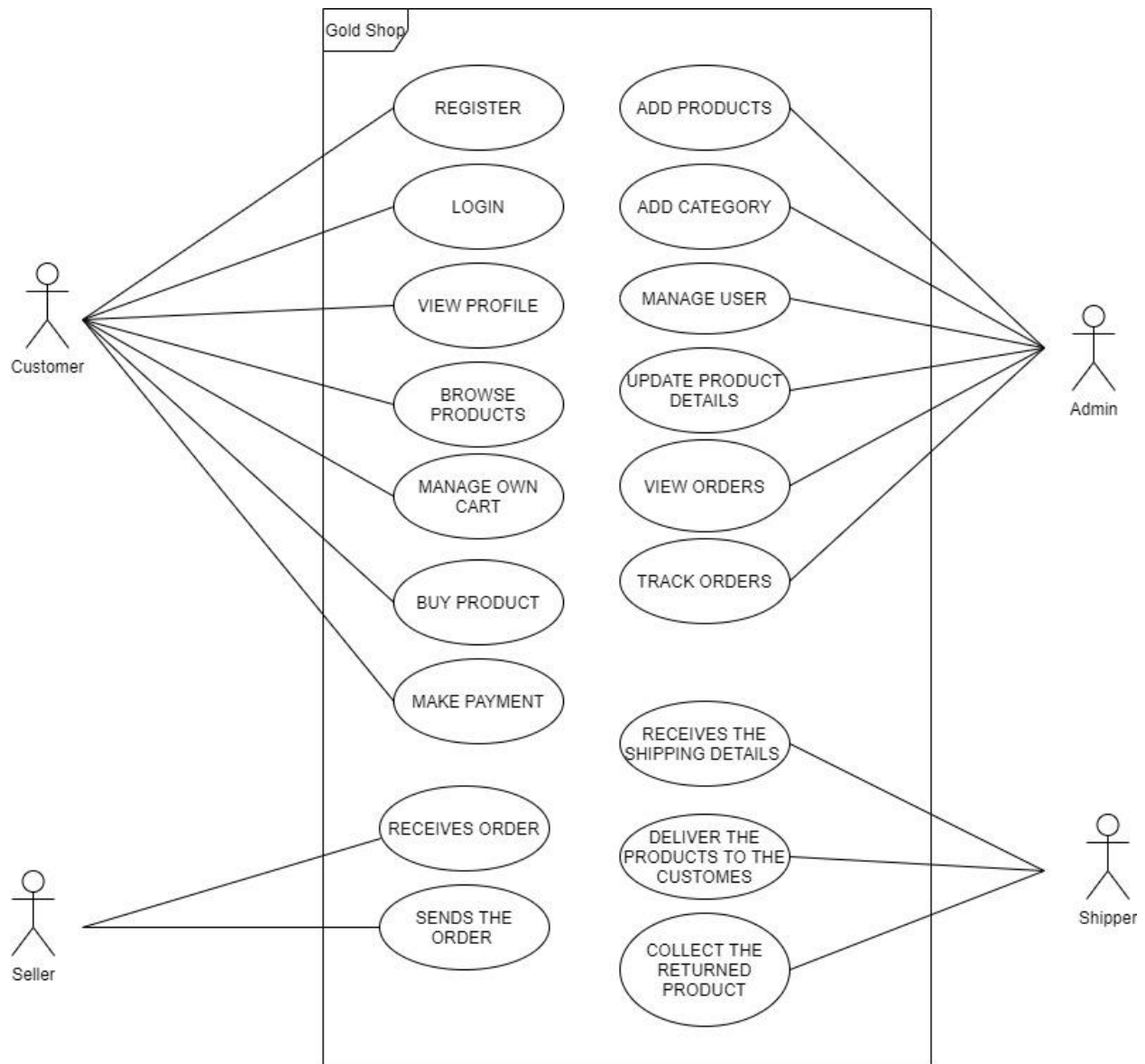
Fig 4.7 use case diagram

4.8 Sequence Diagram :

A sequence diagram is a type of interaction diagram because it describes how—and in what order—a group of objects works together. These diagrams are used by software developers and business professionals to understand requirements for a new system or to document an existing process. Sequence diagrams are sometimes known as event diagrams or event scenarios.
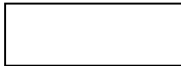
Symbols :

Name	Symbol	Description
Activation Box		The period when an object if performing an action
Object		An object that is created and performs action
Synchronous Message		Does the communication between different objects

Table 4.6 for notation of sequence diagram
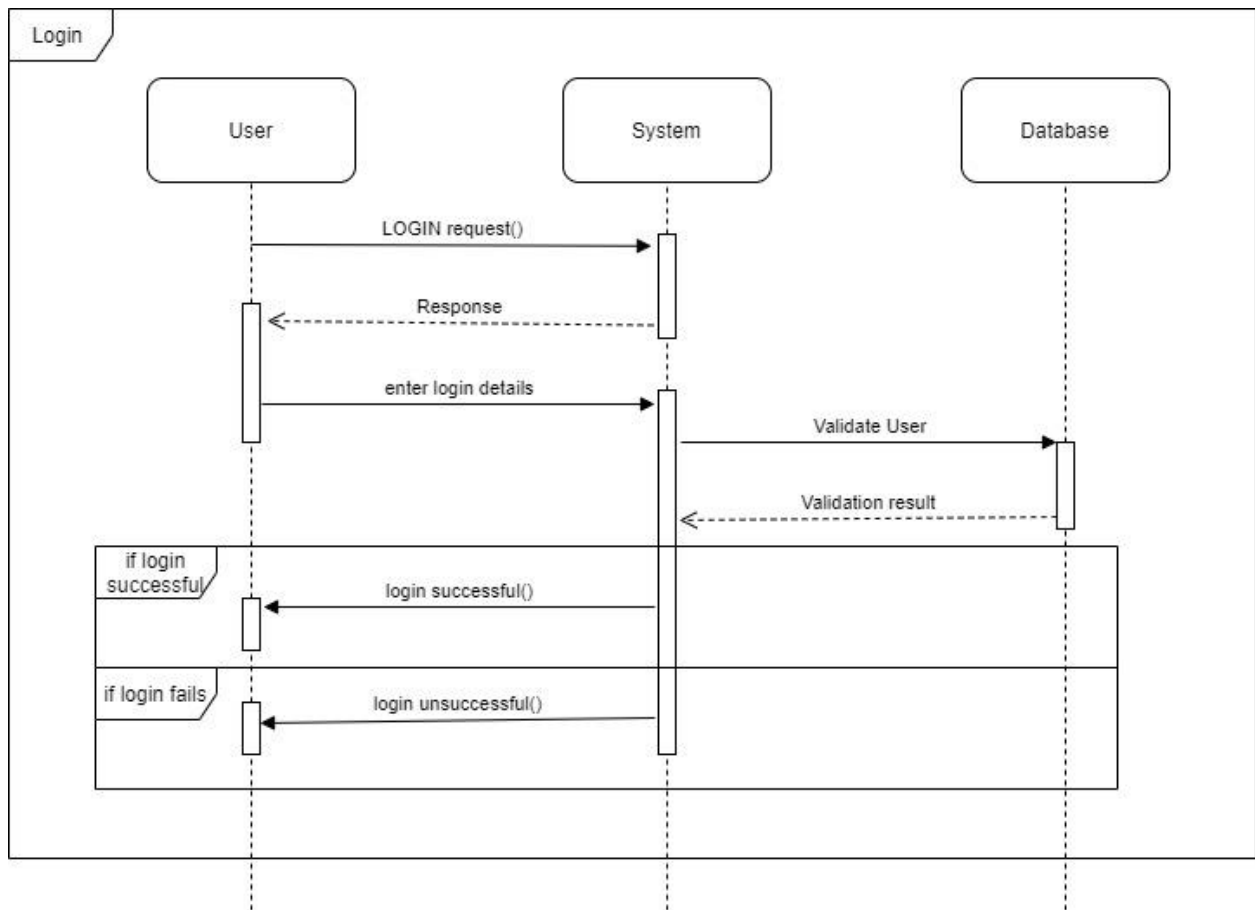
Sequence diagram for user log-in   :

Fig 4.8.1 Sequence diagram for login
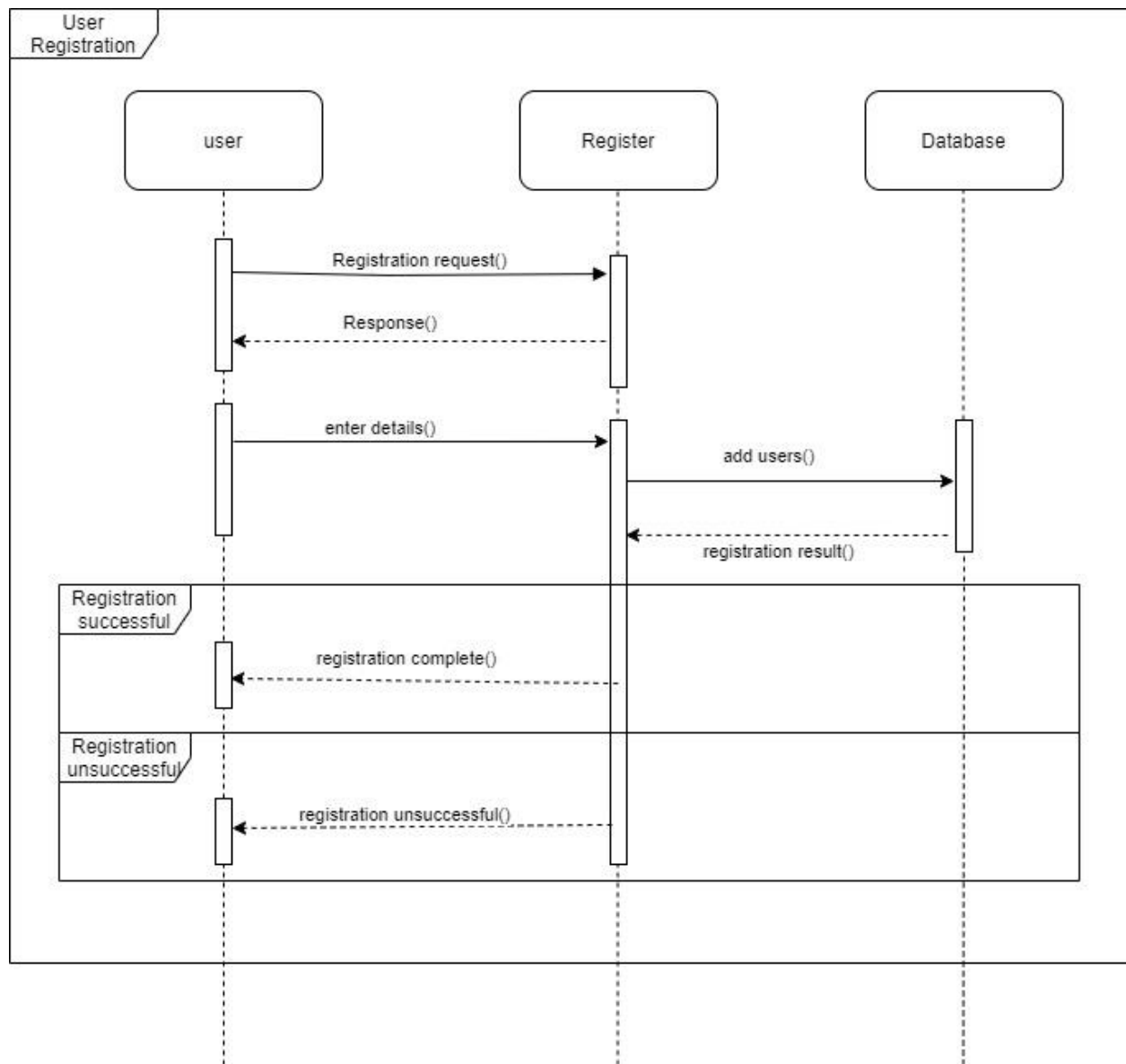
38

Sequence diagram for user Registration   :

