

A
PROJECT REPORT(UDP)
ON
“SenseShop”

SUBMITTED BY:

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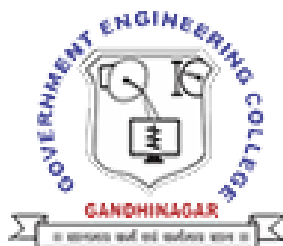
TEAM ID: 4004

IN FULFILLMENT FOR THE AWARD OF THE DEGREE
OF
BACHELOR OF ENGINEERING
IN
COMPUTER ENGINEERING



GOVERNMENT ENGINEERING COLLEGE,
GANDHINAGAR
GUJARAT TECHNOLOGICAL UNIVERSITY,
AHMEDABAD

**GOVERNMENT ENGINEERING COLLEGE,
GANDHINAGAR
GUJARAT TECHNOLOGICAL UNIVERSITY,
AHMEDABAD**



CERTIFICATE

This is to certify that the project entitled **SenseShop** is a bonafied report of the work carried out by **Chauhan Harsh(150133107005)** and **Gandha Bhavin(150133107008)** under the guidance of **Internal guide – Prof. M.B. Chaudhry** for the successful completion of project, Computer Engineering at **Government Engineering College, Gandhinagar, Gujarat.**

To the best of my knowledge and belief, this work embodies the work of candidate herself/himself, has duly been completed, fulfils the requirement of the ordinance relating to the completion of project and is up to the standard in respect of content, presentation and language for being referred to the examiner.

M.B. Chaudhry
(Internal Guide)

B.V. Buddhadev
(HOD CE-IT)

ACKNOWLEDGEMENT

I would like to express my deep feeling of gratitude to the under mentioned officials for their assistance, guidance and inspiration throughout the project. I am very thankful to my college “Government Engineering College, Gandhinagar”, for providing best facilities. I am highly grateful to the college to give me an opportunity to have experience in working with such an experienced Institute. I would like to express my sincere thanks to who showed trust in me and provide me with such a challenging project. I would also like to thank my internal project guide “Prof. M.B. Chaudhry” for spending their valuable time for providing me better guidance to achieve my goal, I want to express my deep appreciation for the continuous support and encouragement from my faculty members. Last but not the least, I would also thank all those who have helped me implicitly or explicitly but whose names have forgotten to mention.

Thanking you,

Your's sincere Students

Chauhan Harsh[150133107005]

Gandha Bhavin[150133107008]

ABSTRACT

SenseShop is a web based application that provides a very convenient way of shopping to the customer for faster checkouts and easy payments using various type of sensors. Main goal for system is to save the valuable time of customer for purchasing of the daily needs. SenseShop system can also be used for the inventory management and the Warehouse management of the goods so that it can be efficient and helpful for the customer as well as the Retailer.

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CHAPTER:-1 INTRODUCTION

1.1 PROJECT PROFILE :-

Project Title	SenseShop
Project Type	Web Application
Objective	“To Provide Easy, Fast and seamless retail shopping experience.”
Front End	Python/Web
Back End	Python/Django
Institute Name	Government engineering college, Gandhinagar
Internal Guide	Professor M.B. Chaudhry
Development Team	Chauhan Harsh Gandha Bhavin

1.2 OBJECTIVE OF WORK :-

This solution is for the retail shops to give a generalized and best solution for the easy and cost-effective automation for many customers who don't want to waste time for shopping everyday things and also helps the Retail merchants for maintaining the sales as well as stocks.

1.3 SCOPE OF WORK :-

Customers:

The scope of this solution for customers is any person who is involved in Purchase of any everyday things from a retail shop.

Retail Shop Owners:

The scope of this solution for merchants who is having a shop and want to maintain it effortlessly.

1.4 TECHNOLOGY USED :-

Front-End :

- Python/Web

Back-End :

- Python/Django

1.5 COMPARISONS WITH EXISTING SYSTEM :-

In the current flow when a person wants to buy a things from a Retail Shop they need to scan and verify the purchase for billing by a merchant. Sometimes there can be huge queues for the scanning and billing which is a time consuming process. Same for the merchants they have to verify and needs to track the stock of a particular product.

In proposed system when the person wants to buy a things form a Retail shop they don't need to scan and verify the purchase form billing by a merchant because all the process will be executed thru sensors by our system. It also tracks the current Stock of the particular product form the shop as well as Wearhouse.

CHAPTER:-2 PROJECT MANAGEMENT

2.1 MILESTONES AND DELIVERABLES :-

- Secure and Reliable payment method.
- Set triggers for low stock.
- Tracks the previous orders.
- Customers can file the complaints.
- Precision tracking of sales.

2.2 RISK MANAGEMENT :-

All projects involve risks. If a potential risk of the project is not identified early, then the project will be at a high risk to complete as per schedule, within budget and to meet the expected quality. One of the current difficulties faced by a new Project Manager today is not having a sample or general risk list to refer to when identifying the project risk

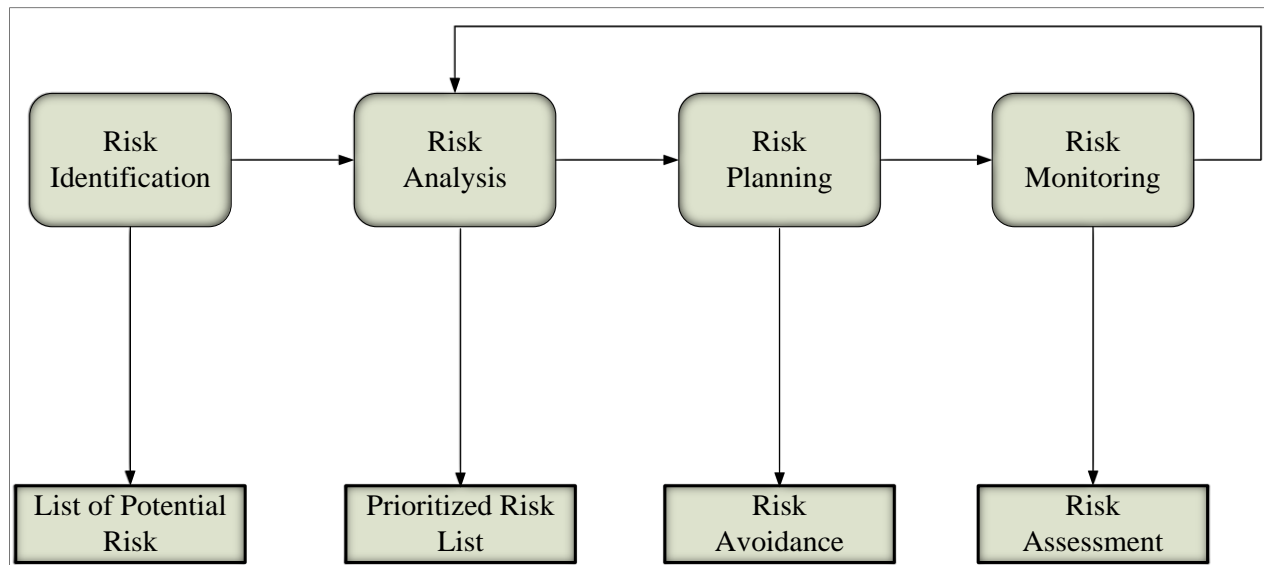


Fig 2.2.2: Risk Management

2.3 RISK IDENTIFICATION :-

After establishing the context, the next step in the process of managing risk is to identify potential risks. Risks are about events that, when triggered, cause problems. Hence, risk identification can start with the source of problems, or with the problem itself.

Project Risk identification is the most important process in the Risk Management Planning. Risk Identification determines which risks might affect the project and documents their characteristics. However, as recommended by [Donna Ritter], we should not spend too much time in identifying risks.

2.4 RISK ANALYSIS :-

Regardless of the prevention techniques employed, possible threats that could arise inside or outside the organization need to be assessed. Although the exact nature of potential disasters or their resulting consequences are difficult to determine, it is beneficial to perform a comprehensive risk assessment of all threats that can realistically occur to the organization.

2.5 RISK PLANNING :-

To mitigate the risks, project management must develop a strategy for reducing turnover. Among the possible steps to be taken are:

Meet with current staff to determine causes for turnover (e.g. poor working conditions, low pay competitive job market).

Mitigate those causes that are under our control before the project starts.

Once the project commences, assume turnover will occur and develop techniques to ensure continuity when people leave.

Organize project teams so that information about each development activity is widely dispersed.

Define documentation standards and establish mechanisms to be sure that documents are developed in a timely manner.

CHAPTER:-3 SYSTEM ANALYSIS & REQUIREMENT

3.1 SYSTEM FEASIBILITY :-

- Feasibility is the measure of how beneficial the development of an information system will be to an organization. A process by which we measure feasibility is called as the feasibility analysis.
- The Feasibility analysis is categorized under three different types:
 1. Operational Feasibility.
 2. Economical Feasibility.
 3. Technical Feasibility.

➤ Operational Feasibility

The app should be easy to operate by the user. Proposed projects are beneficial only if they can be turned into information systems that will meet the user's requirements. Following are some points underlying the operational feasibility of the app.

- Customers can operate the System easily.
- Customers can make transaction easily
- Customers can visit previous order for reference.

➤ Economical Feasibility

According to the concept of economical study, the system should be completed with minimum cost. And tools which we used is open source so, the proposed system is cost effectiveness. This app is in range of budget which is assumed or declared for developing it. So, it is economical feasible. In this budget the cost of hardware and software for the system is being considered.

- **Requirement Validation :**

This project contains the following validations: These validations include input validation for the members or the users while registration.

- At the time of Login, Email & Password must be required.
- The email id should contain symbols like '@' and '.'
- Compare validation is used to compare and confirm the password.
- Some fields are compulsory to be filled by the members.

➤ **Technical Feasibility**

Technically the app's GUI should be less complex. Technical feasibility means technically app should be comfortable for further versions. The proposed app has technical capacity to hold the data and provide technical support which is expected. The new app provides adequate responses to inquiries of all users. The System has technical guarantees of accuracy, reliability, ease of access and data security.

- The System is very much open by nature and can easily be expanded in the near future to satisfy newly emerging needs.

3.2 REQUIREMENTS OF SYSTEM :-

➤ **Hardware Requirements:-**

Hardware	Recommended System Requirements
RAM	<512 MB>
INTERNAL STORAGE	<256 MB>

Table 3.2.1: Hardware Requirements

➤ **Software Requirements :-**

Front End	<Python/Web>
Back End	<Python/Django>
Operating System	<Windows >
Programming Language	Python

Table 3.2.2: Software Requirements

3.3 FUNCTIONAL REQUIREMENTS :-

- Each Module should Register the System after that they can login into the System.
- Each Module can Logout the system.
- Each Module can modify Personal Information.
- Admin can modify the products.
- Admin can manage the stocks.
- Customers view previous orders.
- Customers can file complaint.
- Customer can give feedback.

3.4 NON-FUNCTIONAL REQUIREMENTS :-

Security:

- Only authorized person can view and modify confidential details.
- Each User has his/her own access rights and to lower level user there are restrictions of not using some of the system components.
- One user can't access other user's account.
- User should compulsory fill right details.

Privacy:

- As a control, Privacy means that your actions cannot be seen or interpreted by anyone who is not supposed to know.
- Any person will be not able to change or modify information.

Scalability:

- Performance of the system should not be degraded when many users are logged-in and accessing the database at the same time.

