

A project report on

**DYNAMIC COMPUTER ACCESSORIES SYSTEM**

Submitted in partial fulfillment of the requirement  
For the award of the degree

**MASTER OF COMPUTER APPLICATIONS**  
Of



Visvesvaraya Technological University  
Belgaum, Karnataka

By

**PRAVEEN KUMAR V**  
**1CR18MCA89**



**CMR INSTITUTE OF TECHNOLOGY**  
**132, IT Park Road, Kundalahalli, Bangalore-560037**  
**2019-2020**

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Under the guidance of

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Associate Professor,  
MCA Department,  
CMR Institute of Technology,  
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**External Guide**

**Ms. Keerthana S**

Technical Manager,  
TechCiti Technologies Pvt. Ltd,  
Bangalore.



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**132, IT Park Road, Kundalahalli, Bangalore-560037**

**2019-2020**

**CMR INSTITUTE OF TECHNOLOGY**  
**Department of Master of Computer Applications**  
**Bangalore - 560037**



***CERTIFICATE***

*This is to certify that the project work entitled*

**DYNAMIC COMPUTER ACCESSORIES SYSTEM**

*Submitted in partial fulfilment of the requirement  
for the award of the degree of  
Master of Computer Applications of the  
Visvesvaraya Technological University, Belgaum, Karnataka  
Bonafide work carried out by*

**PRAVEEN KUMAR V**  
**1CR18MCA89**

*During the academic year 2019-2020.*

\_\_\_\_\_  
Signature of the Guide  
**Dr. Anu Manchanda**  
Associate Professor, MCA

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Signature of the HOD  
**Ms.Gomathi.T**  
HOD, MCA

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Signature of the Principal  
**Dr. Sanjay Jain**  
PRINCIPAL, CMRIT

**External Viva**

**Name of the Examiners**

**Signature with date**

- 1.
- 2.



## TechCiti Technologies Private Limited.

CIN: U72200KA2013PTC068461

D-U-N-S No. : 87 40 48298

No. 22 23 24 25/101, BNR Complex, J.P. Nagar, Bengaluru, Karnataka 560078.

Landline: 080 6841 1700 Email: [support@techciti.in](mailto:support@techciti.in) Website: [www.techciti.in](http://www.techciti.in)

Ref.No. TIPL/2019-2020/HRD/1602

Date: 09<sup>th</sup> June, 2020

TO WHOMSOEVER IT MAY CONCERN

We would like to inform you that Mr. Praveen Kumar V (ICR18MCA89) has successfully completed his project with our company, he has been working on the project title “Dynamic Computer Accessories System” from 10.01.2020 to 03.06.2020

We have found him to be a self –starter who is motivated, duty-bound and hardworking. He has worked sincerely on his assignments and his performance is at par excellence.

We wish him all the best for his future endeavors.



Manager

Human Resources Department  
TechCiti Technologies Private Limited.

## DECLARATION

I, **PRAVEEN KUMAR V**, Student of 6<sup>th</sup> MCA, **CMR Institute of Technology**, bearing USN **1CR18MCA89** hereby declare that the project entitled “**DYNAMIC COMPUTER ACCESSORIES SYSTEM**” has been carried out by me under the supervision of External guide **Ms. Keerthana S**, Technical Manager at TechCiti Technologies Pvt. Ltd and under the guidance of internal guide **Dr. Anu Manchanda, Associate Professor, Dept. of Master of Computer Applications** and submitted in the partial fulfillment of the requirements for the award of the Degree of Master of Computer Applications by the **Visvesvaraya Technological University** during the academic year 2019-2020. The report has not been submitted to any other University or Institute for the award of any degree or certificate.

Place: Bangalore

Date:

PRAVEEN KUMAR V

(1CR18MCA89)

## **ACKNOWLEDGEMENT**

I would like thank to all those who are involved in this endeavour for their kind cooperation for its successful completion. At the outset, I wish to express my sincere gratitude to all those people who have helped me to complete this project in an efficient manner.