Fig 4.8.2 Sequence diagram for user Registration

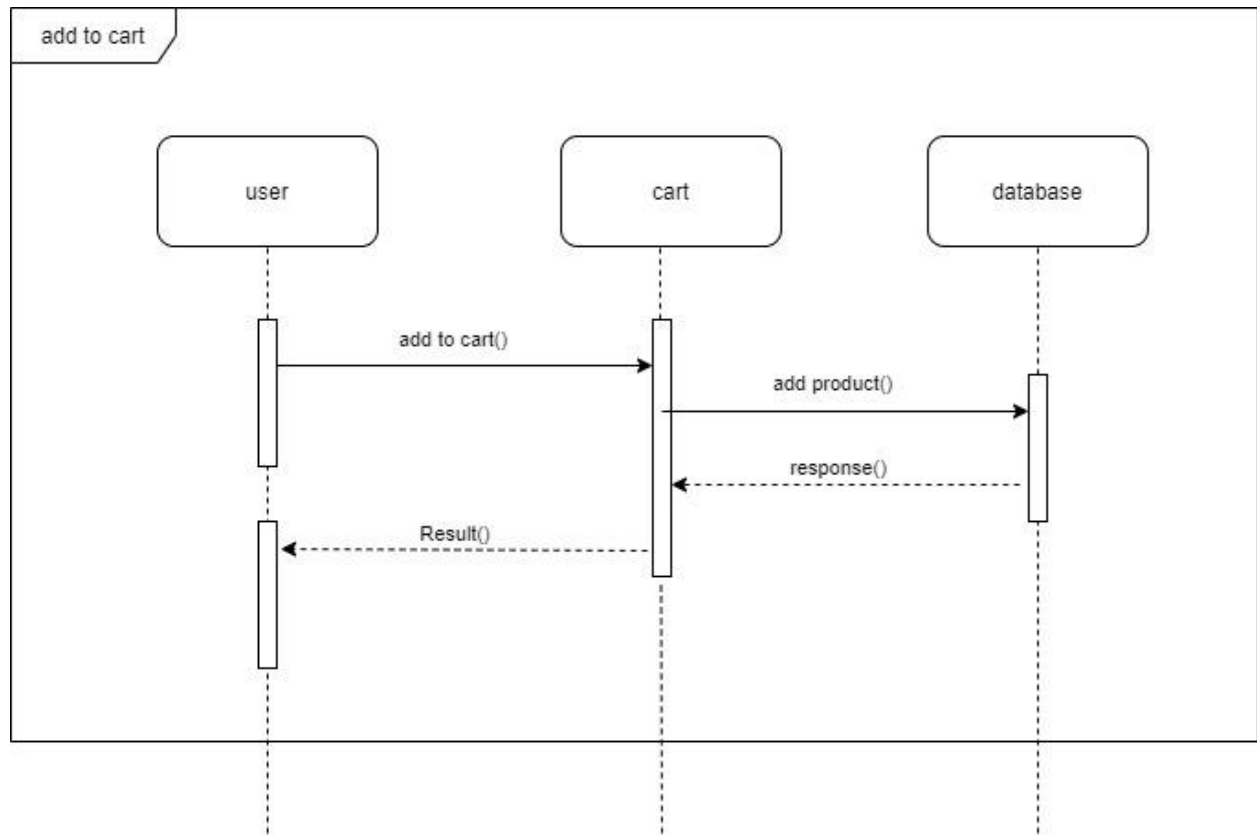Sequence Diagram for adding product to cart   :

Fig 4.8.3 Sequence diagram for add to cart

Sequence Diagram for Viewing Products   :
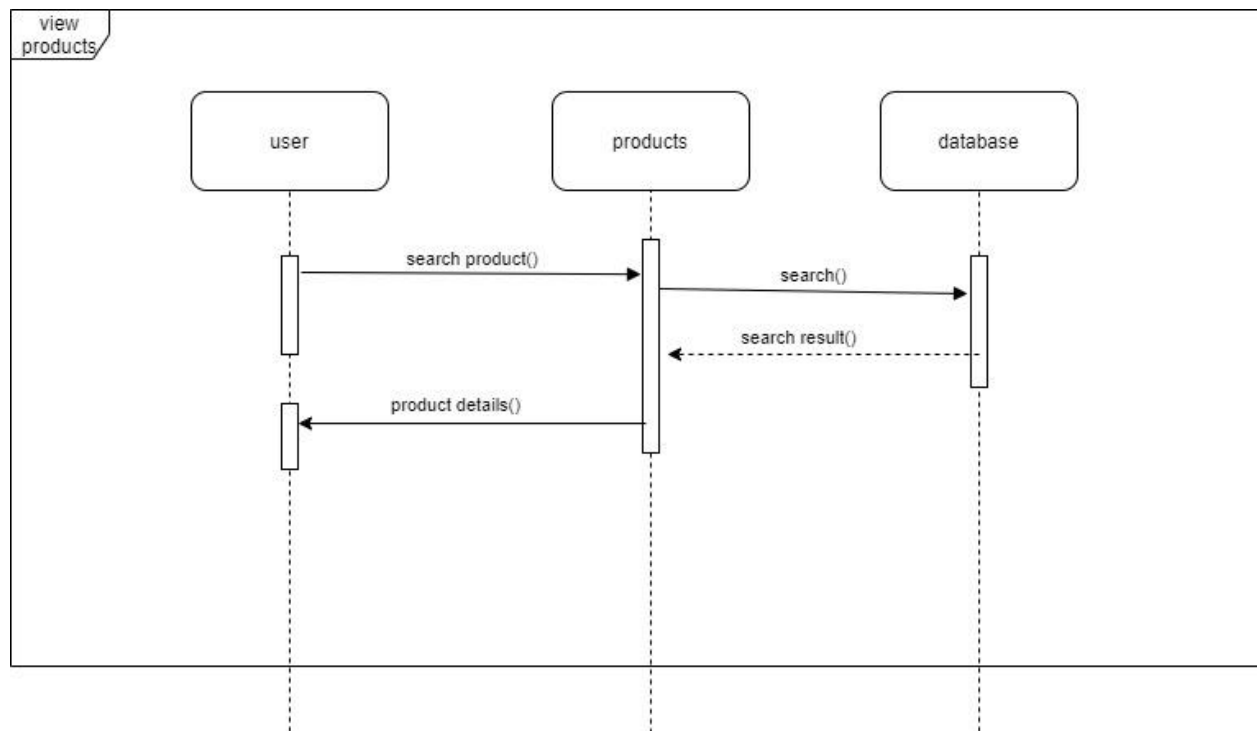

Fig 4.8.4 Sequence diagram for view product

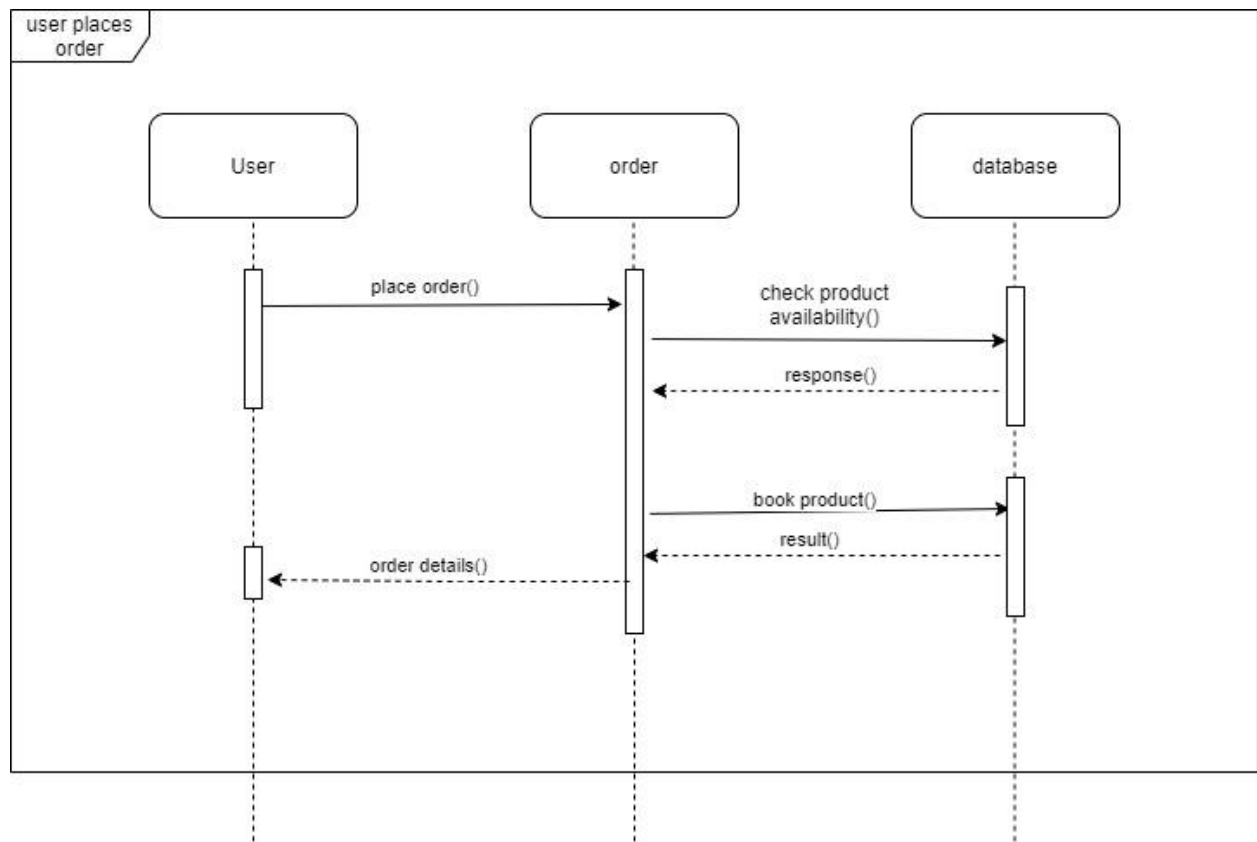Sequence diagram for Placing the order   :

Fig 4.8.5 Sequence diagram for placing order
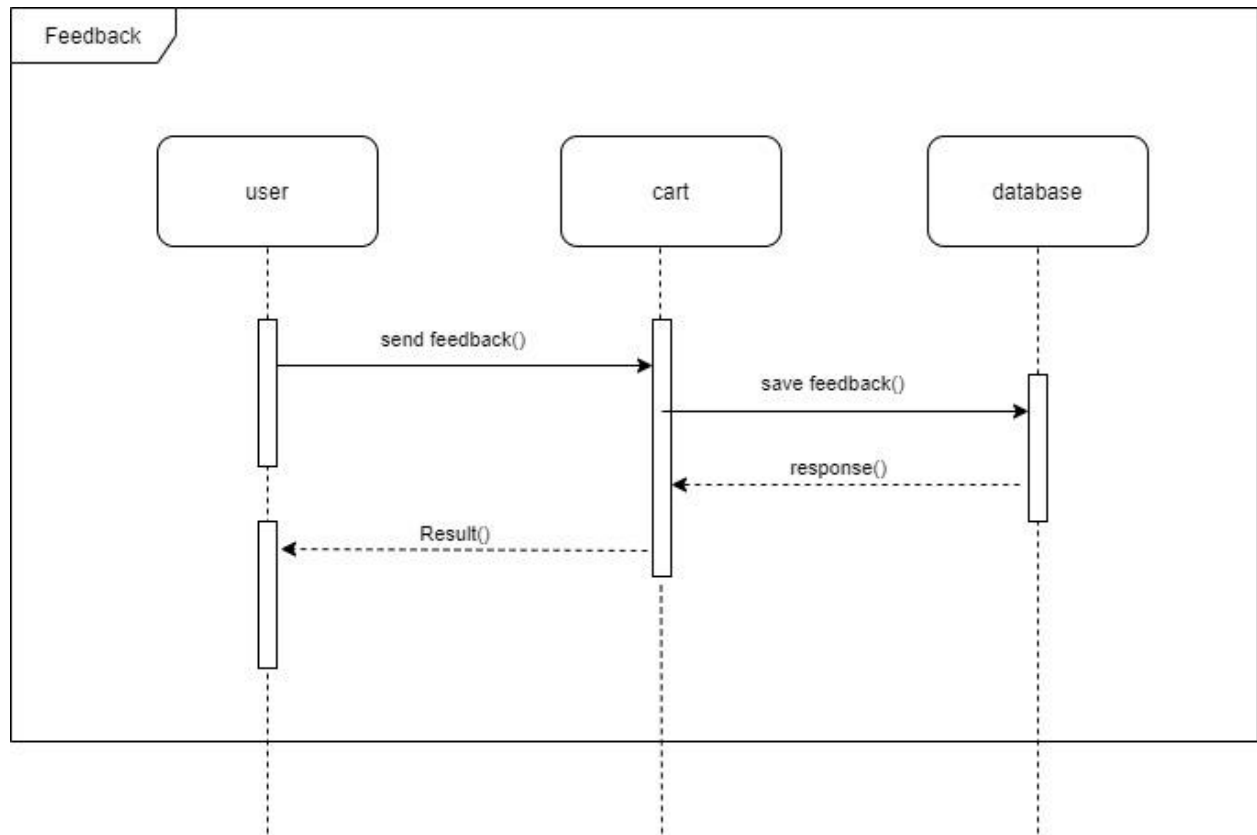
Sequence diagram for user feedback :