Reliability:

- The database of various modules are maintained by system should be correct and maintained up to date.

CHAPTER:-4 SYSTEM DESIGN

4.1 E-R DIAGRAM :-

The **Entity-Relationship (ER) model** is a conceptual data model, capable of describing the data requirements for a new information system in a direct ,easy to understand graphical notation, to express their understanding of what the planned database is intended to do and how it might work, and to communicate about the database through a common language.


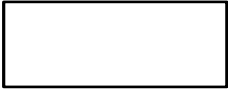


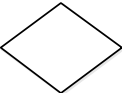



	Ellipse -shows attribute .
	Rectangle -Entity class
	Double ellipse -multivalued attribute
	Dotted ellipse
	A Decision Node: Is used to represent a test condition to ensure that the control flow or object flow only goes down one path.
	A line is used to connect attributes , decision and so on.
	A line is used for one to many.
	This line describe as one to many.

Table 4.1.1: Symbols used in E-R Diagram

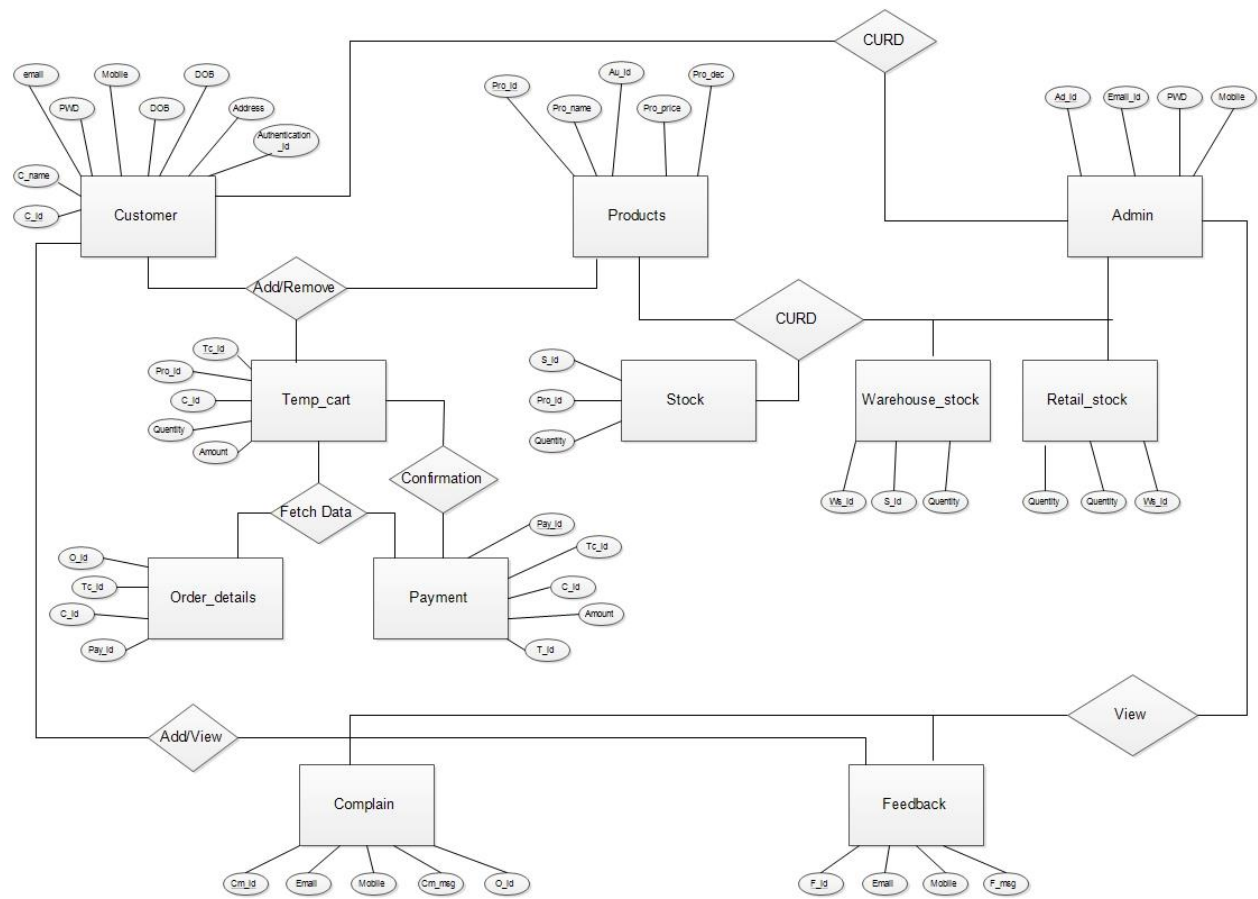


Fig 4.1.1: E-R Diagram

4.2 USE CASE DIAGRAM :-





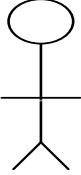
Symbols	Represent as	Description
	Frame or boundary	To create system environment
	Use case	entity or process are filled
	Arrow	It gives the direction from one to another
	Dotted arrow	Extending use case is optional, supplementary.
	Actor	It shows the module of the system.

Table 4.2.1: Symbols used in Use Case Diagram

Customer:

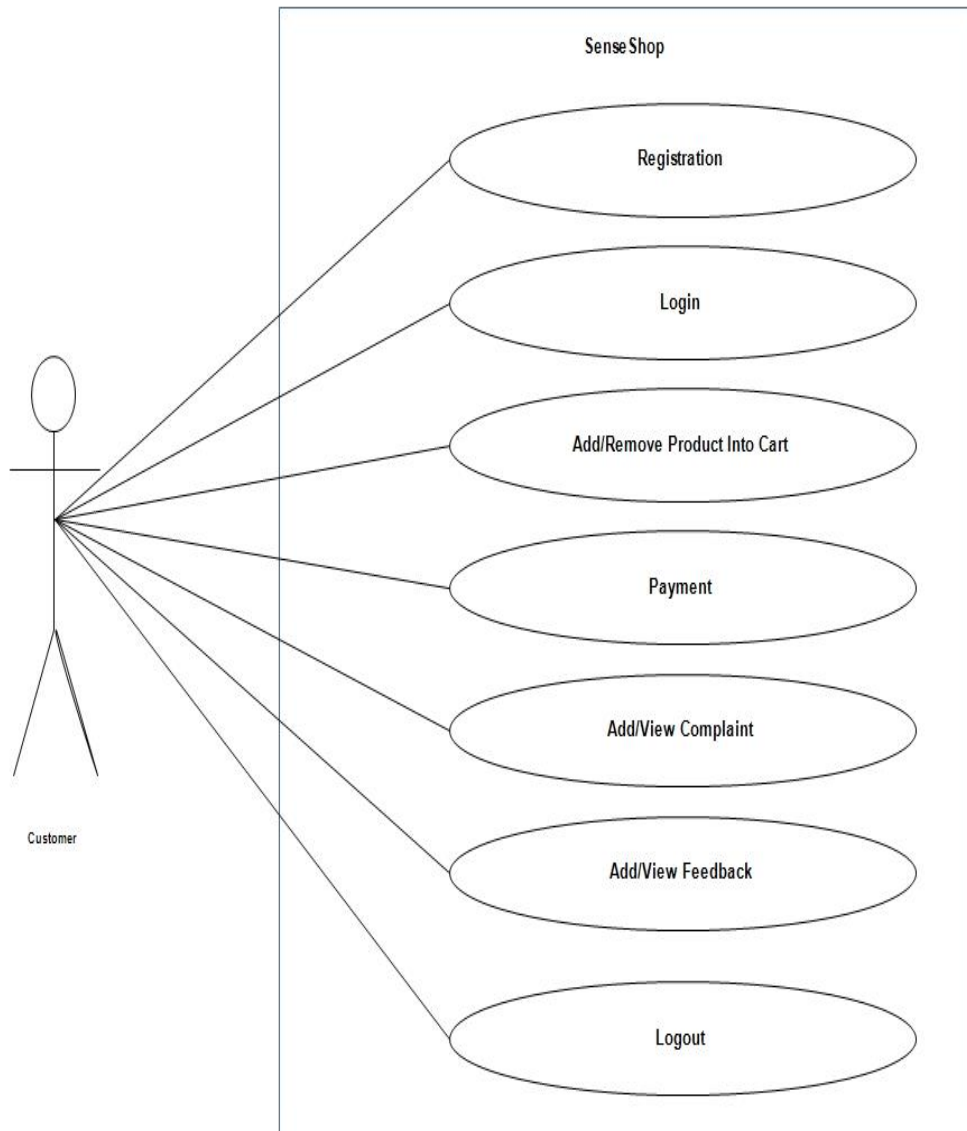


Fig 4.2.1: Customer Use Case Diagram

Admin

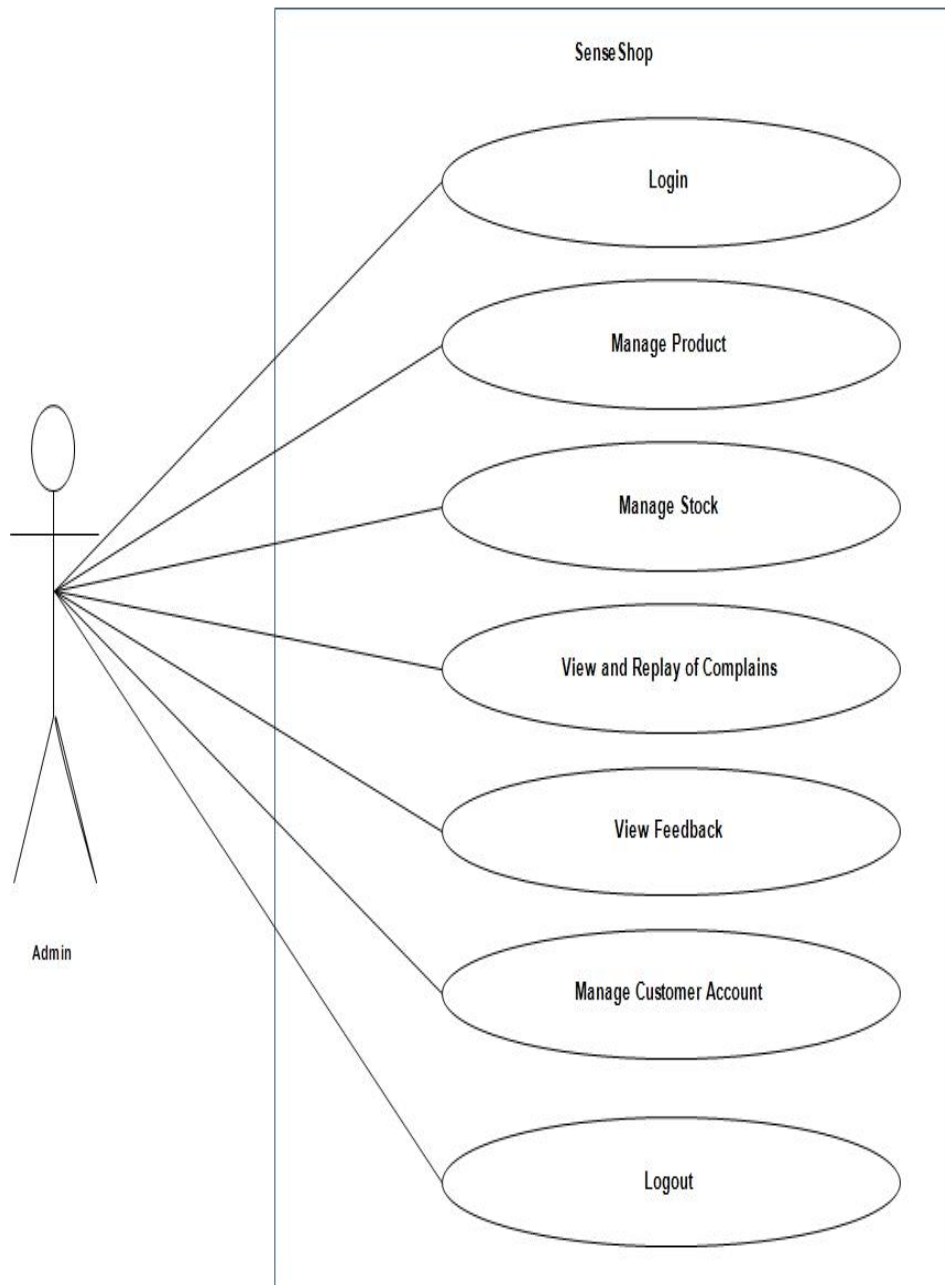


Fig 4.2.2: Admin Use Case Diagram

4.3 DATA FLOW DIAGRAM :-

A **Data-Flow Diagram (DFD)** is a graphical representation of the "flow" of data through an information system. DFDs can also be used for the visualization of data processing.