I offer my special thanks to my external project guide Ms. Keerthana S, Technical Manager, TechCiti Technologies Pvt. Ltd, Bangalore, and to my Internal Project guide Dr. Anu Manchanda, Associate Professor, Department of MCA, CMRIT, Bangalore without whose help and support throughout this project would not have been this success.

I am thankful to Dr. SANJAY JAIN, Principal, CMRIT, and Bangalore for his kind support in all respect during my study. I would like to thank Ms. Keerthana S, Technical Manager, TechCiti Technologies Pvt. Ltd, Bangalore who gave opportunity to do this Internship at an extreme organization Most of all and more than ever, I would like to thanks my family members for their warmness, support, encouragement, kindness and patience. I am really thankful to all my friends who always advised and motivated me throughout the course.

**PRAVEEN KUMAR V**  
**(1CR18MCA89)**

## Project Report

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Xu, Lingyan, Feixiang Chen, Shaoliang Ni, Ling Wang, Chao Wei, Bowen Gong, and Bin Liu. "", International Conference on Image Processing and Pattern Recognition in Industrial Engineering, 2010.

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# CHAPTER 1

## INTRODUCTION

### 1.1 PROJECT DESCRIPTION

The authorized employees of a hardware store uploads all details about each hardware components in to the server such as product id, product name, dealer name, configuration details, and rate and tax details also. The customers who want to access this resource should be registered and get login credential.

In registration process the customer type such as single customer or retailer is mandatory. The concern fixes the rate and tax for the products based on the customer type. This information is retrieved and used for billing module.

In a billing section, the sold product details, no of items sold, rate of the product, concession amount based on the customer type and total bill amount details are stored to a server and an invoice also generated. The authorized administrator view the customer details, product stock information and also able to view the report of the products.

In this report the frequently sold company products are highlighted and which customers buy many products are also highlighted. Based on this report the admin balance the stock, maintain customer relationship such as give offer, rate reduction for a valuable customer.

This project “Dynamic Computer Accessories System” is form a proper network among the hardware store, customer and retailers. The store admin maintain all accessories information such as product name, company detail, specification information and price of the product for single customer and retailers. The administrator able to view the report on which company products are sales frequently and which retailers purchase many items. Based on this report the admin fix the offer rate for the regular customer.

The authorized customers also able to view new product details and offer details also in their account. The store comprises of differed equipment classes including hard-circles, screens, Disk drives, console, mouse and different equipment items. Clients may peruse for different classes of equipment. At that point they'll choose wanted items to their wheel barrow. The shopping basket is refreshed as needs be.

## **1.2 COMPANY PROFILE**

### **TechCiti Technologies Private Limited**

#### **VISION**

Our vision is to empower individuals and associations understand their latent capacity reevaluating their commitment in characterizing the future utilizing - innovation.

#### **MISSION**

To accomplish the main situation as a recognized and supreme start to finish mechanical framework and specialist organization.

#### **VALUES**

**Trust :-**Among Our Employees, Vendors & Customers

**Value of Money :-**Providing Need Based Cost Effective Solutions to Our Customers.

#### **ABOUT US**

TechCiti is a huge far reaching data innovation administrations and arrangements stage that carefully changes business activities, improves client commitment and enlarges operational effectiveness for its clients everywhere throughout the world. TechCiti offers an integrated portfolio of products, solutions and services. It serves in excess of 1500 clients extending from Fortune 500 organizations to developing new businesses. Techciti Technologies has evolved as one of the leading Managed Service Provider (MSP's) in APAC region. TechCiti gets its quality from its solid administration group concentrated on rousing a situation of enterprising society leaked in conveying excellent incentive to the clients.

The company network portfolio consists two companies "TechCiti Technologies Private Limited" and "TechCiti Software Consulting Private Limited ". TechCiti Technologies

Private Limited being the parent company and TechCiti Software Consulting Private Limited being the deemed subsidiary of TechCiti Technologies Private Limited.