Fig 4.8.6 Sequence diagram for user feedback

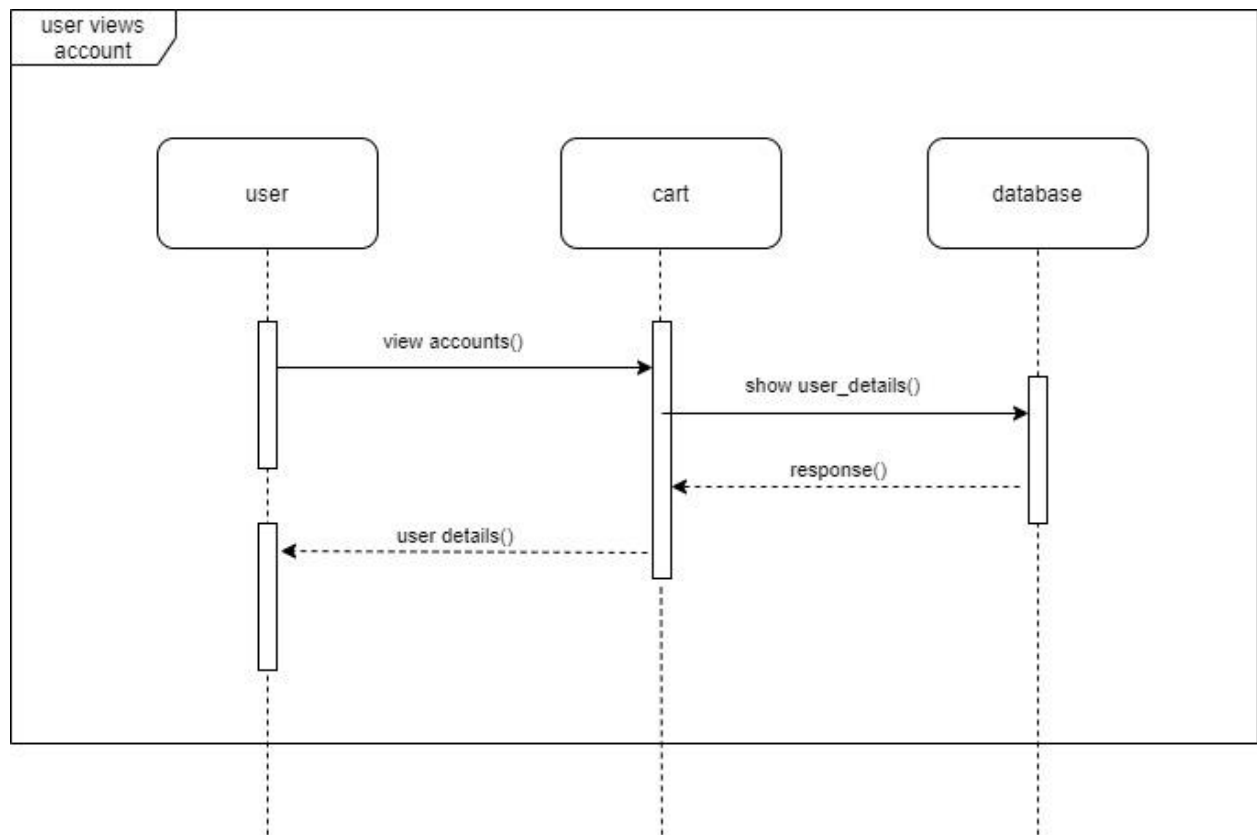Sequence diagram for viewing user account :

Fig 4.8.7 Sequence diagram for viewing user account
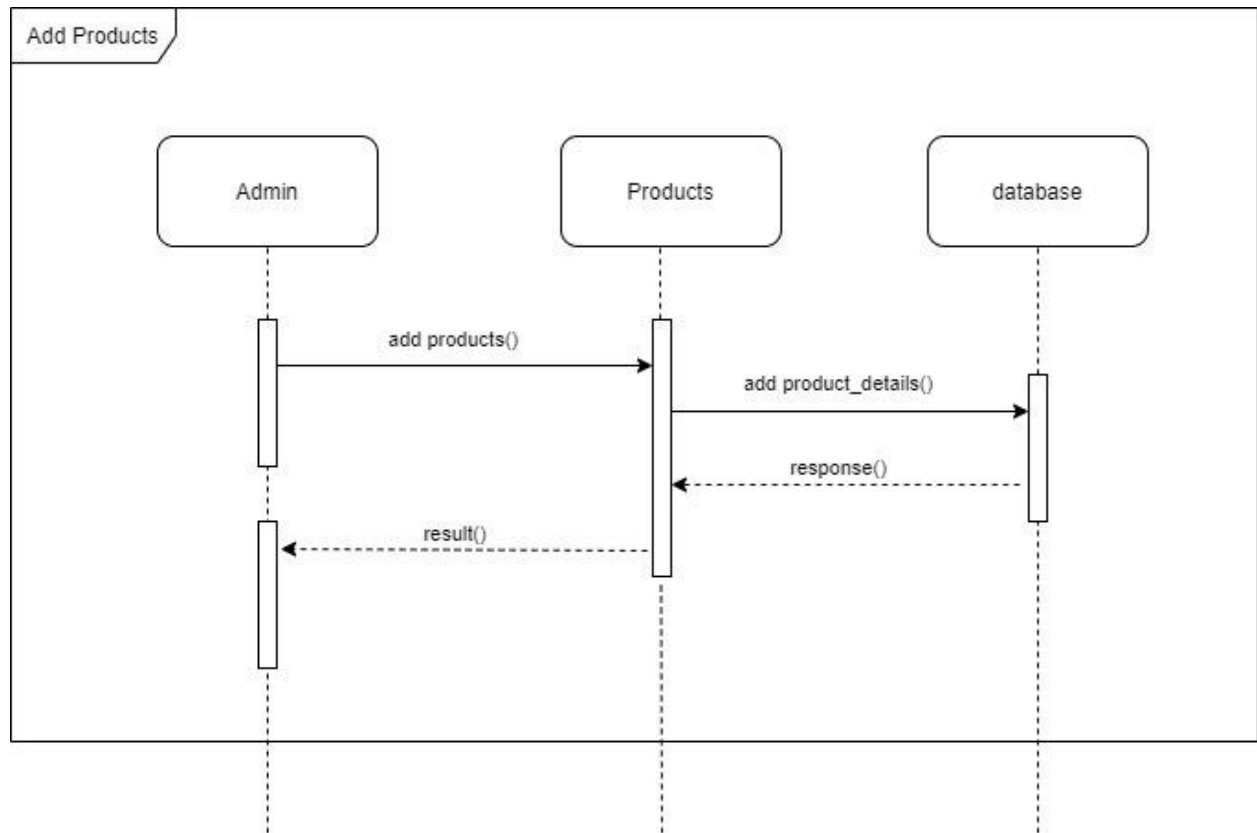
44

Sequence diagram for adding new products :

Fig 4.8.8 Sequence diagram for adding new product
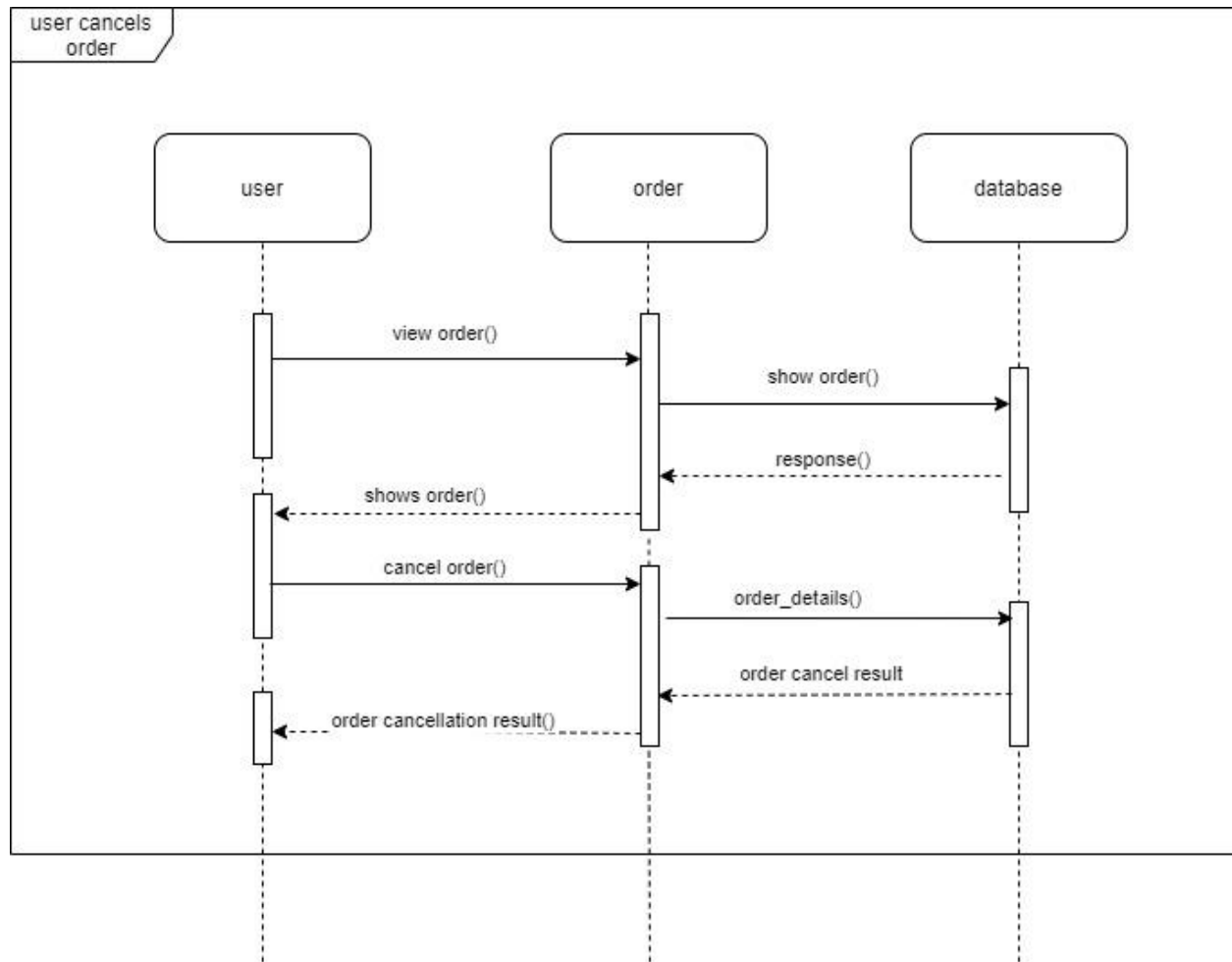
Sequence diagram for Cancelling the order :

Fig 4.8.9 Sequence diagram for cancelling the order

4.9 Activity Diagram :

An activity diagram is a behavioral diagram i.e. it depicts the behavior of a system. An activity diagram portrays the control flow from a start point to a finish point showing the various decision paths that exist while the activity is being executed. We can depict both sequential processing and concurrent processing of activities using an activity diagram. They are used in business and process modelling where their primary use is to depict the dynamic aspects of a system.An activity diagram is very similar to a flowchart

Symbols :
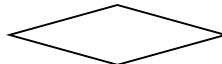
Name	Symbol	Description
Initial State		It is the Starting state of the system design in the activity diagram
Final State		It is the end or the final state of the diagram
Action State		Represents the action to be taken
Decision		Its like the If else loop the so we can choose what decision is made
Transition		Show the control flow of the process

Table 4.7 Notation of Activity Diagram
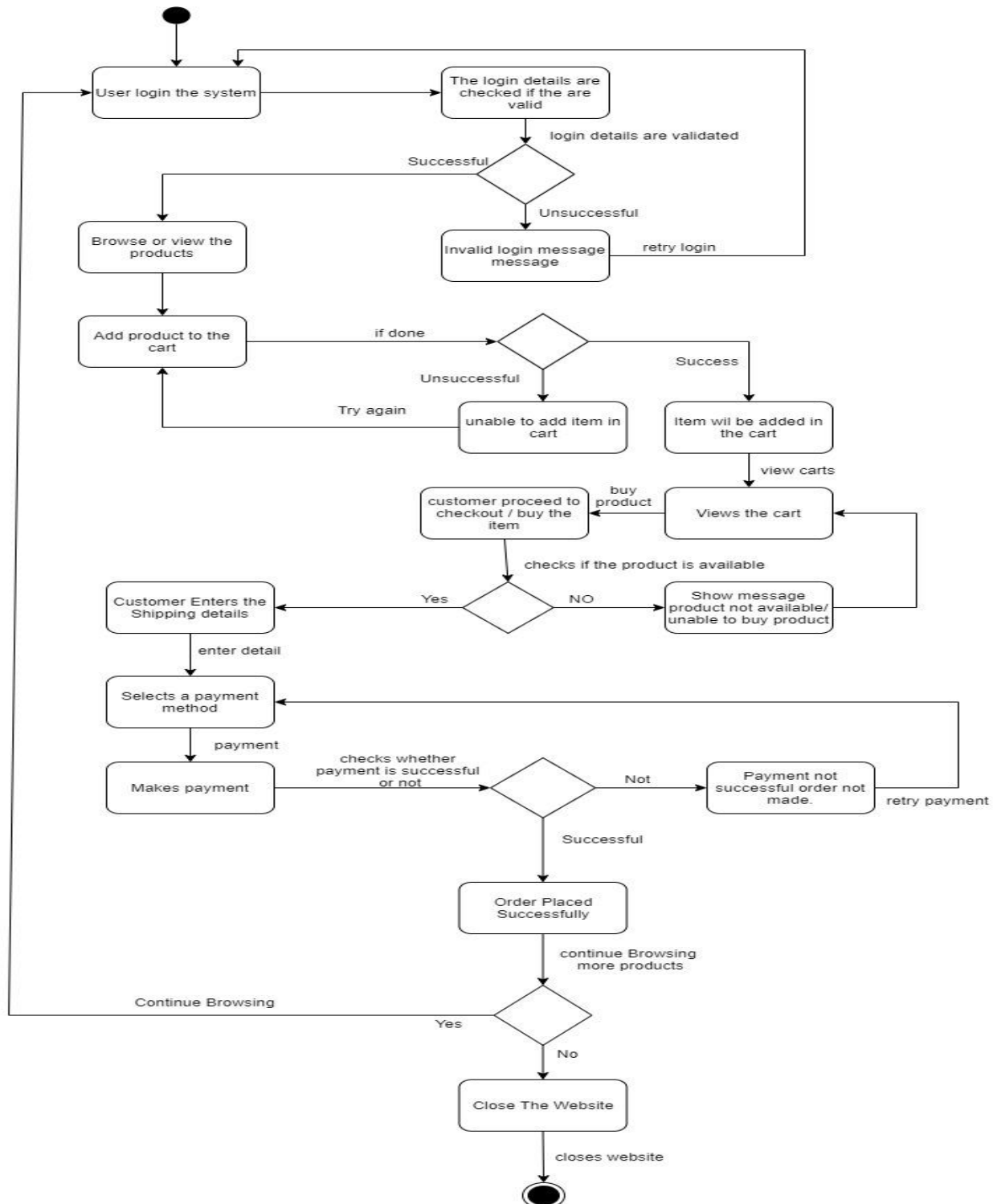
For User :