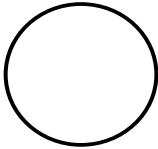


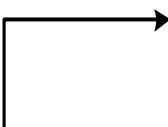
Symbols	Represent as
	Function
	Database
	Input/output
	Flow

Table 4.3.1: Symbols used in DFD

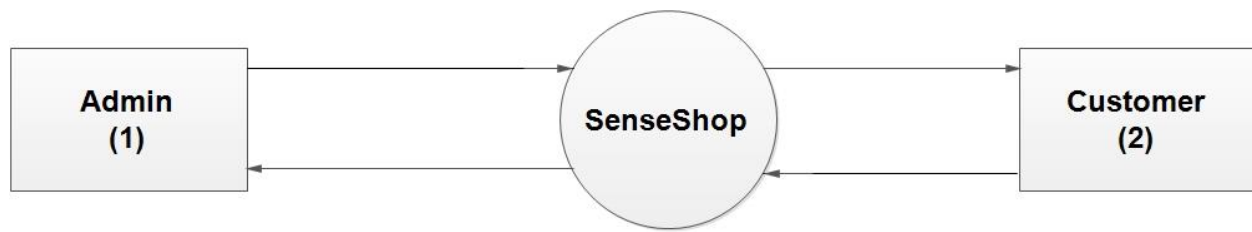
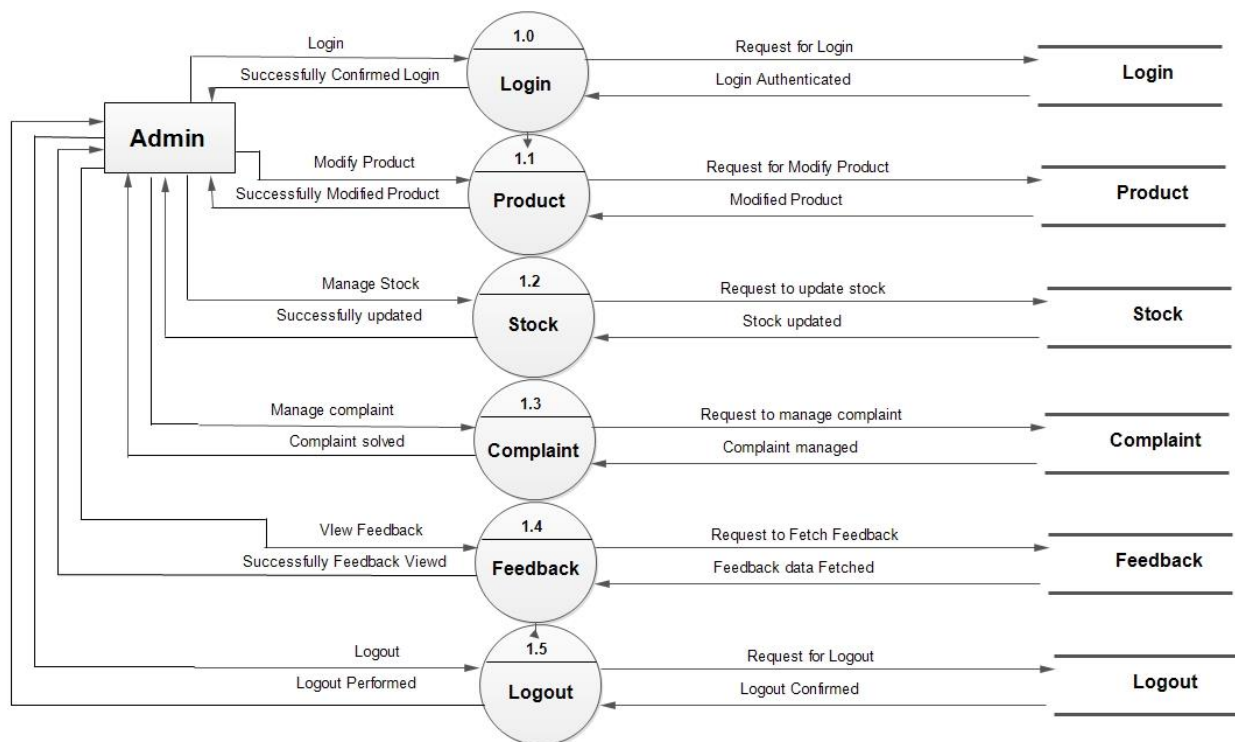
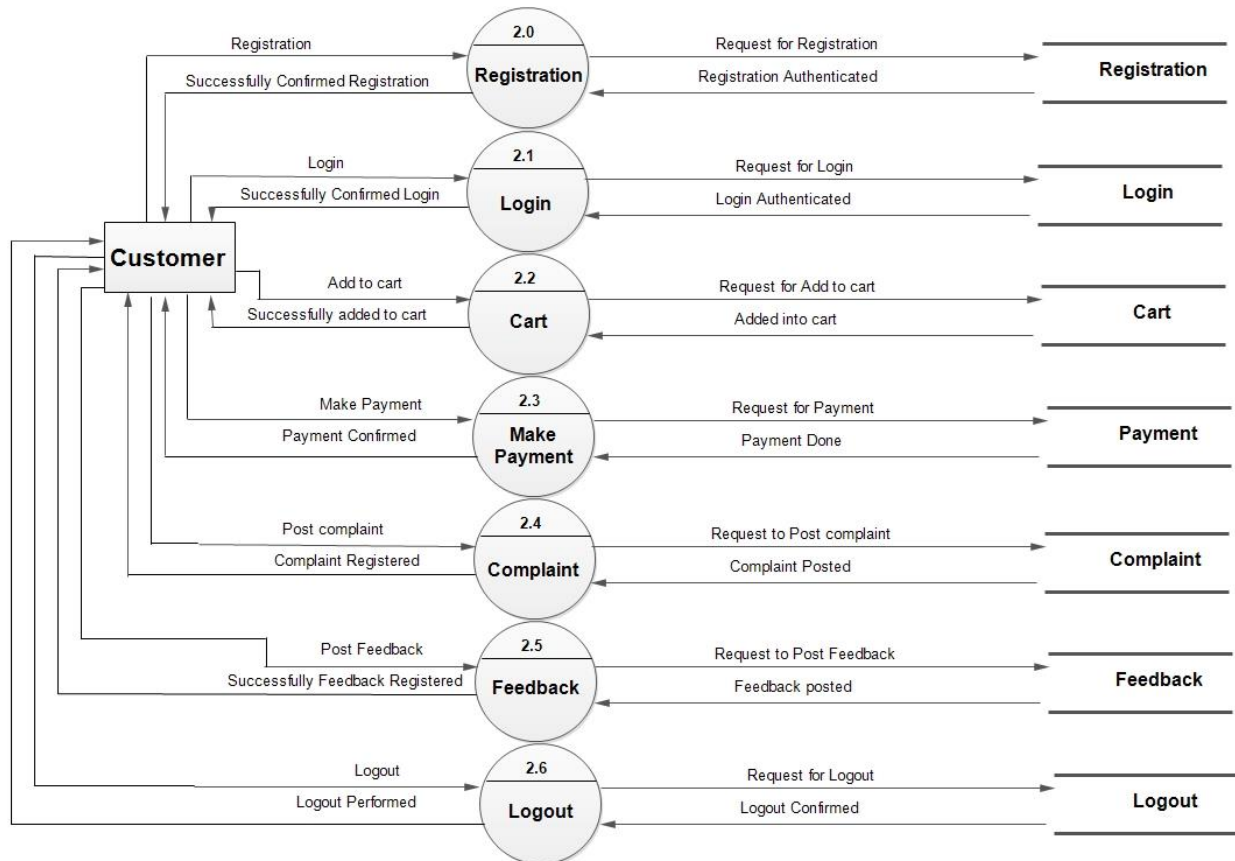
Context Level Diagram:

Fig 4.3.1: 0-Level DFD Diagram

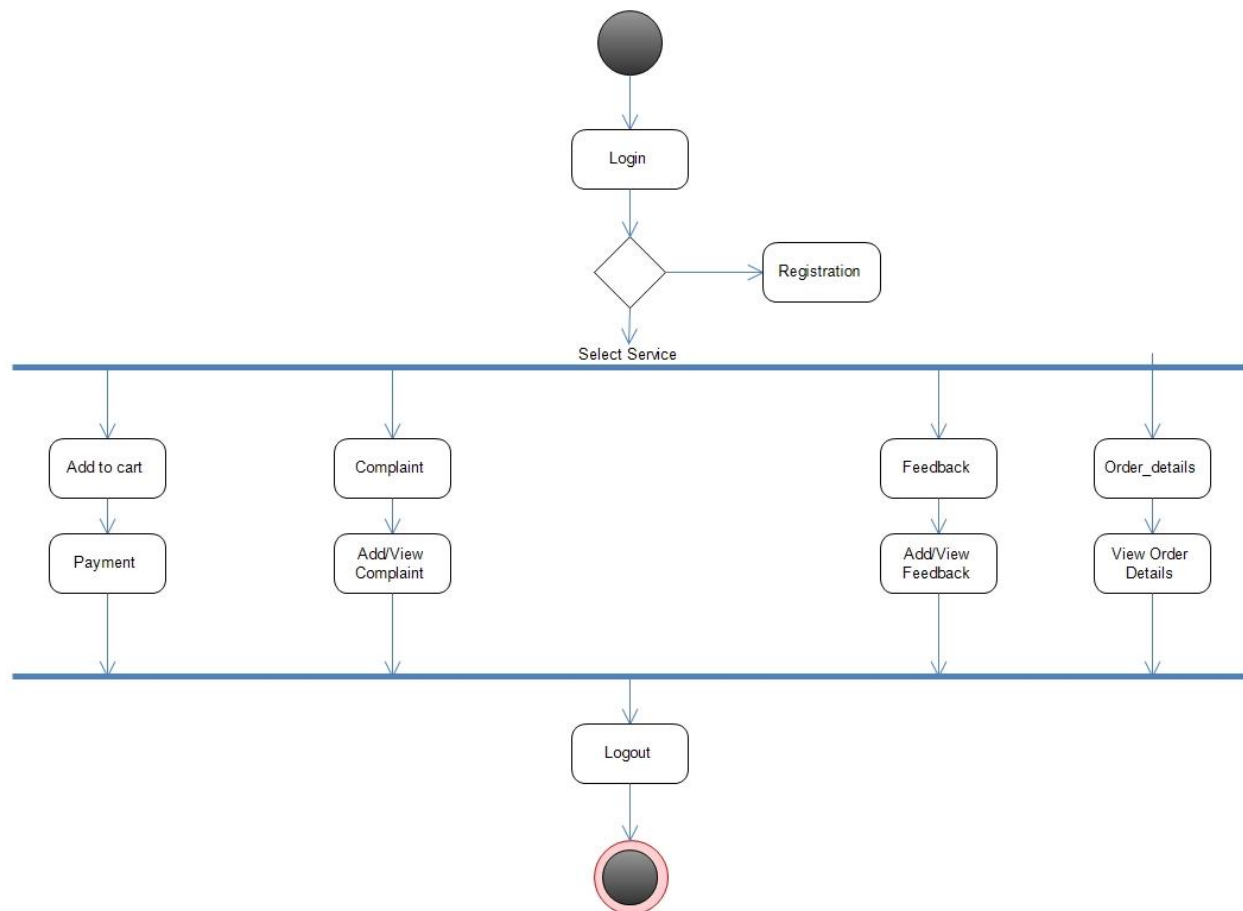
1st-Level DFD:Fig 4.3.2: Admin 1st Level DFD Diagram

2nd-Level DFD:Fig 4.3.3: Customer 2nd Level DFD Diagram

4.4 ACTIVITY DIAGRAM :-

Activity diagrams, which are related to program flow plans (flowcharts), are used to illustrate activities. In the external view, we use activity diagrams for the description of those business processes that describe the functionality of the business system. Contrary to use case diagrams, in activity diagrams it is obvious whether actors can perform business use cases together or independently from one another.

Customer



Fig

4.4.1: Customer Activity Diagram

Admin

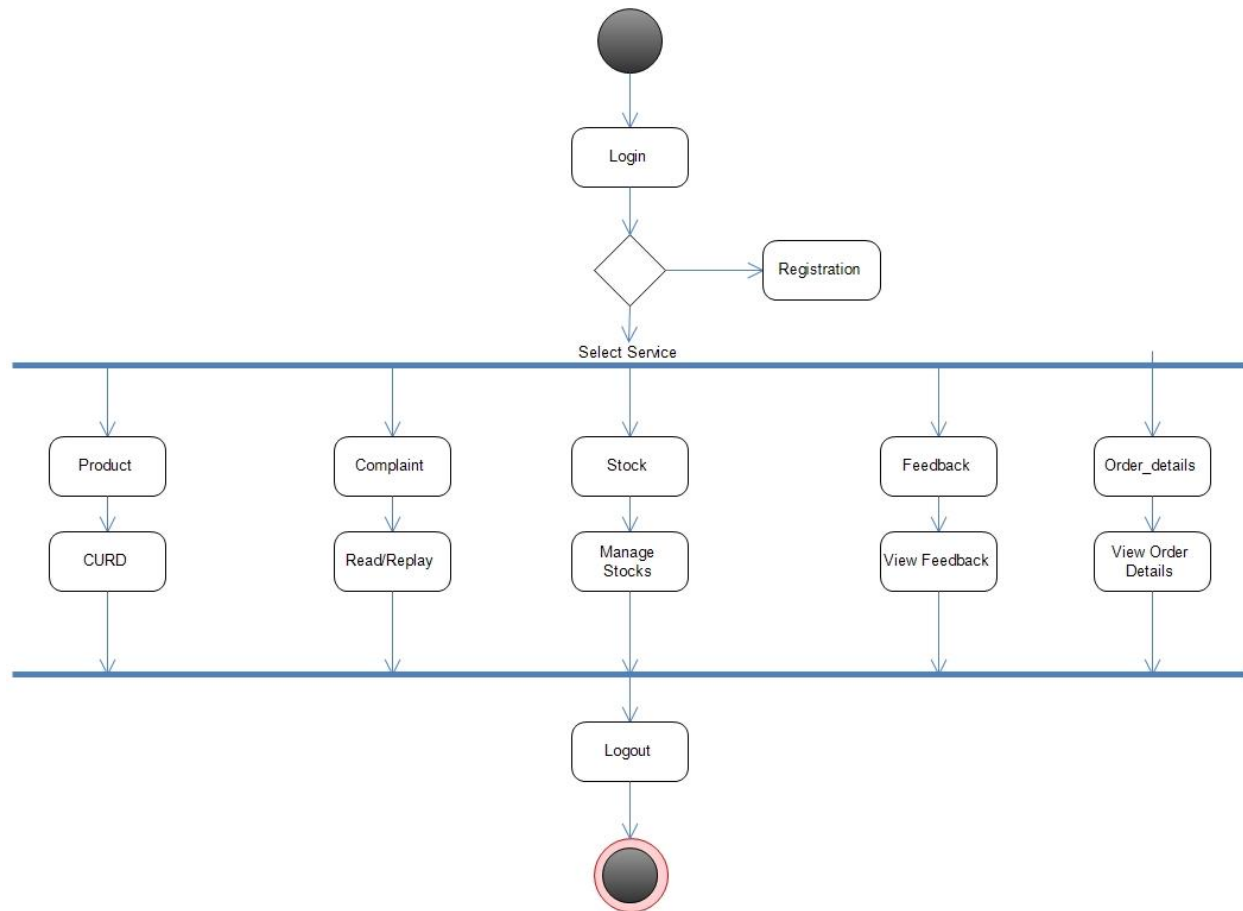


Fig 4.4.2: Admin Activity Diagram

4.5 CLASS DIAGRAM :-

The **Class Diagram** is a static diagram. It represents the static view of an application. A Class Diagram is an illustration of the relationships and source code dependencies among classes in the Unified Modeling Language (UML). In this context, a class defines the methods and variables in an object, which is a specific entity in a program or the unit of code representing that entity. Class diagrams are useful in all forms of object-oriented programming (OOP).

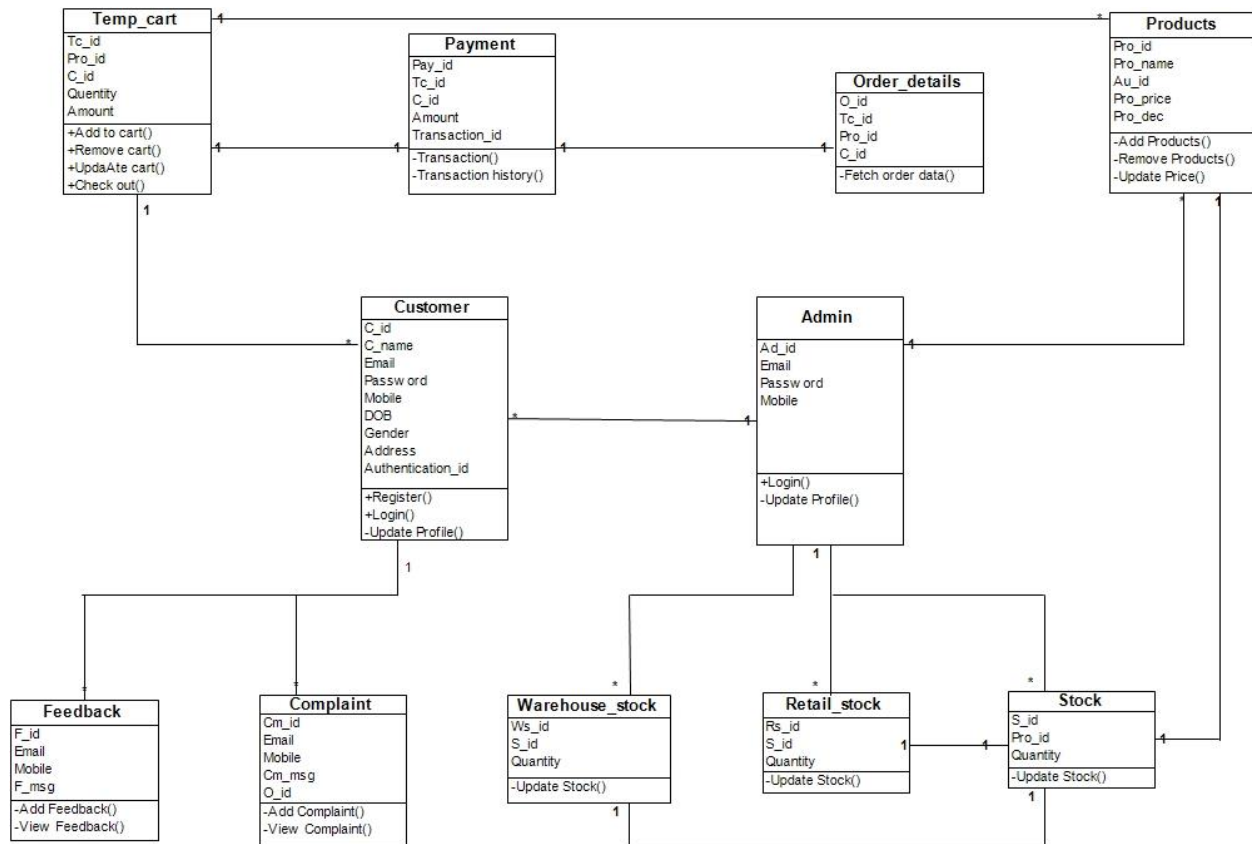


Fig 4.5.1: Class Diagram

4.6 SEQUENCE DIAGRAM :-

The Sequence Diagram models the collaboration of objects based on a time sequence. It shows how the objects interact with others in a particular scenario of a use case. With the advanced visual modeling capability, you can create complex sequence diagram in few clicks. Besides, VP-UML can generate sequence diagram from the flow of events which you have defined in the use case description.