Fig 4.8.1 Activity diagram for user

48
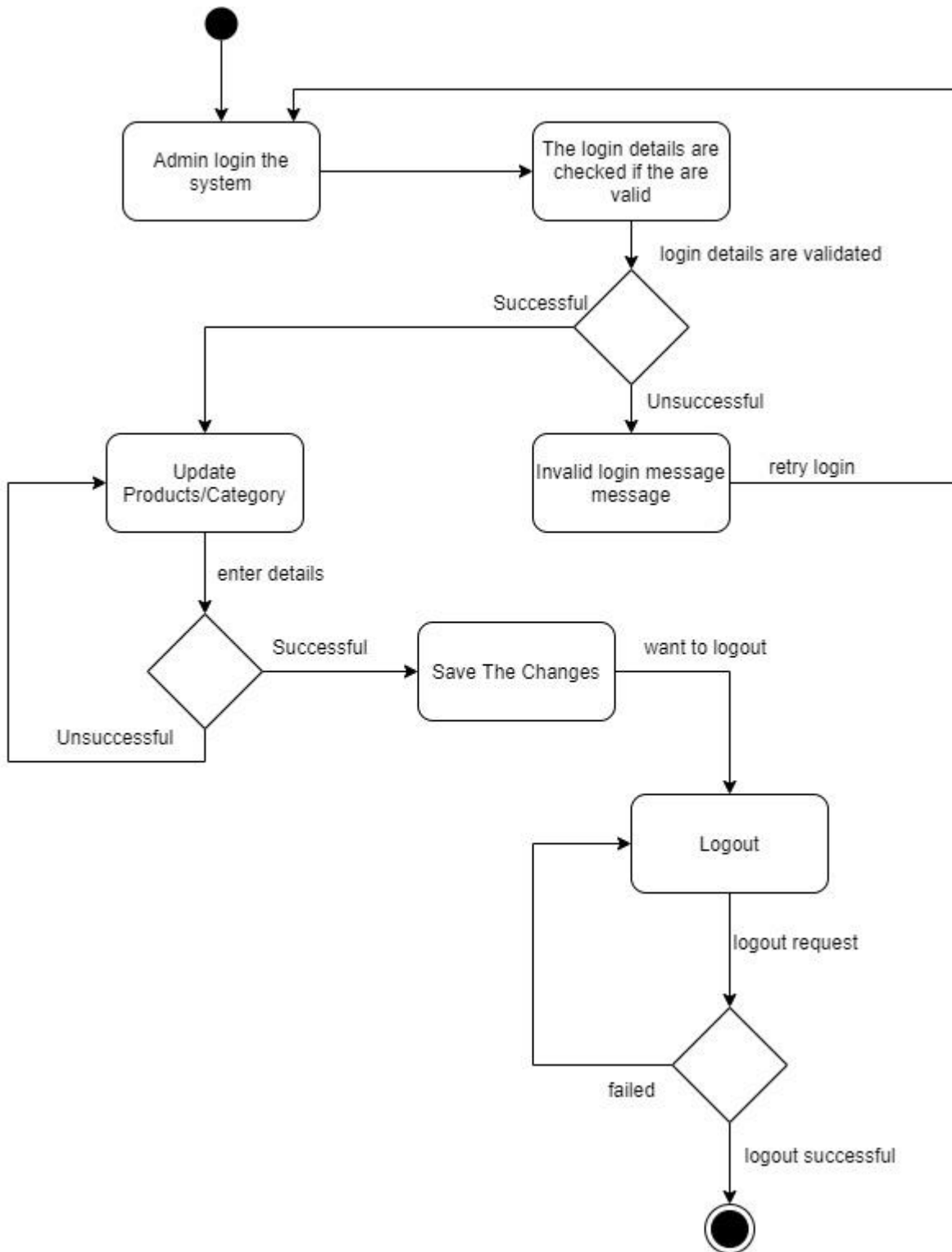
For Admin :

Fig 4.8.2 Activity diagram for Admin

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4.10 State Chart Diagram :

A state diagram is a type of diagram used in computer science and related fields to describe the behavior of systems. State diagrams require that the system described is composed of a finite number of states; sometimes, this is indeed the case, while at other times this is a reasonable abstraction.

Symbol :
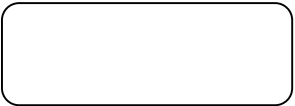
Name	Symbol	Description
Initial State	●	It is the starting state
Transition	→	It shows the flow and what action is been performed
State	(rounded rectangle)	We use a rounded rectangle to represent a state. A state represents the conditions or circumstances of an object of a class at an instant of time.

Table 4.8 Notation of state chart

State chart diagram for user registration :
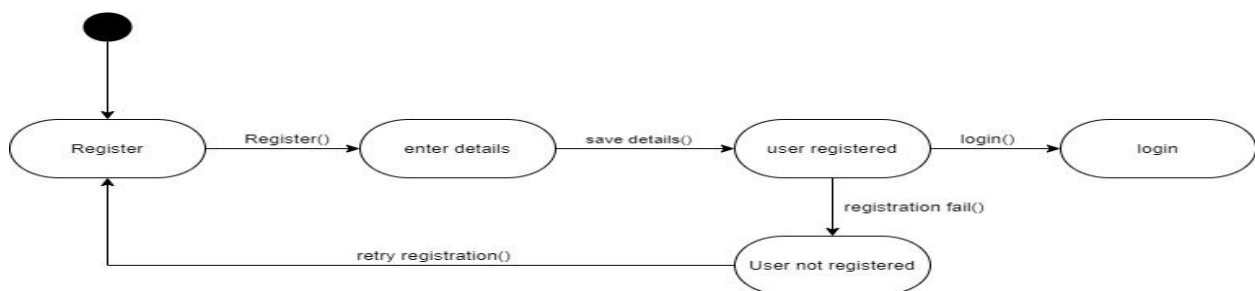
Fig 4.10.1 State chart diagram for user registration

State chart diagram for user login   :
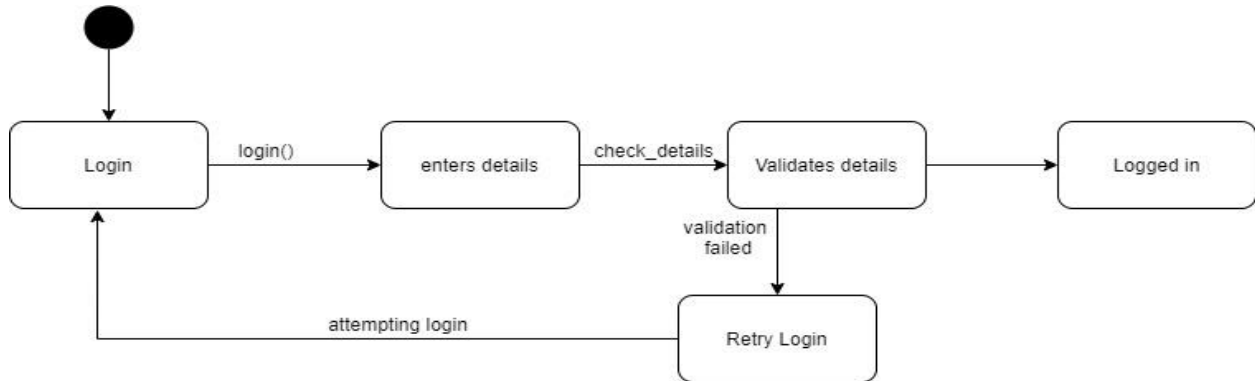
Fig 4.10.2 State chart diagram for user login

State chart diagram for adding products to cart   :
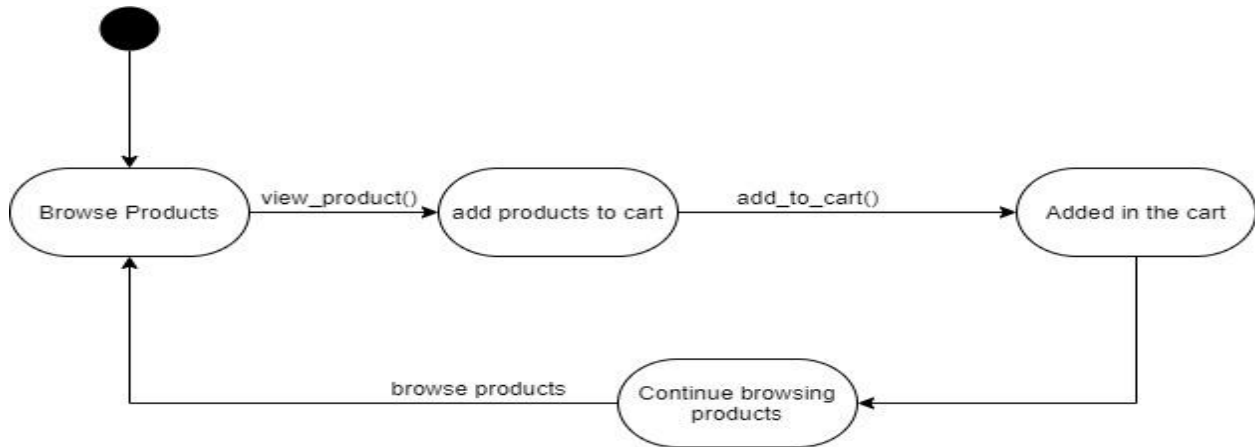
Fig 4.10.3 State chart diagram for adding products to cart

State chart diagram for ordering :
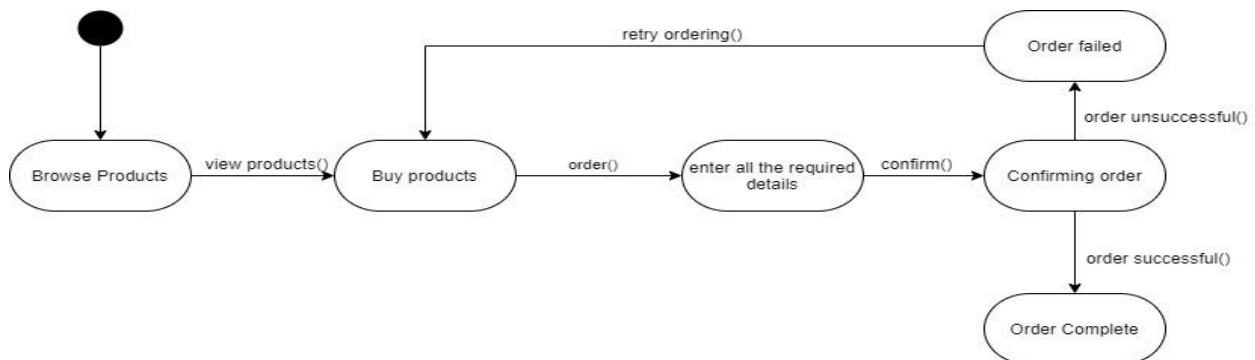
Fig 4.10.4 State chart diagram for ordering

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State chart diagram for when adding new products :
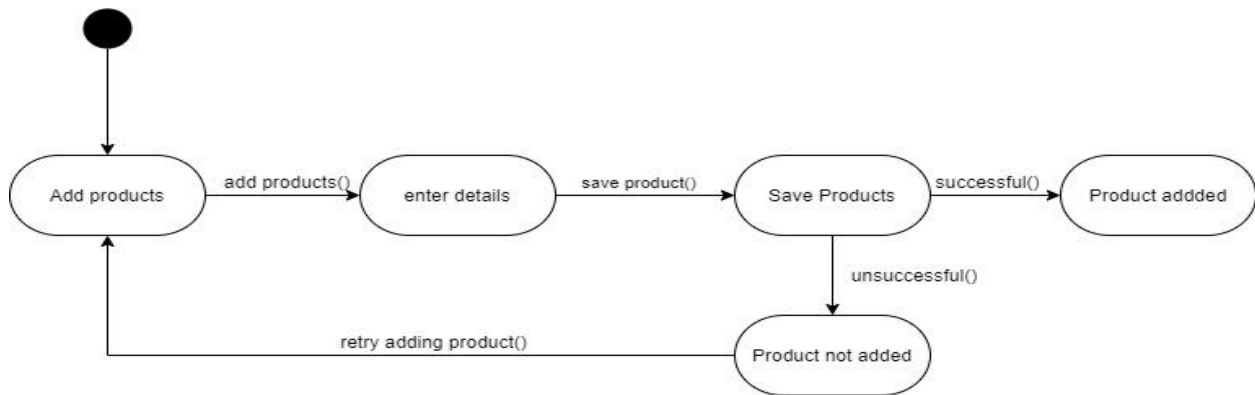
Fig 4.10.5 State chart diagram for when adding new products