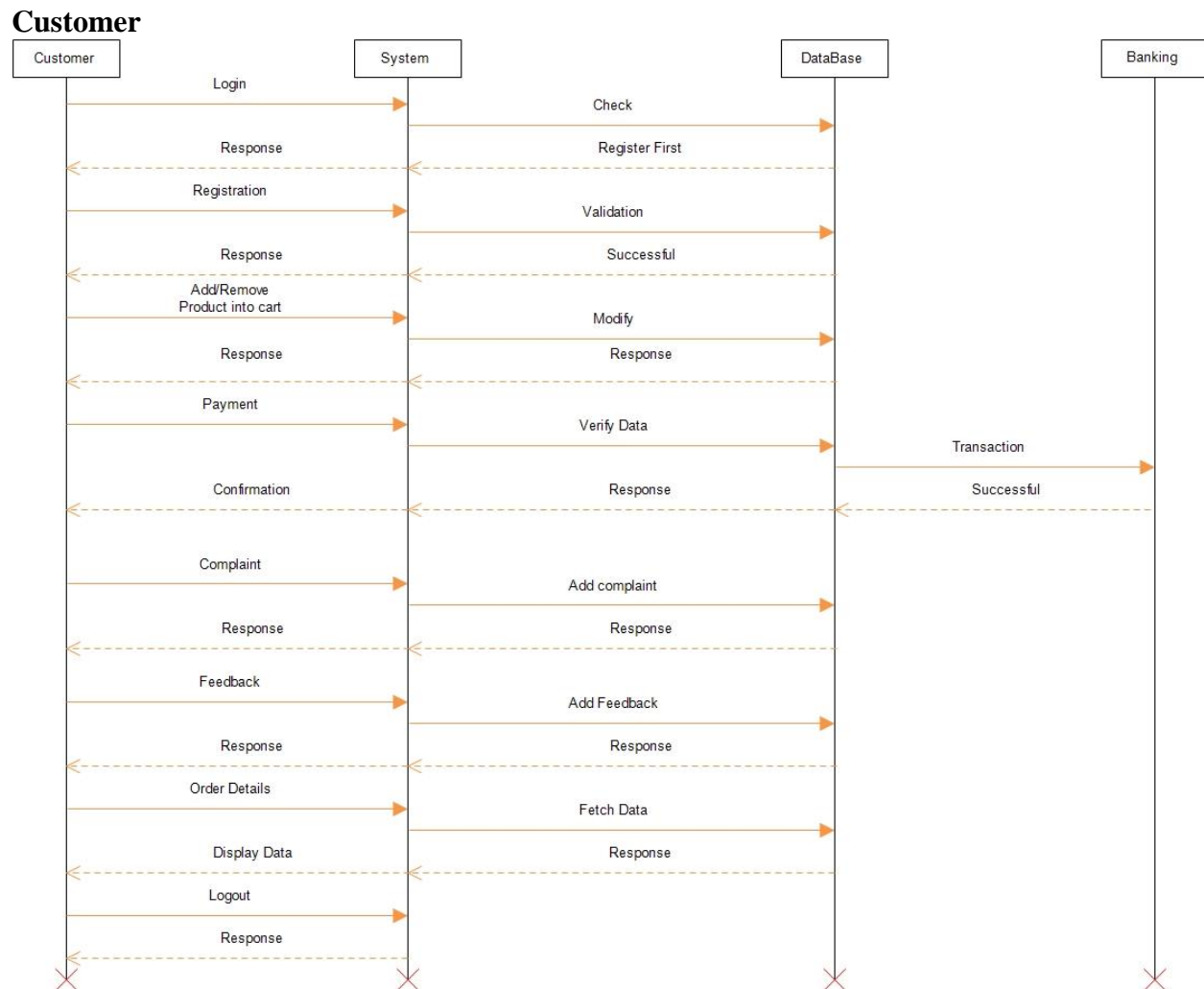


Fig 4.6.1: Customer Sequence Diagram

Admin

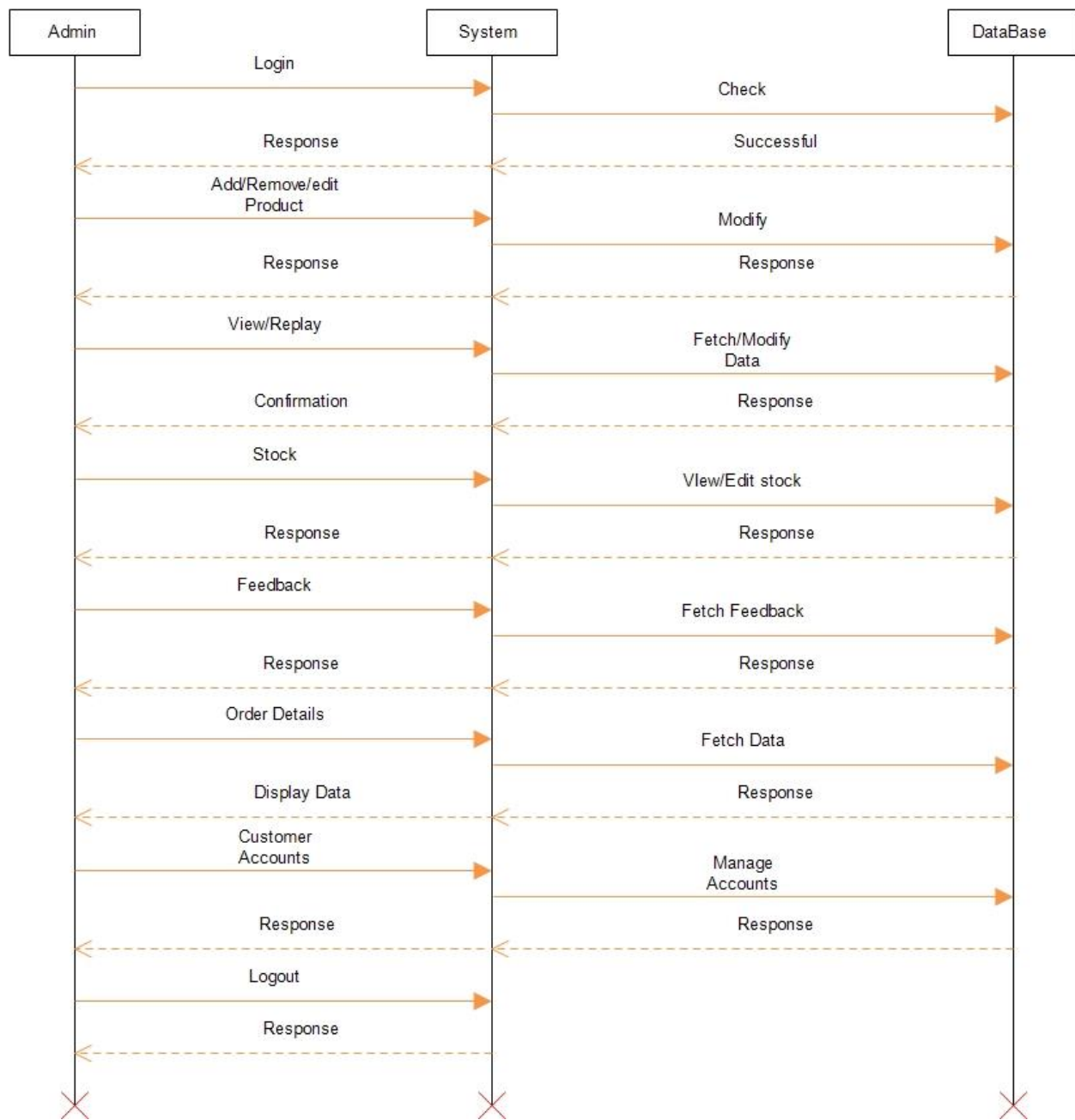


Fig 4.6.2: Admin Sequence Diagram

CHAPTER:-5 DATA DICTIONARY

A **Data Dictionary** is a catalog – a repository – of the elements in a system. As the name suggests, these elements centre on data the way they are structured to meet user requirements and organization needs. In a data dictionary you will find a list of all the elements composing the data flowing through a system. The major elements are data flows, data stores, and processes. The data dictionary stores details and descriptions of these elements.

Customer			
Field	Type	Constraints	Description
C_id	Int	Primary Key	Id of Customer
C_name	Varchar(30)	Not Null	Name of Customer
Email	Varchar(20)	Not Null	Email Id of Customer
Password	Varchar(20)	Not Null	Password of Customer
Mobile_no	Int(10)	Not Null	Mobile No of Customer
DOB	Varchar(30)	Not Null	Date of Birth
Gender	Varchar(10)	Not Null	Gender of Customer
Address	Varchar(20)	Not Null	Address of Customer
Authentication_id	Varchar(20)	Not Null	Identity of Customer
Flag	Int	Not Null	For defining Flags

Table 5.1: Customer

Payments			
Field	Type	Constraints	Description
Pay_id	Int	Primary Key	Id of Payment
Tc_id	Int	Foreign Key	Id of Temporary Cart
C_id	Int	Foreign Key	Id of Customer
Amount	Int	Not Null	Total amount of payment
Flag	Int	Not Null	For defining flags
Transaction_id	Int	Unique	Id of Transaction

Table 5.2: Payments

Temp_cart			
Field	Type	Constraints	Description
Tc_id	Int	Primary Key	Id of Temporary Cart
Pro_id	Int	Foreign Key	Id of Product
C_id	Int	Foreign Key	Id of Customer
Quantity	Int	Not Null	Quantity of Product
Total_amount	Int(10)	Not Null	Total Amount of Cart
Flags	Int	Not Null	For Defining flags

Table 5.3: Temp_cart

Order_details			
Field	Type	Constraints	Description
O_id	Int	Primary Key	Id of Saloon
Tc_id	Int	Foreign Key	Id of temporary cart
Pay_id	Int	Foreign Key	Id of Payments
C_id	Int	Foreign Key	Id of Customers
Flag	Varchar(50)	Not Null	For defining flags

Table 5.4: Order Details

Admin			
Field	Type	Constraints	Description
Ad_id	Int	Primary key	Id of Admin
Email_id	Varchar(30)	Not Null	Email of Admin
Password	Varchar(30)	Not Null	Password of Admin
Mobile_no	Int(11)	Not Null	Mobile No of Admin
Flag	Int	Not Null	For defining flags

Table 5.5: Admin

Products			
Field	Type	Constraints	Description
Pro_Id	Int	Primary Key	Id of product
Pro_name	Varchar(30)	Not Null	Name of product
Au_id	Varchar(30)	Not Null	For authentication purpose.
Pro_price	Int	Not Null	Price of the Product
Pro_dec	Varchar	Not Null	Description of product
Flag	Int	Not Null	For Defining flags

Table 5.6: Products

Stock			
Field	Type	Constraints	Description
S_id	Int	Primary Key	Id of Total stock
Pro_id	Int	Foreign Key	Id of product
Quantity	Int	Not Null	Quantity of Total stock
Flag	Int	Not Null	For Defining flags

Table 5.7: Stock

Warehouse_stock			
Field	Type	Constraints	Description
Ws_id	Int	Primary Key	Id of warehouse stock
S_Id	Int	Foreign Key	Id of total stock
Quantity	Int	Not Null	Quantity of Stock in Warehouse
Flag	Int	Not Null	For Defining flags

Table 5.8: Warehouse_stock

Retail_stock			
Field	Type	Constraints	Description
Rs_id	Int	Primary Key	Id of Retail stock
S_id	Int	Foreign Key	Id of total stock
Quantity	Int	Not Null	Quantity of stock in Retail
Flag	Int	Not Null	For Defining flags

Table 5.9: Retail_stock

Complaint			
Field	Type	Constraints	Description
Cm_id	Int	Primary Key	Id of Complaint
Email	Varchar(30)	Not Null	Email id
Monile	Int(11)	Not Null	Mobile
Cm_msg	Varchar(250)	Not Null	Message of complaint
O_id	Int	Foreign Key	Id of Order
Flag	Int	Not Null	For defining Flags

Table 5.10: Complaint

Feedback			
Field	Type	Constraints	Description
F_id	Int	Primary Key	Seller Id of Seller Registration Table.
Email	Int	Foreign Key	Customer_Id of Customer Registration Table.
Mobile	Int	Foreign Key	Saloon Id of Saloon Registration Table.
F_msg	Int	Primary Key	Id of Advertisement.
Flag	Int	Not Null	For defining Flag.

Table 5.11: Feedback

CHAPTER:-6 PLANNING AND IMPLEMENTATION

➤ PROJECT PLANNING:-

Project planning is a procedural step in project management, where required documentation is created to ensure successful project completion. Documentation includes all actions required to define, prepare, integrate and coordinate additional plans. The project plan clearly defines how the project is executed, monitored, controlled and closed.

- ✓ Identify objectives
- ✓ Determine information Requirements
- ✓ Analyse System Needs
- ✓ Designing
- ✓ Development
- ✓ Testing Deployment

➤ PROJECT DEVELOPMENT APPROACH :

The Waterfall Model was first Process Model to be introduced. It is also known as a linear-sequential life cycle model. It is simple to understand and use. In a waterfall model, each phase must be completed before the next phase can begin and there is no overlapping in the phases. The waterfall Model illustrates the software development process in a linear sequential flow; hence it is also referred to as a linear-sequential life cycle model. This means that any phase in the development process begins only if the previous phase is complete. In waterfall model phases do not overlap.

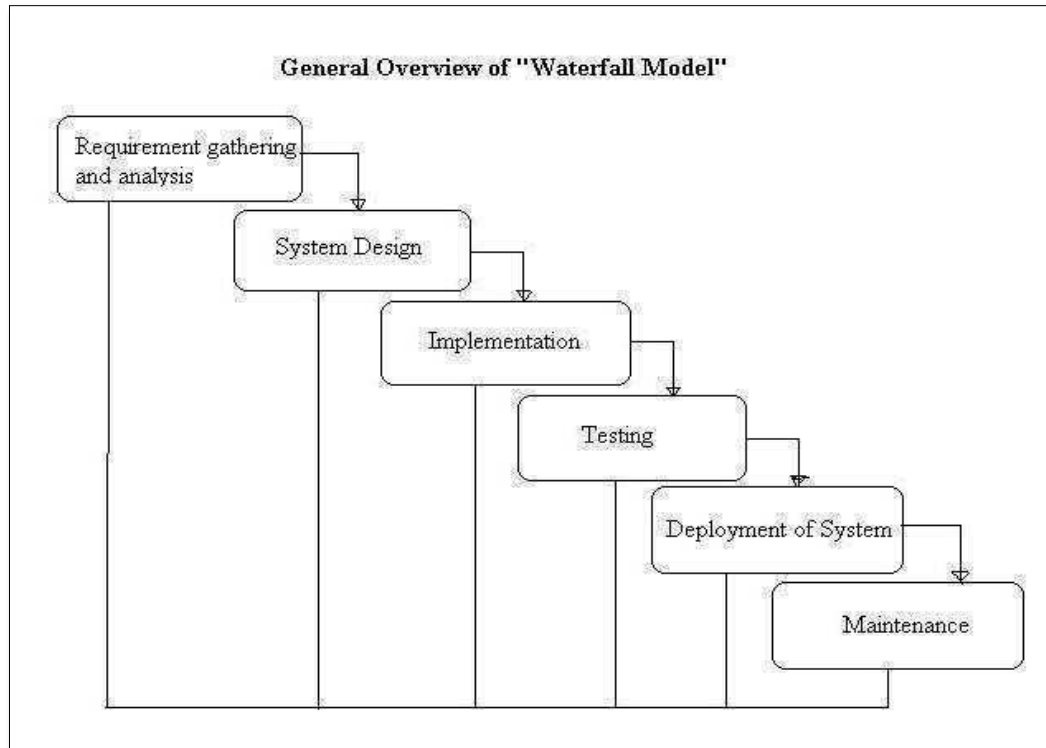


Fig 6.1: Water Fall Model

➤ PROJECT SCHEDULING:-

A project schedule provides a road map for a software project manager.

TimeLine Chart						
Sr. No	Task Name	Duration				
		Jun-17	Jul-17	Aug-17	Sep-17	Oct-17
1	Project Definition Study					
2	Requirement Gathering					
3	System Analysis					
4	Various UML Diagrams					
5	Data Dictionary					
6	Project Planning					

Fig 6.2: TimeLine Chart

CHAPTER:-7 FUTURE ENHANCEMENT

In future We are going to remove maximum limitations of the System. We will also try to reduce the size of the System And We will add new and new functionalities to our system and make it user-friendly and very attractive. We will try to make the application for the system also so that it can be more convenient.

CHAPTER:-8 REFERENCES

Analysis of Project Requirements :-

- For basic requirements and to know the processes we visited our Internal guide.

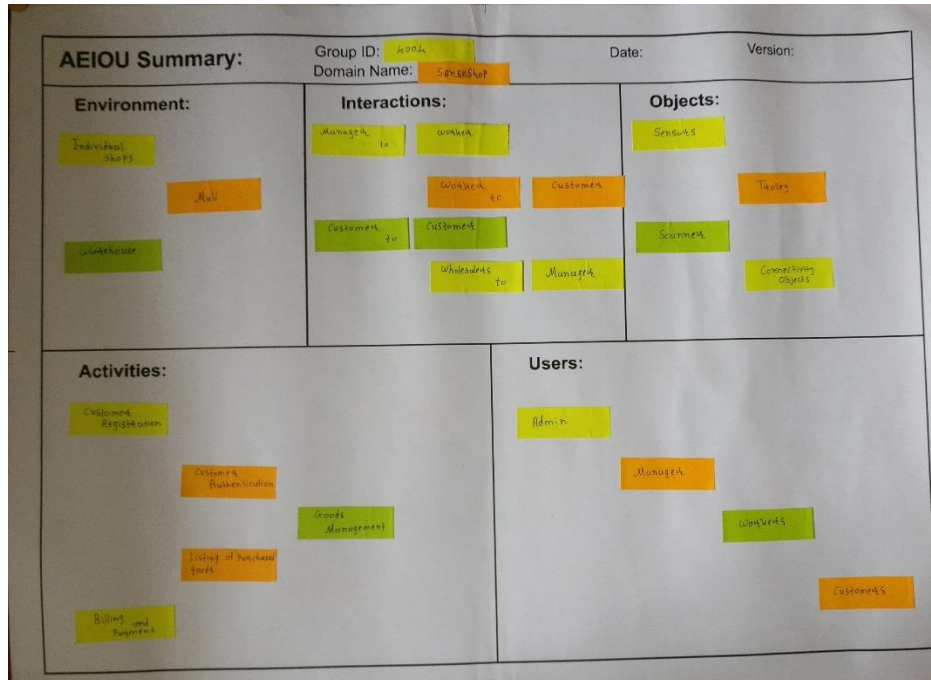
Visited Sites :-

- <http://www.python.org/>
- <http://www.djangoproject.com/>
- <http://www.arduino.cc/>
- <http://www.W3C.com/>
- <http://www.qoura.com/>
- <http://www.youtube.com/>