State chart diagram for viewing user account :
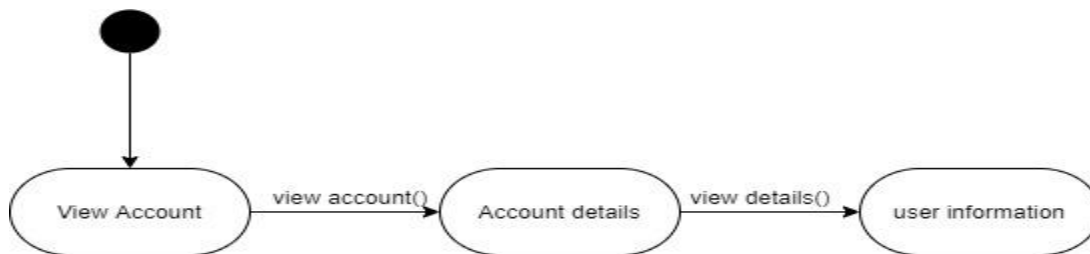
Fig.4.10.6 State chart diagram for viewing user account

State chart diagram for user feedback :
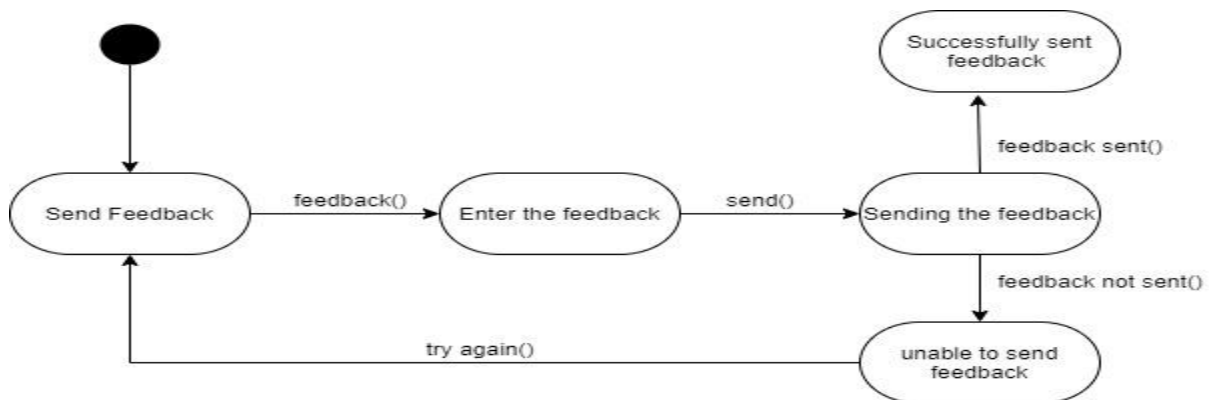
Fig 4.10.7 State chart diagram for user feedback

4.11 User Interface Design :

Fig 4.11.1 registration

Fig 4.11.2 Login Page

After login or as a guest user the following interface will appear :

Fig 4.11.3 User Home page

On clicking the cart the following interface will appear :

Fig 4.11.4 User Cart

On clicking orders :

Fig 4.11.5 view orders

On clicking the user account :

Fig 4.11.6 user account

Fig 4.11.7 Category Wise/Seach View products

Fig 4.11.8 Products View
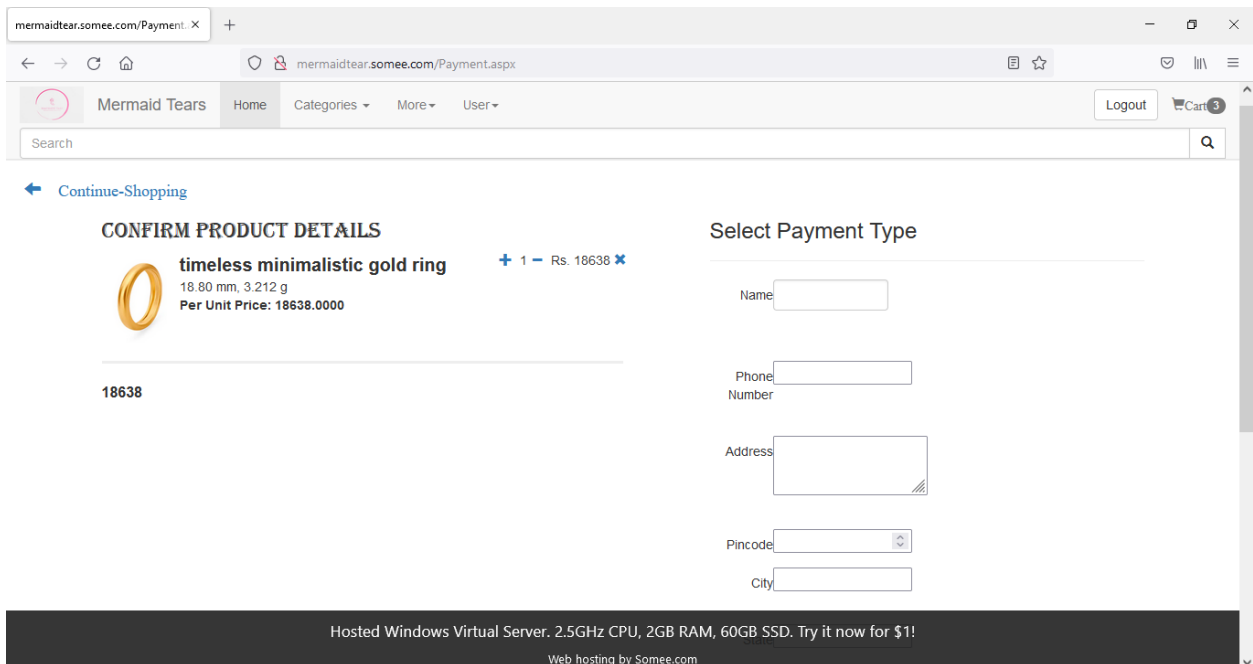
Fig 4.11.9 Placing Order

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Fig 4.11.10 Admin Home Page

Fig 4.11.11 Add products

Fig 4.11.12 Add Brands
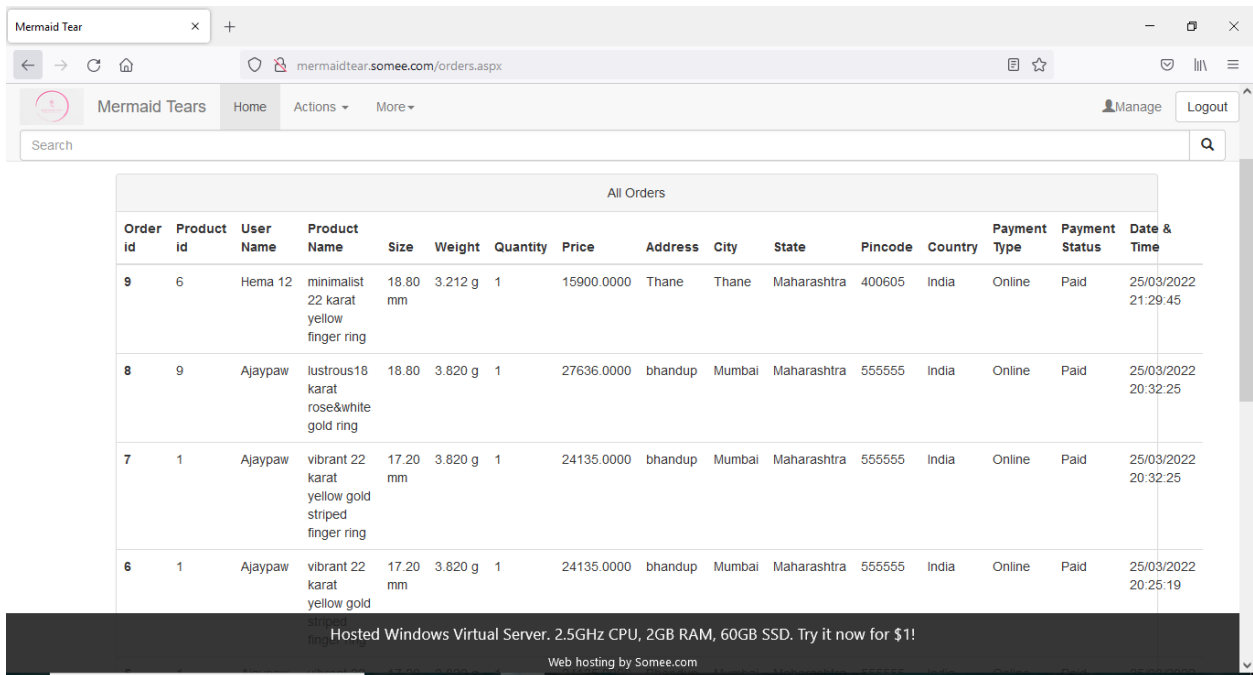
Fig 4.11.13 Admin View Orders

Fig 4.11.14 All Users

4.12. Test Cases :

Registration :

no.	Name	Expected Output	Actual Output	Remark
1	First Name : Kiriya Last Name : Moon Username : Kiriya123 Password : Kiriya@123 confirm Password : Kiriya@123 Gender : Male email : Kiriya033@gmail.com phone no. 9167389699	Registered Successful		
2	email : Ajay12	invalid email		
3	Password : RajDevkar	password must have 8-10 character and should contain uppercase letter,		

		lowercase letter, and a special character		
4	Password : Ajay@1234 Confirm Password : Ajay@2432	Password doesn't match		
5	username : Kunal123	User Already exists		
6	All Null values	Please enter detail		

Table 4.9 Registration Test Cases

Login :

no.	Name	Expected Output	Actual Output	Remark
1	username : kiriya123 password : Kiriya@123	login Successful		
2	username : Ajay123 passwrd : ajay$12	invalid details		
3	username : ABC@12	invalid details		
4	null	please enter the data		

Table 4.10 Login Test Cases

Add Brand :

no.	Name	Expected output	Actual Output	Remark
1	Brand name : Tanishq	Brand Added Successfully		
2	null	brand Name Required		
3	null	brand Name Required		

Table 4.11 Add Brand Test Cases

Add Category :

no.	Name	Expected Output	Actual Output	Remark
1	Category Name : Gold	Category Added Successfully		
2	null	enter details		
3	null	enter details		

Table 4.12 Add Categories Test Cases

Add sub category:

no.	Name	Expected Output	Actual Output	Remark
1	Category Type : gold Subcategory Name : Rings	Subcategory Added Successfully		
2	Category Type : Null Subcategory Name : Coins	Category Type Required		
3	Subcategory Name : null	enter the name		
4	Subcategory Name : null	enter the name		

Table 4.13 Add Sub-Categories Test Cases

Add Gender :

no	Name	Expected Output	Actual Output	Remark
1	Gender	Added		
2	null	enter the gender name		
3	null	enter the gender name		

Table 4.14 Add Gender Test Cases

Add Product Type :

no	Name	Expected Output	Actual Output	Remark
1	Product Type Name : Gold	Product Type Added Successfully		
2	null	enter details		
3	null	enter details		

Table 4.15 Add Product Type Cases

Add Product Sub Type :

no	Name	Expected Output	Actual Output	Remark
1	product Type : Ring Subtype Name : gold Rings	subtype Added Successfully		
2	product Type : Null Subtype Name : Coins	sub Type name Required		
3	Subtype Name : null	enter the name		
4	Subtype Name : null	enter the name		

Table 4.16 Add Product SubType

Add Product Size :

no.	Name	Expected Output	Actual Output	Remark
1	size name : 79.20mm Brand : Tanishq Category : Gold Sub-category : Rings product type : Rings Product subtype : gold ring Gender : Male	Size Added Successfully		
2	Brand not selected	Please select Brand		
3	Size name :	Please enter Size name		
4	Category and Product Type not selected	Sub Category and sub type not visible		

Table 4.17 Add Size

Add Product :

no.	Name	Expected Output	Actual Output	Remark
1	Product Name : Vikrant Gold Name Selling Price : 15000 List Price : 17000 Brand : Tanishq Category : Gold Sub Category : Rings Product Type : Rings Sub Type : Engagement Rings Size : 17.72mm Weight : 20gm Gender : Male Quantity : 20 Description : Rings for Engagement Details : All the details of the ring	Product added successfully		
2	Select Product Type,SubType,Category,Sub category,Gender	Product weight and size visible		
3	category not selected	select category		
4	Product type not selected	select Product type		
5	gender not selected	select gender		
6	product name : NULL	Enter The Product Name		
7	Product Price : NULL	Enter the Product Price		

Table 4.18 Add Products

Search :

no.	Name	Expected Output	Actual Output	Remark
1	Vk	Search results shown		
2	Rings	All Rings are shown		
3	Null	please enter a name		
4	Tanishq	Tanishq products are shown		
5	Male	Male Products are shown		

Table 4.19 Search

Review :

no.	Name	Expected Output	Actual Output	Remark
1	Liked the Product	Review Sent Successfully		
2	Null	Please enter the review		
3	Nice Products	Review Sent Successfully		

Table 4.20 Review

Order Placed :

no.	Name	Expected Output	Actual Output	Remark
1	name : kunal address :Kalwa pincode : 400605 city : thane state : Maharashtra country : India email : kkewat912gmail.com	Order Placed Successfully		

		phone no. : 9167389699 mode of payment : offline			
2	email : kkewat	incorrect email			
3	mode of payment : online	Rediirect to payment gateway			
4	mode of payment : online	Redirect to payment gateway			
5	on cancelling online payment	Redirect to cart			

Table 4.21 Placing Order

Forgot Password :

no.	Name	Expected Output	Actual Output	Remark
1	email : kkewat91@gmail.com	email sent to email address		
2	email : kunal@gmail.com	no account registered with the following email		
3	email : Null	please enter the email		