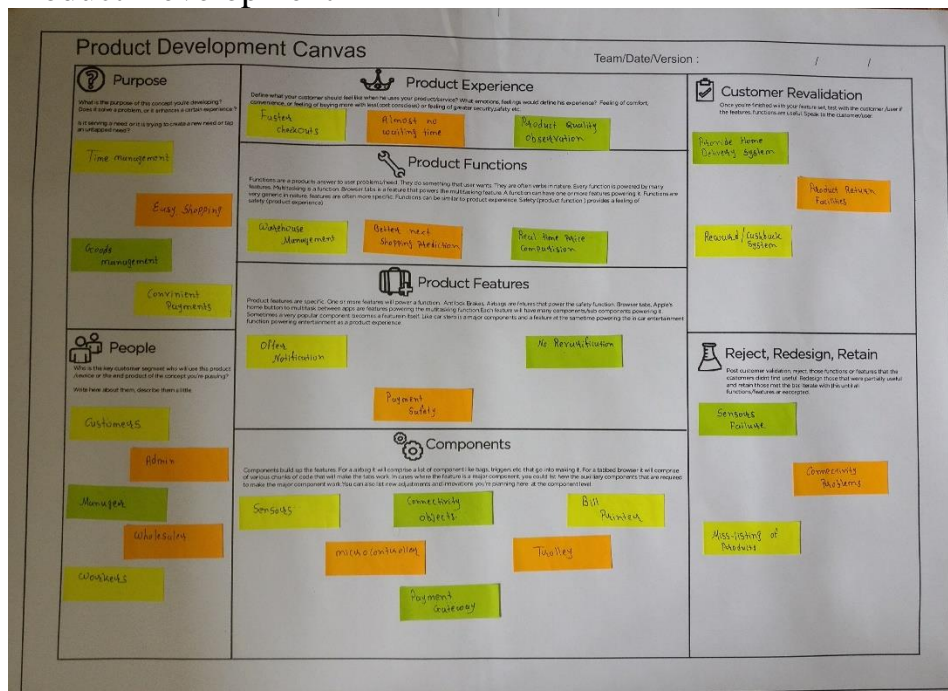
CHAPTER:-9 APPENDIX

9.1 Canvas:-

- AEIOU



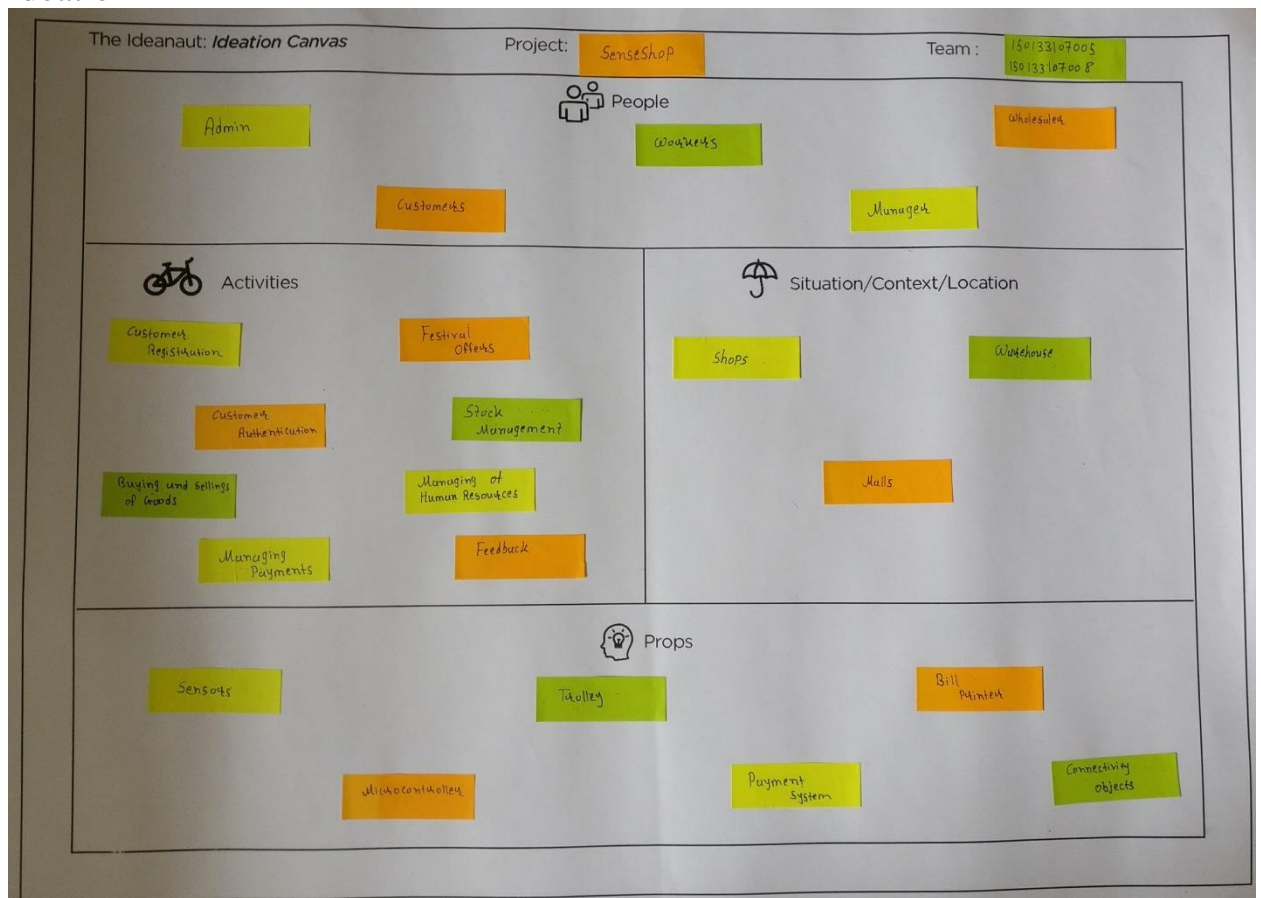
- Product Development



● Empathy

Design For: SenseShop		Design By: 150133107005 150133107008	
Date:		Version:	
USER: Admin Customers Managers Workers		STAKEHOLDERS: Retailers Wholesale	
ACTIVITIES: Customer Registration Customer Authentication Goods Management Listing of Purchased Goods Billing and Payments			
STORY BOARDING HAPPY: Mr. Aditya who is manager of a very big firm so he is always seems to be busy, so after using our system and found it very time saving so it's a happy turning for him and now he is a regular customer of us.			
HAPPY: Mr. Harshad who is a small detail shop owner, after using our system now he has a lot of time to do the extra stuff and now he owns a 2nd shop on the next block and uses our system there also and he's now experiencing the growth in its sales so he's happy.			
SAD: Mr. Aditya who is manager of a very big firm so because of time shortage he always asks his assistant to buy the goods but it's not convenient because he doesn't satisfy with the quality and quantity perfectly he want so at the end he feels bad and sad.			
SAD: Mr. Harshad who is a small detail shop owner, he has to sum and make the bill of products that is in the customers trolley at the end of the day he was so tired so he can't get the time to do the extra activities so he feels bad and sad.			

- Ideation



9.2 Periodic Progress Report(PPR):-

1st PPR

1. What Progress you have made in the Project ?

We are creating a system for shopping shop called as a senseshop. And we all team members are distributed our work into small modules for implementing view etc.

2. What challenge you have faced ?

We faces some challenges like we need different type sensor for different implementation on our shop to automate this system.

3. What support you need ?

We need a proper guidance of our faculties and new technologies to work with it.

4. Which literature you have referred ?

Some books and websites are referred like Books: lot with python lot with Arduino Websites www.quora.com

2nd PPR

1. What Progress you have made in the Project ?

We are thinking to make our centralized system and also thinking for development mobile app which communicate with system directly.

2. What challenge you have faced ?

How to communicate mobile with python web app.

3. What support you need ?

We need proper guidance of our faculty to some extra knowledge for hardware & sensor

4. Which literature you have referred ?

Some books and websites referred like Books Learn python the hard way Python essential reference
Websites www.python-course.eu www.python.com

3rd PPR

1. What Progress you have made in the Project ?

We made a list of total number of different type of user and their work while interacting with the system.

2. What challenge you have faced ?

We have to validate the user

3. What support you need ?

We need proper database or Id verification of the user to validate them

4. Which literature you have referred ?

Some books and websites referred like Books Database system concept Relational database management system Websites www.oracle.com www.mysql.com

4th PPR

1. What Progress you have made in the Project ?

We made a list of total number of different type of user and their work while interacting with the system.

2. What challenge you have faced ?

We have to validate the user

3. What support you need ?

We need proper database or Id verification of the user to validate them

4. Which literature you have referred ?

Some books and websites referred like Books Database system concept Relational database management system Websites www.oracle.com www.mysql.com

9.3 Patent Search and Analysis Report(PSAR):-

1st PSAR

Part - I : PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used : Google Patents
- Web link of the Database : <https://patents.google.com/>
2. Keywords Used for Search : Mall, Sensor, Management
3. Search String Used : Mall management with sensor
4. Number of Results/Hits getting : 4

Part - II : BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

5. Category/Field of Invention :
6. Invention is Related to/Class of Invention : Mall management
- 6a. IPC class of the studied patent : G06Q30/02
7. Title of Invention : Electronic shopping mall
8. Patent No. :
9. Application No. : US10465598
- 9a. Web link of the studied patent : <https://patents.google.com/patent/US20030225630A1/>
10. Date of Filing/Application : 20/06/2003
11. Priority Date :
12. Publication/Journal Number - (Issue No. of Journal in which Patent is published) :
13. Publication Date :
14. First Filled Country :

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
Kazumasa Kakuta	Staas & Halsey llp suite 700 1201 new York avenue/new york / US

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
Fajitsu limited	Kawasaki/japan

18. Applicant for Patent is : Company

Part - III : TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art :

One of the main disadvantages of the malls is drawbacks. These include overcrowding, especially on weekends and holidays. Sometimes it seems that everyone has the same idea and go to the mall. The corridors and crowded stores make shopping very difficult, people often end up forgetting the items they need to buy. Older people with mobility problems may have difficulty passing through the shopping center, due to the breadth of the place.

20. Specific Problem Solved/Objective of Invention :

Faced with heavy discounts from e-commerce, shopping mall owners in major cities are shaping back, going aggressive in the run up to Diwali offering freebies and easy finance options, hoping to win back the footfalls and increase their business by at least 45-50 per cent in the ongoing festive season as compared to similar period last year

21. Brief about Invention :

The present invention relates to an electronic shopping mall configured on a communication network having virtual shops as tenants, which offers and sells products or services to customers in response to the accesses from the customers via the communication network.

22. Key Learning Points :

Developed jointly with the industry to meet the specific needs of shopping centres, the system's key features effectively manage the casual leasing of booths, stalls, media, vending or any other site type.

23. Summary of Invention :

In view of the foregoing, it is an object of the present invention to provide an electronic shopping mall having one or more (typically plural) virtual shops in which customers enjoy shopping including discount negotiations.

24. Number of Claims : 5

25. Patent Status : Granted Patent & In-force Patent

26. How much this invention is related with your IDP/UDP? : 71 to 90%

27. Do you have any idea to do anything around the said invention to improve it? :

We are thinking to make our centralized system and also thinking for development mobile app which communicate with system directly.

2nd PSAR

Part - I : PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used : Google Patents
- Web link of the Database : <https://patents.google.com/>
2. Keywords Used for Search : mall ,sensor,Management,warehouse,trolley
3. Search String Used : warehouse and mall management system with sensors
4. Number of Results/Hits getting : 10

Part - II : BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

5. Category/Field of Invention :
6. Invention is Related to/Class of Invention : integrating an internet preference learning facility into third parties
- 6a. IPC class of the studied patent : G06N99/005
7. Title of Invention : integrating an internet preference learning facility into third parties
8. Patent No. : US20100312650A1
9. Application No. : US12813738
- 9a. Web link of the studied patent : <https://patents.google.com/patent/US20100312650A1>
10. Date of Filing/Application : 06/11/2010
11. Priority Date :
12. Publication/Journal Number - (Issue No. of Journal in which Patent is published) :
13. Publication Date :
14. First Filled Country :

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
Thomas Pinckney Christopher Dixon	brighton

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
HUNCH Inc	Pittsburgh

18. Applicant for Patent is : Company

Part - III : TECHNICAL PART OF PATENTED INVENTION**19. Limitation of Prior Technology/Art :**

Security is the biggest concern when it comes to cloud computing. By leveraging a remote cloud based infrastructure, a company essentially gives away private data and information, things that might be sensitive and confidential. It is then up to the cloud service provider to manage, protect and retain them, thus the provider's reliability is very critical.

20. Specific Problem Solved/Objective of Invention :

In embodiment's of the present invention improved capabilities are described for a computer program product embodied in a computer readable medium that, when executing on one or more computers, helps target responses returned to a user through the use of a computer facility by performing the steps of (1) providing a user preference learning API to a third-party website to determine preferences of a user as related to a market of a third-party, wherein the preference learning API is executing as an extension of the computer facility;

21. Brief about Invention :

The present invention may ask the user 1314 questions 1320 and based on the user's answers the system may offer a decision, such as a recommendation, a diagnosis, a conclusion, advice, and the like. Internally, the system may use machine learning to optimize which questions 1320 to ask and what decision 1310 to make at the end of the process.

22. Key Learning Points :

using in the user preference learning API the third-party information related to the market of the third-party and the preferences of the user as stored in the user preference profile to provide a response back to the user that relates to the query from the user.

23. Summary of Invention :

The present invention may consist of a computing facility, such as a machine learning facility, that may ask a user questions, and based on the user's answers the system may offer a decision, such as a recommendation, a diagnosis, a conclusion, advice, and the like. Internally, the system may use machine learning to optimize which questions to ask and what decision to make at the end of the question and answer dialog.

24. Number of Claims : 21

25. Patent Status : Granted Patent & In-force Patent

26. How much this invention is related with your IDP/UDP? : < 70 %

27. Do you have any idea to do anything around the said invention to improve it? :

make the internet connectivity reliable and sensors to be work fast and reliably even in a failure of a portion in the system.

3rd PSAR

Part - I : PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used : Google Patents
 Web link of the Database : <https://patents.google.com/>
 2. Keywords Used for Search : mall ,sensor,Management,warehouse,trolley
 3. Search String Used : warehouse and mall management system with sensors
 4. Number of Results/Hits getting : 10

Part - II : BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

5. Category/Field of Invention :
 6. Invention is Related to/Class of Invention : Mall management
 6a. IPC class of the studied patent : G07F7/02
 7. Title of Invention : Smart-Cart with RFID scanner
 8. Patent No. : EP1583050A1
 9. Application No. : EP20040009234
 9a. Web link of the studied patent : <https://patents.google.com/patent/EP1583050A1>
 10. Date of Filing/Application : 04/19/2004
 11. Priority Date :
 12. Publication/Journal Number - (Issue No. of Journal in which Patent is published) :
 13. Publication Date :
 14. First Filled Country :

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
Ren co Precisa Instruments AG Bhlr	Moosmattstrasse 32

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
Precisa Instruments AG	Moosmattstrasse 32

18. Applicant for Patent is : Company

Part - III : TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art :

The drawbacks of this method are that it can be used efficiently only in the place of the systems which uses KNN algorithm. Also is less. When the area and the number of objects involved increases, it results in more complex LDTI algorithm. The drawbacks of this method are that it is not cost efficient and becomes impractical to perform it on a large scale. The drawbacks of this method are that all the information has to be pre-defined in the system and since the whole system is automated, even a small error will cause backlog of the whole system.

20. Specific Problem Solved/Objective of Invention :

There is a lot of manual operation involved in the existing system. The existing system specializes more in tracking and identifying the shopping cart as they move, which might be useful for the shop's management but not for the customer. It also does nothing with regard to reducing the average time the customer spends in the market and also does not reduce the billing time in anyway. All the additional storage of, tracking the customer's path in the market along with his time taken add unnecessary storage in the system with equivalently complex search algorithm.

21. Brief about Invention :

RFID generally encompasses any wireless (or partially wireless) communication that allows for remote retrieval of information associated with a particular commodity, product, component, or other item. This project put forwards a unique solution to reduce the average time a customer spends at a supermarket. The product with the appropriate tag is read by the reader on the cart and the product's details are displayed on the LCD screen placed on the trolley. As the customer puts each product in the trolley, it gets detected. The information of these products along with the bill amount are displayed on the LCD display.

22. Key Learning Points :

List of Generation provided by guided shopping. Smart shelves. On screen advertising with isle location tracking.

23. Summary of Invention :

As described in these articles, in retail stores and other environments, the inability to rapidly locate items is a common problem. Retailers may appear to be out of stock for product, where in fact the product may be available in the back of the store or may have been placed on the wrong shelf. RFID (radio frequency identification) technology has been proposed as a means to improve the ability to track inventory and to locate objects. In particular, the use of RFID tracked objects coupled with smart shelves that include RFID readers has been proposed as a means of efficiently tracking the presence of products in the retail environment. However, the smart shelves that have been demonstrated in public have employed numerous expensive RFID readers adapted to read sections of a single shelf, and have required the user of expensive and bulky co-axial cable for each of the readers.

24. Number of Claims : 23

25. Patent Status : Granted Patent & In-force Patent

26. How much this invention is related with your IDP/UDP? : 71 to 90%

27. Do you have any idea to do anything around the said invention to improve it? :

we need a proper solution for the range of the RFID.

4th PSAR

Part - I : PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used : Google Patents
 Web link of the Database : <https://patents.google.com/>
 2. Keywords Used for Search : Mail, Sensor, Management, Warehouse, trolley
 3. Search String Used : Mail management with sensor
 4. Number of Results/Hits getting : 11

Part - II : BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

5. Category/Field of Invention :
 6. Invention is Related to/Class of Invention : Mail management
 6a. IPC class of the studied patent : G07F7/03
 7. Title of Invention : Intelligent trolley
 8. Patent No. : CN202225891U
 9. Application No. : 201120175932
 9a. Web link of the studied patent : <https://patents.google.com/patent/CN202225891U>
 10. Date of Filing/Application : 05/27/2011
 11. Priority Date :
 12. Publication/Journal Number - (Issue No. of Journal in which Patent is published) :
 13. Publication Date :
 14. First Filled Country :

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
YAN Hairong	China

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
YAN Hairong ZHANG Chuan QU Liming CHEN Lianshen	China

18. Applicant for Patent is : Company

Part - III : TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art :

The objective of this projects is to improve the speed of purchase by using RFID. This projects is designed to use the RFID based security system application in the shopping trolley.

This projects is used in shopping complex for purchase the products. In this projects RFID card is used as security access for product. If the product is put in to the trolley means it will shows the amount and also the total amount. But in this projects RFID card is used for accessing the products. So this projects imetc

20. Specific Problem Solved/Objective of Invention :

Smart carts includes a intelligent sensing, automatically follow the trolley function, binding Zigbee wireless positioning module, and a global positioning system sensor monitoring function, belonging to the field of automatic control and embedded applications.

21. Brief about Invention :

There are also devices using electronic tags to follow the shopping trolley to implement this process, but there are certain risks electronic tag, if the label is missing, the car will follow outsiders away, or follow the target can not be found. Exception, there are electronic tags to follow the distance problem, if you are using active RFID tags, that a user must first handheld device with a power supply, also to shopping inconvenience.

22. Key Learning Points :

Smart carts includes a intelligent sensing, automatically follow the trolley function, binding Zigbee wireless positioning module, and a global positioning system sensor monitoring function, belonging to the field of automatic control and embedded applications.

23. Summary of Invention :

The embedded system is a control, or the auxiliary means for monitoring the operation of equipment and machinery, mainstream ARM chip, FPGA chip, and a digital signal processor (DSP) chip as the main operation controller, environmental data using the plurality of sets of sensors the acquisition and analysis, combined with the application of wireless communication technology to achieve intelligent perception of the environment, automatically adapt.

24. Number of Claims : 1

25. Patent Status : Granted Patent & In-force Patent

26. How much this invention is related with your IDP/UDP? : < 70 %

27. Do you have any idea to do anything around the said invention to improve it? :

Improve the range of RFID device that are connected in trolley

5th PSAR

Part - I : PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used : Google Patents
 Web link of the Database : <https://patents.google.com/>
 2. Keywords Used for Search : mall,mall, sensor,Management,warehouse,trolley
 3. Search String Used : warehouse and mall management system with sensor
 4. Number of Results/Hits getting : 12

Part - II : BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

5. Category/Field of Invention :
 6. Invention is Related to/Class of Invention : mall management
 6a. IPC class of the studied patent : G06K19/0723
 7. Title of Invention : Combination bar code scanner/RFID circuit
 8. Patent No. : US8264106B1
 9. Application No. : US09472565
 9a. Web link of the studied patent : <https://patents.google.com/patent/US8264106B1>
 10. Date of Filing/Application : 12/27/1999
 11. Priority Date :
 12. Publication/Journal Number - (Issue No. of Journal in which Patent is published) :
 13. Publication Date :
 14. First Filled Country :

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
Raj Bridgelall	Ronkonkoma/NY/US

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
Symbol Technologies LLC	Holtaviely/NY/US

18. Applicant for Patent is : Company

Part - III : TECHNICAL PART OF PATENTED INVENTION**19. Limitation of Prior Technology/Art :**

Barcode scanners need a direct line of sight to the barcode to be able to read.

In order to read the barcode, the barcode scanner needs to be quite close; around no more than 15ft.

Barcodes have no read/write capabilities; they do not contain any added information such as expiry date etc. They only contain the manufacturer and product.

20. Specific Problem Solved/Objective of Invention :

wherein the processing unit is coupled to receive a data acquisition command, and, in response to the data acquisition command, to instruct at least one of the bar code scanner circuit and the RFID circuit to provide the interrogation signal, to receive the data signal, and to transmit the data signal; and

a data acquisition circuit which is adapted to receive the data signal from at least one of the bar code scanner circuit and the RFID circuit, to process the data signal into an analog signal and then into the digital signal, and to transmit the digital signal to the processing unit

21. Brief about Invention :

A circuit that combines the functionality of a bar code scanner and an RFID circuit is provided. This circuit uses certain functional blocks for processing both the bar code signals and the RFID signals. As a result, the space and power consumed by the circuit are substantially reduced such that the circuit can be formed to fit a free-standing, hand-held reader device. The circuit also may use a single interface from a hand-held device to central processing unit to process digital signals from both the bar code scanner and the RFID circuit. In addition, in one embodiment, the circuit may also simultaneously process bar code signals and RFID signals.

22. Key Learning Points :

. The image capture/RFID circuit, wherein a scanning field emitted by a image capture portion of the image capture/RFID circuit is substantially equivalent in directional orientation to an RF field emitted by an RFID portion of the image capture/RFID circuit.

23. Summary of Invention :

A bar code scanner/RFID circuit for use in a free-standing reader device and that provides an interrogation signal to an identification tag (e.g., either a bar code tag or an RF tag, or a combination of both), and receiving a data signal from an identification tag, is provided. The circuit can preferably be formed to fit accepted sizes for a laser scan engine available in the industry. The circuit includes a first processing unit, a bar code scanner circuit, an RFID circuit, a second processing circuit and a data acquisition circuit.

The second processing circuit is coupled to receive a data acquisition command from the first processing unit, and, in response to the data acquisition command, to instruct either the bar code scanner circuit or the RFID circuit, or both, to provide an interrogation signal to the identification tag and to receive the data signal.

24. Number of Claims : 27

25. Patent Status : Other (Active)

26. How much this invention is related with your IDP/UDP? : < 70 %

27. Do you have any idea to do anything around the said invention to improve it? :

improve the range of bar code scanner

Plagiarism Report:-

81% Unique

Total 19644 chars (2000 limit exceeded) , 327 words, 16 unique sentence(s).

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About 15,499,525 results	-1 INTRODUCTION	poc-ngpio.iges.org.jp youtube.com freedbed.org www.epfl.ch vemo.at dorm.uscga.mil cap.edu zoroah.com blacklearningbook.org sparknotes.com
About 1 results	1 PROJECT PROFILE	puship.com
Unique	-Project Title SenseShopProject Type Web ApplicationObjective To Provide Easy, Fast and seamless retail shopping experience	-
About 5 results	*Front End Python/WebBack End Python/DianqoInstitute Name Government engineering college, GandhinagarInternal Guide Professor	facultyplus.com gcsa28.ac.in iges.ac.in maheshgavali.in geckitaki.ac.in
Unique	ChaudhryDevelopment Team Chauhan Harsh Gandha Bhavin	-
Unique	2 OBJECTIVE OF WORK	-
About 4 results	3 SCOPE OF WORK	viragport.com idico.co.za idico.co.za us.ac.za
About 480,999,190 results	- Customers	investopedia.com en.wikipedia.org businessdictionary.com merriam-webster.com dictionary.com thesaurus.com gendtek.com helpscout.net helpscout.net dictionary.cambridge.org
Unique	The scope of this solution for customers is any person who is involved in Purchase of any everyday things from a retail shop	-
About 141,058 results	Retail Shop Owners	cityofhouston.gov smallbiztrends.com newsworldindia.com gdn.com gdn.com sauria.com pagesnewsworldindia.com.au newindianexpress.com wiproconsumersupport.com sauresecurity.com
Unique	The scope of this solution for merchants who is having a shop and want to maintain it effortlessly	-
Unique	4 TECHNOLOGY USED	-
About 10,699,621 results	- Front-End	en.wikipedia.org en.wikipedia.org en.wikipedia.org dunlight.com courses.org whistle.techtarget.com freemartian.com frontendhandbook.com frontendlift.com uipacity.com
About 3 results	- Python/Web Back-End	atp.org medium.com workintech.co
About 136 results	- Python/Dianqo1	stackoverflow.com stackoverflow.com stackoverflow.com stackoverflow.com i.unl.wisc.edu community.webfaction.com community.webfaction.com blog.cdn.net stitchday.org sagremintaut.com
Unique	5 COMPARISONS WITH EXISTING SYSTEM	-
Unique	- In the current flow when a person wants to buy a things from a Retail Shop they need to scan and verify the purchase for billing by a merchant	-
Unique	Sometimes there can be huge queues for the scanning and billing which is a time consuming process	-
Unique	Same for the merchants they have to verify and needs to track the stock of a particular product	-
Unique	It also tracks the current Stock of the particular product form the shop as well as Warehouse	-
About 105,999,388 results	CHAPTER	chapter.org chapter.org chapter.org en.wikipedia.org chapter-living.com dictionary.com merriam-webster.com sparknotes.com sparknotes.com investopedia.com
About 3 results	-2 PROJECT MANAGEMENT2	slideshare.net slideshare.net dk.linkedin.com
About 622 results	1 MILESTONES AND DELIVERABLES	gpc-frsa-dot.gov focusenergy.com fracturedreservoirs.com govtkearichemie.nl indtwe.htmr.org gcs.euroopa.eu climseerx.int psu.edu energy.gov gurlister.com nmap.int.gov
About 383 results	- Secure and Reliable payment method	essaysandemand.com support.worldpay.com addons.prestashop.com onlinecashonports.com primelval.nl securecashclients.com businesswire.com today.com huffpost.com au psaffinance.ch
Unique	- Set triggers for low stock	-
About 1 results	- Tracks the previous orders	Mikani.tv
Unique	- Customers can file the complaints	-
Unique	- Precision tracking of sales	-
Unique	- This solution is for the retail shops to give a generalized and best solution for the easy and cost-effective automation for many customers who don't want to waste time for shopping	-
Unique	In proposed system when the person wants to buy a things form a Retail shop they don't need to scan and verify the purchase form billing by a merchant because all the	-