Table 4.22 Forgot Password

User Account:

no.	Name	Expected Output	Actual Output	Remark
1	New Password : Kunal@123	Password Changed Successfully		
2	New Password : Null	enter password		
3	New Password : Sun	password should contain a uppercase later, a lowercaseletter, a special character, minumum 8 letters and maximum10 letter		
4	Delete Account	Account deleted		

Table 4.23 User Account

Chapter 5 : Implementation and Testing

5.1 Coding Details and Efficiency :

Login Page.aspx(frontend page):

```
<%@    Page    Language="C#"    AutoEventWireup="true"    CodeFile="Login.aspx.cs"
Inherits="Login" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
  <title>Login Page</title>
  <meta charset="utf-8"/>
  <meta http-equiv="X-UA-Compatible" content="IE-edge" />
  <meta name="viewport" content="width=device-width, initial-scale=1"  />
  <link href="css/StyleSheet.css" rel="stylesheet" />
  <link                                                         rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css" />
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script>
</head>
<body       style="text-align:center;background-image:url('Images/logo/logo2.png');background-
repeat:no-repeat;background-attachment:fixed;background-size:cover;">
  <form id="form1" runat="server">
  <div>
  <h1>Login</h1>
  <br/><br />
  USERNAME : <asp:TextBox ID="username" runat="server" ></asp:TextBox><br />
  PASSWORD  :  <asp:TextBox  ID="password"  TextMode="Password"  runat="server"
MaxLength="12" ></asp:TextBox><br /><br />
    <asp:CheckBox ID="Remember_me" runat="server" Text="Remember me" /><br />
    <asp:Button  ID="login"  CssClass="btn  btn-success"  runat="server"  Text="Login"
OnClick="login_Click" /><br/><br />
```

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<asp:HyperLink ID="frgtpassword" runat="server" NavigateUrl="~/Forgot_Password.aspx">Forgot Password</asp:HyperLink>

 Don't have an account Signup first : <asp:HyperLink ID="HyperLink2" NavigateUrl="~/Registration.aspx"

runat="server">Register</asp:HyperLink>

<asp:Label ID="Label1" runat="server" Text=""></asp:Label>

</div>

<%-- Page bottom Conents Starts --%>

<footer class="footer_position">

<div class="container">

<p class="pull-right">Back to top</p>

<p>© Mermaid Tears · Home · About·Contact us·</p>

</div>

</footer>

<%-- Page bottom Contents Ends --%>

</form>

</body></html>

Login.cs (backend code of login page):

```
using System;
using System.Data;
using System.Data.SqlClient;
using System.Configuration;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

public partial class Login : System.Web.UI.Page
{
```

```csharp
public          static          String          Connection          =
ConfigurationManager.ConnectionStrings["Dbconnection"].ConnectionString;
  protected void Page_Load(object sender, EventArgs e)
  {
    if(!IsPostBack)
    {
      if(Request.Cookies["UName"] != null && Request.Cookies["UPassword"] != null)
      {
        username.Text = HttpContext.Current.Request.Cookies["UName"].Value.ToString();
        password.Text                                                            =
HttpContext.Current.Request.Cookies["UPassword"].Value.ToString();
        Remember_me.Checked = true;
      }
    }
  }


  protected void login_Click(object sender, EventArgs e)
  {
    try
    {
      string Username, Password, trimmed;
      Username = username.Text;
      Password = password.Text;
      trimmed = String.Concat(Password.Where(c => !Char.IsWhiteSpace(c)));
      byte[] encData_byte = new byte[trimmed.Length];
      encData_byte = System.Text.Encoding.UTF8.GetBytes(trimmed);
      string ePassword = Convert.ToBase64String(encData_byte);
      SqlConnection con = new SqlConnection(Connection);
      SqlCommand cmd = new SqlCommand(@"SELECT [Username]
  ,[Password]
  ,[User_Type]
```

FROM User_detail WHERE Username='" + Username + "' AND Password='" + ePassword + "'",
con);

```
SqlDataAdapter sda = new SqlDataAdapter(cmd);
DataTable dt = new DataTable();
sda.Fill(dt);
con.Open();
int i = cmd.ExecuteNonQuery();
con.Close();

if (dt.Rows.Count > 0)
{
    if (Remember_me.Checked)
    {
        Response.Cookies["UName"].Value = Username;
        Response.Cookies["UPassword"].Value = Password;


        Response.Cookies["UName"].Expires = DateTime.Now.AddDays(120);
        Response.Cookies["UPassword"].Expires = DateTime.Now.AddDays(120);


    }
    else
    {
        Response.Cookies["UName"].Value = Username;
        Response.Cookies["UPassword"].Value = Password;


        Response.Cookies["UName"].Expires = DateTime.Now.AddDays(-1);
        Response.Cookies["UPassword"].Expires = DateTime.Now.AddDays(-1);
    }
    string Usertype;
    Usertype = dt.Rows[0][2].ToString().Trim();
```

```
        if (Usertype == "User")

        {

            Session["Username"] = Username;

            Response.Redirect("UserHomePage.aspx");

        }

        else

        if (Usertype == "Admin")

        {

            Session["Username"] = Username;

            Response.Redirect("Admin home page.aspx");

        }

        //Session["Username"] = Username;

        //Response.Redirect("UserHomePage.aspx");

    }

    else

    {

        Label1.Text = "Invalid Login Details";

        Label1.ForeColor = System.Drawing.Color.Red;

    }

    }

    catch (Exception)

    {

        Response.Redirect("error.aspx");

    }

  }

}
```

The Login Page checks whether the details provider are correct and then if it is correct then depending on whether login details of customer or admin it Redirects the user to the user home page and admin to the admin home page.

User Home Page :

```aspx
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="UserHomePage.aspx.cs"
Inherits="UserHomePage" EnableEventValidation="false" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title>Home Page</title>
    <meta charset="utf-8" />
    <meta http-equiv="X-UA-Compatible" content="IE-edge" />
    <meta name="viewport" content="width=device-width, initial-scale=1" />
    <link href="css/StyleSheet.css" rel="stylesheet" />
    <link                                                    rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css" />
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
    <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <nav class="navbar navbar-default navbar-fixed-top" role="navigation">
                <div class="container-fluid">
                    <div class="navbar-header">
                        <button type="button" class="navbar-toggle" data-toggle="collapse" data-
target="#myNavbar">
                            <span class="icon-bar"></span>
                            <span class="icon-bar"></span>
                            <span class="icon-bar"></span>
                        </button>
                        <a class="navbar-brand" href="UserHomePage.aspx">
```

```
                <img src="Images/logo/logo2.png" width="70" height="40" style="position:
relative; top: -10px" />
            </a>
            <a class="navbar-brand" href="UserHomePage.aspx">Mermaid Tears</a>
        </div>
        <div class="collapse navbar-collapse" id="myNavbar">
          <ul class="nav navbar-nav">
            <li class="active"><a href="UserHomePage.aspx">Home</a></li>


            <li class="dropdown">
              <a class="dropdown-toggle" data-toggle="dropdown" href="#">Categories
<span class="caret"></span></a>
                <ul class="dropdown-menu">
                  <li class="dropdown-header">Gender</li>
                  <li role="separator" class="divider"></li>
                  <li><a href="ViewCats.aspx?searchCat=Men">Men</a></li>
                  <li><a href="ViewCats.aspx?searchCat=Women">Women</a></li>
                  <li><a href="ViewCats.aspx?searchCat=Children">Kids</a></li>
                  <li><a href="ViewCats.aspx?searchCat=Unisex">Unisex</a></li>
                  <li role="separator" class="divider"></li>
                  <li><a href="ViewCats.aspx?searchCat=Earrings">Earings</a></li>
                  <li><a href="ViewCats.aspx?searchCat=Pendants">Pendants</a></li>
                  <li><a        href="ViewCats.aspx?searchCat=Finger        Rings">Finger
Rings</a></li>
                </ul>
            </li>


            <li class="dropdown">
              <a class="dropdown-toggle" data-toggle="dropdown" href="#">More<span
class="caret"></span></a>
                <ul class="dropdown-menu">
```

```html
        <li><a href="AboutUs.aspx">About US</a></li>
        <li><a href="ContactUs.aspx">Contact us</a></li>
        <li><a href="Guide.aspx">Guide book</a></li>
      </ul>
    </li>
    <li class="dropdown">
      <a class="dropdown-toggle" data-toggle="dropdown" href="#">User<span class="caret"></span></a>
        <ul class="dropdown-menu">
          <li><a href="User_Account.aspx">Account</a></li>
          <li><a href="User_Order.aspx">Orders</a></li>
        </ul>
    </li>
    <li><a href="Products.aspx">All Products</a></li>
  </ul>
  <ul class="nav navbar-nav navbar-right">
    <li>
      <asp:Button ID="loginbtn" CssClass="btn btn-default navbar-btn glyphicon-log-in" runat="server" Text="Login" OnClick="loginbtn_Click" />
      <asp:Button ID="logoutbtn" CssClass="btn btn-default navbar-btn glyphicon-log-out" runat="server" Text="Logout" OnClick="logoutbtn_Click" />

    </li>
    <li>
      <asp:LinkButton runat="server" ID="Cart" type="button" OnClick="Cart_Click1"><span aria-hidden="true" class="glyphicon glyphicon-shopping-cart">Cart</span><span id="num" class="badge" runat="server">6</span></asp:LinkButton>
    </li>
  </ul>
</div>
<form class="navbar-form navbar-left" action="/action_page.php">
```

```
<div class="input-group">
    <asp:TextBox        ID="search"        runat="server"        class="form-control"
placeholder="Search" ></asp:TextBox>
                <div class="input-group-btn">
                    <asp:LinkButton  ID="searchbtn"  runat="server"  class="btn  btn-default"
OnClick="searchbtn_Click" ><i class="glyphicon glyphicon-search"></i></asp:LinkButton>
                        <i class="glyphicon glyphicon-search"></i>
                    </button>
                </div>
            </div>
        </form>
    </div>
</nav>
</div>
<br />
<br />
<br />
<br />
<hr />

<asp:Label ID="LblSuccess" runat="server" CssClass="text-success"></asp:Label>

<%-- Image Slider Start --%>
<br />  <br /><br /><br />
<hr />
<div class="container">
    <div id="myCarousel" class="carousel slide" data-ride="carousel">
        <!-- Indicators -->
        <ol class="carousel-indicators">
            <li data-target="#myCarousel" data-slide-to="0" class="active"></li>
            <li data-target="#myCarousel" data-slide-to="1"></li>
```

```
            <li data-target="#myCarousel" data-slide-to="2"></li>
        </ol>


        <!-- Wrapper for slides -->
        <div class="carousel-inner">
            <asp:Repeater ID="Imagerptr" runat="server">
             <ItemTemplate>
               <div class="item <%# GetActiveImage(Container.ItemIndex) %>">
                  <a    href="ViewCats.aspx?searchCat=<%#   Eval("Heading_Name")   %>">
<asp:Image ID="Image1" ImageUrl='<%# Eval("ImageUrl") %>' runat="server" style="height:
386px; width: 100%;" Title="image taken from Google.com" /></a>
                    <%--<img                    src="Images/Product_Images/<%#Eval("Product_id")
%>/<%#Eval("Name") %><%#Eval("Extension") %>" alt="<%#Eval("Name") %>" title="image
taken from <%#Eval("Brand_name") %>.com" onerror="this.src='Images/no_img.png'" />--%>
                    <div class="carousel-caption">


                    </div>
                </div>
            </ItemTemplate>
           </asp:Repeater>
        </div>

        <!-- Left and right controls -->
        <a class="left carousel-control" href="#myCarousel" data-slide="prev">
            <span class="glyphicon glyphicon-chevron-left"></span>
            <span class="sr-only">Previous</span>
        </a>
        <a class="right carousel-control" href="#myCarousel" data-slide="next">
            <span class="glyphicon glyphicon-chevron-right"></span>
            <span class="sr-only">Next</span>
        </a>
```

```
            </div>
        </div>
        <%-- Image Slider End --%>


        <hr />
        <%-- Page Contents Starting --%>
        <div class="container-fluid">
            <%--<h1>Hello World!</h1>--%>
            <div class="row">
                <div class="col-xs-6 col-sm-3" style="background-color: lavender; text-align: center">
                    <a href="ViewCats.aspx?searchCat=Rings">
                        <img class="img-circle" src="Images/dod img/Rings_dod.jpg" alt="Rings" height="150" width="150" />
                        <h2>Rings</h2>
                    </a>
                </div>
                <div class="col-xs-6 col-sm-3" style="background-color: lavenderblush; text-align: center">
                    <a href="ViewCats.aspx?searchCat=Floral Necklaces">
                        <img class="img-circle" src="Images/dod img/Neckalce_floral.JPG" alt="Floral Design Necklaces" height="150" width="150" />
                        <h2>Floral Necklaces</h2>
                    </a>
                </div>
                <!-- Add clearfix for only the required viewport -->
                <div class="clearfix visible-xs"></div>
                <div class="col-xs-6 col-sm-3" style="background-color: lightcyan; text-align: center">
                    <a href="ViewCats.aspx?searchCat=Bangles">
                        <img class="img-circle" src="Images/dod img/Bangles.jpg" alt="Bangles" height="150" width="150" />
                        <h2>Bangles </h2>
```

```
            </a>
         </div>
         <div class="col-xs-6 col-sm-3" style="background-color: lightgray; text-align: center">
            <a href="ViewCats.aspx?searchCat=Coin">
               <img class="img-circle" src="Images/dod img/Gold coin.jpg" alt="Gold Coins"
height="150" width="150" />
               <h2>Gold & Silver Coins</h2>
            </a>
         </div>
      </div>
   </div>
   <hr />

   <%--Middle Page Contents To show Products Starts Here--%>

   <div class="panel panel-primary">
      <div class="panel-heading">
         Deals Of The Day
      </div>
      <div class="row" style="padding-top: 50px">
         <asp:Repeater ID="rptrProducts" runat="server">
            <ItemTemplate>
               <div class="col-sm-3 col-md-3">
                  <a      href="View_Product.aspx?Product_id=<%#Eval("Product_id")      %>"
style="text-decoration: none;">
                     <div class="thumbnail">
                        <img                    src="Images/Product_Images/<%#Eval("Product_id")
%>/<%#Eval("ImageName") %><%#Eval("Extension") %>" alt="<%#Eval("ImageName") %>"
title="image taken from <%#Eval("Brand_Name") %>.com" style="height: 300px; width: 100%;"
/>
                        <div class="caption">
```

```
                    <div class="probrand"><%#Eval("Brand_Name") %></div>

                    <div class="proName"><%#Eval("Product_Name") %></div>
                    <div class="proPrice">
                        <span                                    class="pro_OriginalPrice">Rs.
<%#Eval("Product_ListPrice","{0:0.00}")                              %></span>
Rs.<%#Eval("Product_SellingPrice","{0:0.00}") %>
                        <span
class="proPriceDiscount">(Rs.<%#Eval("DiscountAmount","{0:0.00}") %> off)</span>
                    </div>
                </div>
            </div>
        </div>
    </ItemTemplate>
   </asp:Repeater>
 </div>
</div>


<%--Middle Page Contents To show Products Starts Here--%>
</form>
<%-- Page bottom Contents Starts --%>
<footer>
    <div class="container">
        <p class="pull-right"><a href="#">Back to top</a></p>
        <p>&copy; Mermaid Tears &middot; <a href="Default.aspx">Home </a>&middot; <a
href="AboutUs.aspx">About</a><a href="ContactUs.aspx">Contact us&middot;</a></p>
    </div>
</footer>
<%-- Page bottom Contents Ends --%>
</body>
</html>
```

5.2 Testing Approach :

Software testing is a approach of testing the functionality of our software application to find out the software bugs and errors if any. It is to done to check whether our software meets the our required criteria and is there any defect presents in it so that we can work on it.

There are three types of software testing approaches :

1. WhiteBox Testing:

    It is also called as glass box testing, clear box, structural testing, It is based on applications internal code structure. In this the internal perspective of the system as well as the programming skills is used to design the test cases. This is done in the unit level.

2. Black Box Testing:

    It is also called as behavioral/specification based input/output testing. In this the testing is done without looking at the code or without knowing the code.

3. Grey Box Testing:

    It is a combination of white box and Black box testing. The tester does not know the code but has the design of the modules and diagram which helps in understanding the working of the code.

5.2.1 Registration:

no.	Name	Expected Output	Actual Output	Remark
1	First Name : Kiriya Last Name : Moon Username : Kiriya123 Password : Kiriya@123 confirm Password : Kiriya@123 Gender : Male email : Kiriya033@gmail.com phone no. 9167389699	Registered Successful	Registration Successful	pass
2	email : Ajay12	invalid email	invalid email	pass
3	Password : RajDevkar	password must have 8-10 character and should contain uppercase letter, lowercase letter, and a special character	password must have 8-10 character and should contain uppercase letter,lowercase letter, and a special character	pass
4	Password : Ajay@1234 Confirm Password : Ajay@2432	Password doesn't match	Password Doesn't match	Pass
5	username : Kunal123	User Already exists	User Already exists	Pass
6	All Null values	Please enter detail	Enter the details	pass

5.2.2 Login :

no.	Name	Expected Output	Actual Output	Remark
1	username : kiriya123 password : Kiriya@123	login Successful	Login Successful	Pass
2	username : Ajay123 passwrd : ajay$12	invalid details	invalid details	pass
3	username : ABC@12	invalid details	invalid details	pass
4	null	please enter the data	details required	Pass

5.2.3 Add Brand :

no.	Name	Expected output	Actual Output	Remark
1	Brand name : Tanishq	Brand Added Successfully	Brand Added Successfully	Pass
2	null	brand Name Required	Brand Added Successfully	Fail. Added a validation for empty string.
3	null	brand Name Required	Brand Name Required	Pass

5.2.4 Add Category :

no.	Name	Expected Output	Actual Output	Remark
1	Category Name : Gold	Category Added Successfully	Category Added Successfully	Pass
2	null	enter details	Category Added Successfully	Fail. Added a Validation for empty string.
3	null	enter details	enter details	Pass

5.2.5 Add SubCategory :

no.	Name	Expected Output	Actual Output	Remark
1	Category Type : gold Subcategory Name : Rings	Subcategory Added Successfully	SubCategory Added Successfully	Pass
2	Category Type : Null Subcategory Name : Coins	Category Type Required	Select Category Type	Pass
3	Subcategory Name : null	enter the name	SubCategory Added Successfully	Fail. Added a validation for empty string.
4	Subcategory Name : null	enter the name	enter the name	pass

5.2.6 Add Product Type :

no	Name	Expected Output	Actual Output	Remark
1	Product Type Name : Gold	Product Type Added Successfully	Product Type Added Successfully	Pass
2	null	enter details	Product Type Added Successfully	Fail Added a empty string Validation
3	null	enter details	enter details	Pass

5.2.7 Add Gender :

no	Name	Expected Output	Actual Output	Remark
1	Male	Added	Added successfully	pass
2	null	enter the gender name	Added successfully	Fail Added a empty string validaton
3	null	enter the gender name	enter the gender name	pass

5.2.8 Add Product SubType :

no	Name	Expected Output	Actual Output	Remark
1	product Type : Ring Subtype Name : gold Rings	subtype Added Successfully	Subtype Added Successfully	Pass
2	product Type : Null Subtype Name : Coins	sub Type name Required	Select product Type	Pass
3	Subtype Name : null	enter the name	Subtype Added Successfully	Fail Added an empty string validation
4	Subtype Name : null	enter the name	enter the name	pass

5.2.9 Add Size :

no.	Name	Expected Output	Actual Output	Remark
1	size name : 79.20mm Brand : Tanishq Category : Gold Sub-category : Rings product type : Rings Product subtype : gold ring Gender : Male	Size Added Successfully	Size Added successfully	Pass
2	Brand not selected	Please select Brand	Please Select brand	Pass
3	Size name :	Please enter Size name	Size name not entered	Pass
4	Category and Product Type not selected	Sub Category and sub type not visible	"select category to view Sub category;	Pass

5.2.10 Add Products :

no.	Name	Expected Output	Actual Output	Remark
1	Product Name : Vikrant Gold Name Selling Price : 15000 List Price : 17000 Brand : Tanishq Category : Gold Sub Category : Rings Product Type : Rings Sub Type : Engagement Rings Size : 17.72mm Weight : 20gm Gender : Male Quantity : 20 Description : Rings for Engagement Details : All the details of the ring	Product added successfully	product Added Successfully	Pass
2	Select Product Type, Sub Type, Category, Sub category, Gender	Product weight and size visible	Product weight and size not showing	Fail. Binded Size and weight with onselected index changed event

3	category not selected	select category	Select the category	Pass
4	Product type not selected	select Product type	Select the type	pass
5	gender not selected	select gender	Select the Gender	Pass
6	product name : NULL	Enter The Product Name	Enter the Product name	Pass
7	Product Price : NULL	Enter the Product Price	Enter the Product Price	Pass

5.2.11 Search Products :

no.	Name	Expected Output	Actual Output	Remark
1	Vk	Search results shown	products visible	Pass
2	Rings	All Rings are shown	all rings are shown	Pass
3	Null	please enter a name	Enter the name	Pass
4	Tanish q	Tanishq products are shown	tanishq products are shown	Pass
5	Male	Male Products are shown	Male Products are shown	Pass

5.2.12 Placing Order :

no.	Name	Expected Output	Actual Output	Remark
1	name : kunal address :Kalwa pincode : 400605 city : thane state : Maharashtra country : India email : kkewat912gmail.com phone no. : 9167389699 mode of payment : offline	Order Placed Successfully	order placed successfully	pass
2	email : kkewat	incorrect email	incorrect email	pass
3	mode of payment : online	Redirect to payment gateway	Redirected to home page	Fail Inserted payment gateway link instead of home page link.
4	mode of payment : online	Redirect to payment gateway	Redirected to payment gateway	pass
5	on cancelling online payment	Redirect to cart	Redirect to cart	pass

5.2.13 Review :

no.	Name	Expected Output	Actual Output	Remark
1	Liked the Product	Review Sent Successfully		
2	Null	Please enter the review		
3	Nice Products	Review Sent Successfully		

5.2.14 Forgot Password :

no.	Name	Expected Output	Actual Output	Remark
1	email : kkewat91@gmail.com	email sent to email address	email sent	pass
2	email : kunal@gmail.com	no account registered with the following email	unable to find account	pass
3	email : Null	please enter the email	please enter the email	pass

5.2.15 User Account :

no.	Name	Expected Output	Actual Output	Remark
1	New Password : Kunal@123	Password Changed Successfully	Password Changed	Pass
2	New Password : Null	enter password	enter password	pass
3	New Password : Sun	password should contain a uppercase later, a lowercaseletter, a special character, minumum 8 letters and maximum10 letter	password should contain a uppercase later, a lowercaseletter, a special character, minumum 8 letters and maximum10 letter	pass
4	Delete Account	Account deleted	Account deleted successfully	Pass

Chapter 6 : Results and Discussion

6.1 Test Report :

The Testing part in project documentation is a very important phase. This phase helps to know whether all the functionalities are being performed the way that they are supposed to be executed.

The testing phase started with designing the test cases for each module as well as the designing process for integrating test cases were formed. Each module was analyzed and according to that test cases were formed. The test cases include input and the expected output to be seen after entering the values. After designing the test cases, the test cases were checked by actually entering the inputs and checking from different users whether they are getting the expected output or not. If the expected output matched the actual output then the test cases were remarked as successful or else remarked as failed. Not all the values were tried or tested but the process made sure the system would be able to cope up with any values.

After performing all the test cases, there were no more errors , so no more modification were needed in the respective modules. However sometimes some minor bugs were seen somewhere and were dealt accordingly without harming or changing any Modules.

6.2 User Documentation :

1. Open the website http://mermaidtear.somee.com

2. You will be redirected to default page as guest user. Then on the top right click on Register/sign up to register as new user.
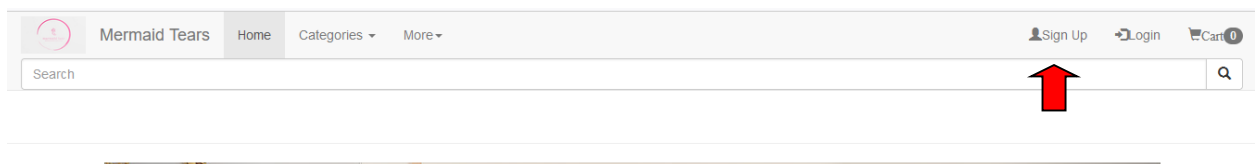
3. Register page will open enter all details and click on Submit.

After Successful Registration or if you are already a registered user then click on login button.

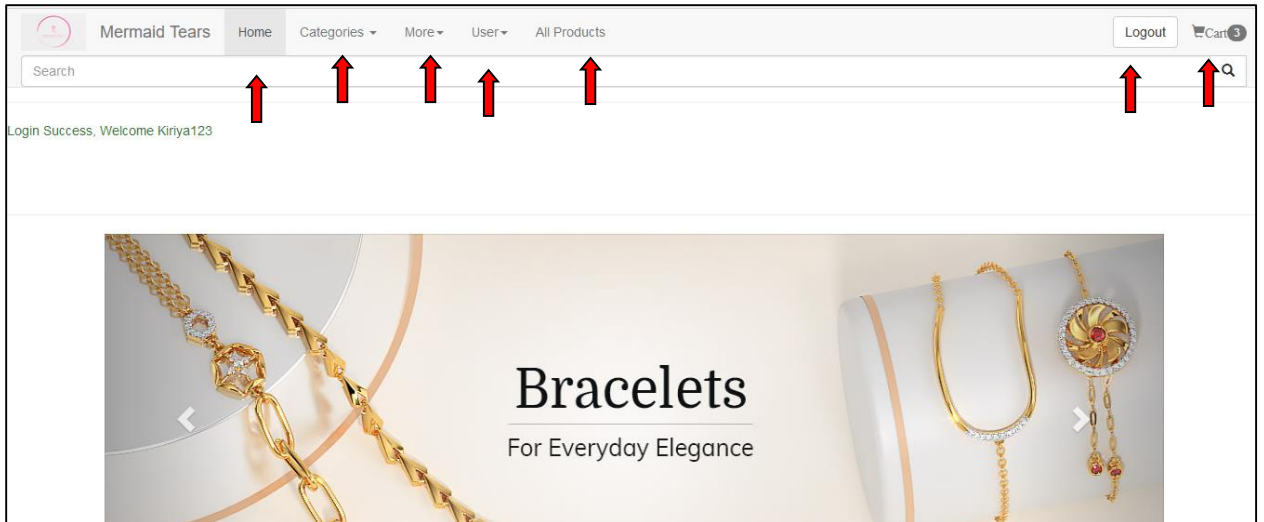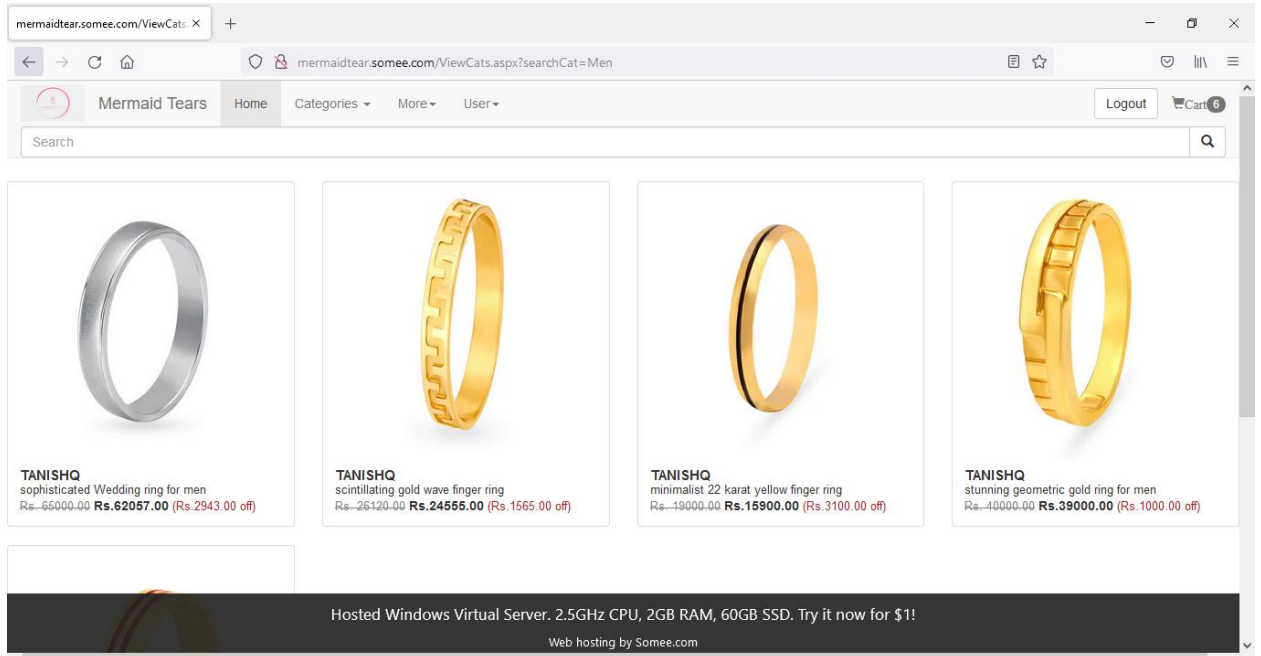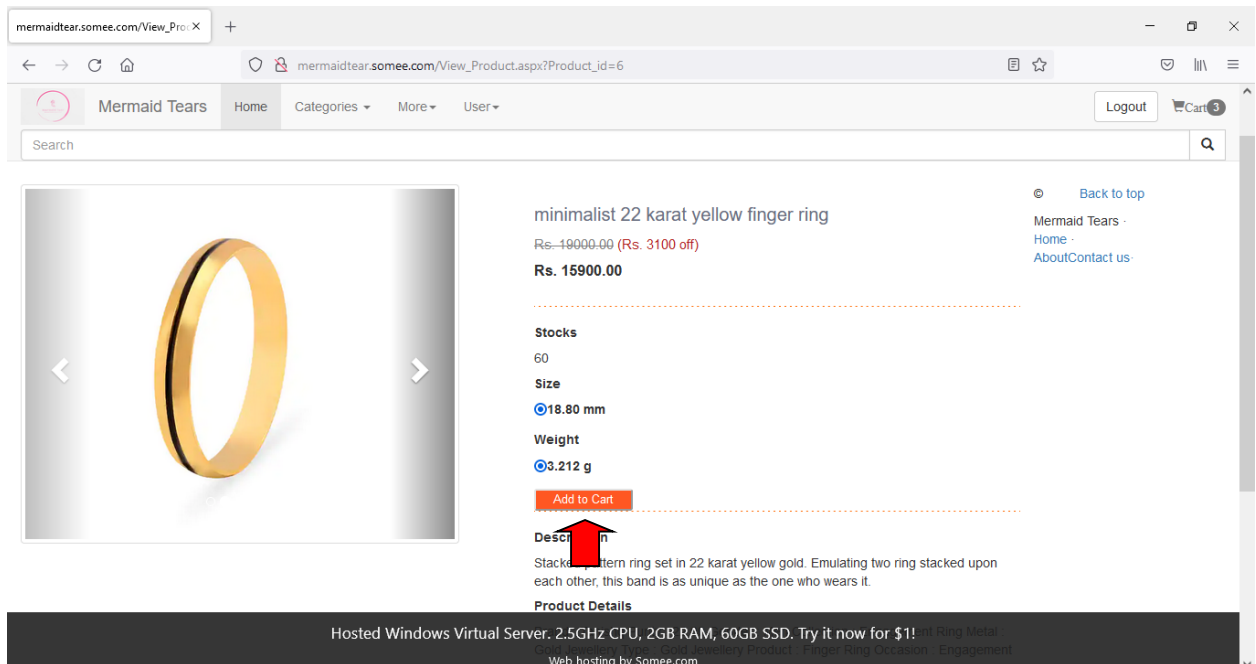4. On login page enter all the details and click on the submit button.

5. You will be redirected to user home page.

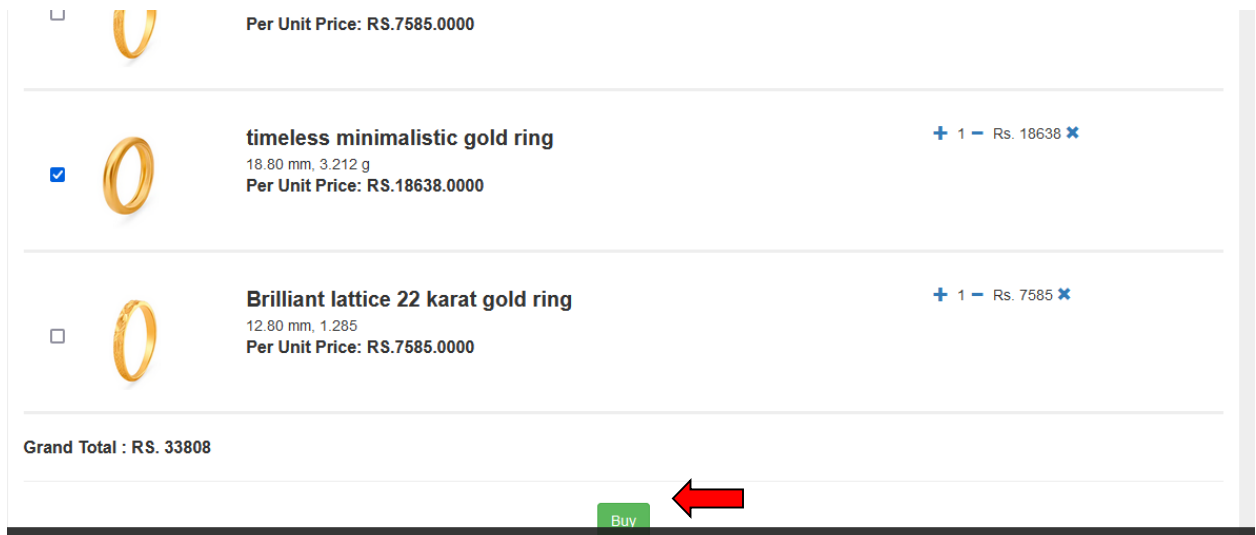6. On home page you can view categories, search products, view your carts, view your account.

7. Click on all products or search for a product.

8. Click on any Product to view its detail. And if you want to buy it then click on add to cart button.

9. To Buy products. Go to cart and select the products and click on buy button.

10. On checkout page give all the details and click select the payment type and click on buy button.

11. Your order will be placed

12. To Change the password click on user button then click my account then select change password and enter the password and click on update password.

13. To view the order click on order button right below my account button in the user tab.

Order id	Product id	User Name	Product Name	Size	Weight	Quantity	Price	Payment Type	Payment Status	Date & Time		
4	7	kiriya123	timeless minimalistic gold ring	18.80 mm	3.212 g	1	18638.0000	Online	Paid	20/03/2022 12:34:12	🗑	
3	2	kiriya123	Brilliant lattice 22 karat gold ring	12.80 mm	1.285	1	7585.0000	Online	Paid	04/03/2022 21:10:45		Cancelled
2	1	kiriya123	vibrant 22 karat yellow gold striped finger ring	17.20 mm	3.820 g	2	24135.0000	Online	Paid	04/03/2022 21:10:45	🗑	
1	2	kiriya123	Brilliant lattice 22 karat gold ring	12.80 mm	1.285	1	7585.0000	Offline	Pending	28/02/2022 18:00:30		Cancelled

14. He about us, contact us and the guide book for jewellery shopping is available in more tab.
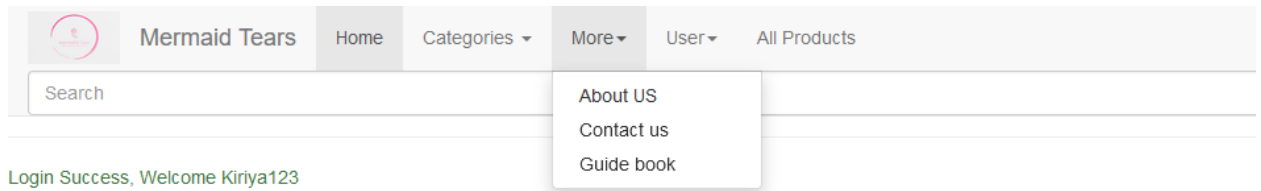
Chapter 7 : Conclusion

7.1 Conclusion :

    The online jewellery website will be helpful for the customer as well as the seller for buying and selling jewelleries. This will save their time as they can buy jewellery from their home. The seller will also will be able to make a large profit as many people will see the website and at their home convenience and it will increase the number of the customers.

  The customer will be able to get a variety of choice to choose from and all the certified and hallmarked products at a good price and with discount and by sitting anywhere at their convenience saving time and money.

  There will be many types of brands and categories to choose from and products of all types will be available. This system will create a bridge between the Customer and seller which will help them to overcome the barrier of time and place. T
The customer can write any review which will be available to seller to view and thus they can work on any improvement needed. The customer can also request for any custom made jewellery to the seller which the seller will make after proper discussion with the customer.

7.2 Limitations :

- User cannot view live gold and silver rates.
- Bill/Receipt is not generated on placing the order.
- User can update only their password.
- Admin cannot reply directly from the page to any reviews or customization request, They have to copy the users email address and paste it in the mail recipients to reply them.
- User cannot select any different size or weight of the products.
- Price cannot change if different size or weight of products is choosed.
- Proper category name as mentioned in database should be available for viewing the products on slider click of category click.
- Since the payment button is used in this website and real money will be deducted the amount is set to Rs.1 for online payment on any products.
- Payment gateway for shopping website was unable to integrate with the website.

7.3 Future Scope :

- Payment Gateway can be integrated to make the payment of the products and their amount.

- Create a link for incoming and outgoing response between the customer and the seller.

- It can be made more dynamic for better use .

- The system can be divided into more parts where the seller can also be added into the system as right now only customer and admin are present in the picture.

- The guide book can be made more easy to unserstand by the user.

- AI can be used for trying the jewellery by 3d try view through the device.

Bibilography and References

Books Referred :

- Uml Tutorialspoint
- Software Engineering,"Ian Somerville", pearson publisher 8 edition
- Database System Conceptes,"Henry F Korth, Abraham Silberschatz"
- Beginning Asp.net 4.5 in C#,"Mattew MacDonald",Apress

Website References :

The Links referred from the date 9/07/2021 to 15/10/2021 :

- https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwiEv8Lt8OnzAhUXAXIKHQrDBKMQFnoECAUQAQ&url=https%3A%2F%2Fwww.ablebits.com%2Foffice-addins-blog%2F2014%2F05%2F23%2Fmake-gantt-chart-excel%2F&usg=AOvVaw3fF-Mv94XWAM04rBGCSFS7 (2 days)
- Draw io: https://app.diagrams.net/ (1 month)
- Geeks for Geeks: https://www.geeksforgeeks.org/ (15 days)
- Wikipedia: https://en.wikipedia.org (5days)
- JavaPoint: https://www.javatpoint.com/software-processes   (10 days)
- Project topic ideas : https://nevonprojects.com/project-ideas/software-project-ideas/ (4 days)
- Youtube : https://www.youtube.com (7 days)

The Links referred from the date 20-Nov-2021 to 1-April-2022:

- W3School : https://www.w3schools.com (3 Months)
- W3School Bootstrap3 : https://www.w3schools.com/bootstrap/default.asp (2 months)
- Asp snippets : https://www.aspsnippets.com/ (10 days)
- C# corner : https://www.c-sharpcorner.com/ (3 months)
- Geeks for Geeks : https://www.geeksforgeeks.org/ (2 months)
- Stack Overflow : https://stackoverflow.com/ (4 months)
- Youtube : https://www.youtube.com (2 months)