Through a very much characterized advancement, backing and quality system, TechCiti counsels organizations on their innovation guide and actualizes, underpins and keeps up business-basic applications and the fundamental foundation. The organization brings along top to bottom aptitude and vigorous involvement with IT Infrastructure Management, Digital Experience Management, Digital Networking, Automation solutions, Cloud services, performance management, Cloud Security Solutions, Global Network Software Solutions and application development.

## Alliances And Partnerships

Our collusions have assumed a basic job in our drive for environment based development. Our administration contributions and arrangements across industry verticals are fortified by partnerships with worldwide innovation sellers, clients, and specialty arrangement suppliers.



## Company Information

Company Identification No. : U72200KA2013PTC068461

•D-U-N-S No. : 87 40 48298

•MSME No. : 290202103461

•GST No. : 29AAECT5834G1Z3

•Registered Company Address: # No. 22,23,24,25/101/03, BNR Complex, JP Nagar-7th Phase, Bangalore, Pin -560078.

•Board Line: 080 2698 1300

•For Sales Enquiries: 080 2698 1300, Exton's. 1301 -1308

•For Finance: 080 2698 1300, Exton's. 1310 -1314

•Email Id: support@techciti.in

•Website: www.techciti.in

## **CHAPTER 2**

### **LITRATURE SURVEY**

#### **2.1 EXISTING AND PROPOSED SYSTEM**

It is to fill in as a choice record. It has three inquiries to reply.

Since, this framework is manual all the work is finished in papers and ink by hand so it's much exorbitant and hard to utilize and to work and it is additionally tedious.

So our robotized mechanized PC shop framework is a lot of plausible, in cost, time, and endeavors as contrast with the past manual framework.

It is monetarily plausible, it'll just require one administrator to work the framework, who is at risk for entering the data into the database by means of an interface gave to him, who can likewise ready to show all the information in even structure so to give data with respect to the items that is bought or that is offer to the client, since that the whole framework ought to be worked by just a single individual.

It is in fact achievable, since the entire framework is planned utilizing the innovations like C++ and document taking care of which is been utilized. It utilizes the most recent equipment advances so natural to work.

It is Behavioral plausible, since the framework is giving an alluring interface to the administrator/end client, so he feel exceptionally simple to figure onto it. Reaction to administrator/end client is amazingly quick and great. Since, as we referenced over that it requires significantly less measure of cost, it utilizes PC work so it's in the blink of an eye to work and it's simple for client to deal with it.

##### **2.1.1 EXISTING SYSTEM:**

In an existing system a shop owner used to manage all his sales and accounts on paper.

As we as a whole realize the manual handling is kind of dull, tedious, less precise when contrasted with electronic preparing. Clearly this framework isn't is special case advisor experiencing all the above issues.

1. Tedious.
2. It is monotonous.
3. All data isn't put independently.
4. Parcel of desk work.

5. Slow information handling.
6. Not easy to use condition.
7. it's hard to establish records due document the executive framework.

### **2.1.2 PROPOSED SYSTEM:**

This objective of the proposed system is to computerize all manual work related computer accessories product inventory and keep track of all purchased product information and keep records of all the transaction made in the sun power system. Making it easy to view and update stock details and sales details. To store the information of the customer and to make it easy to update the information of the customer.

In new automated framework to give these offices.

1. Physically framework changes into modernized framework.
2. Benevolent UI.
3. Efficient.
4. Spare desk work.
5. Give office of various sort of request.
6. Arranged information.
7. Information's are effectively agreeable

### **2.2 FEASIBILITY STUDY**

The possibility of the undertaking is investigated during this stage and strategic plan is advanced with a truly broad arrangement for the task and a couple of quotes. The proposed system is according to the understanding of the importance of admin people and customer is liable to the government legal issues. The development of this system is legally feasible

Three key contemplations required inside the plausibility investigation are

- TECHNICAL FEASIBILITY
- ECONOMIC FEASIBILITY
- OPERATIONAL FEASIBILITY

**TECHNICAL FEASIBILITY:**

The proposed system is entirely Python Django web framework based technology and it is high level web framework. Using this Django platform we developed the Design and virtual committee it is used to interact with all the employees with different domain. Using this software admin can manage all the customer details regarding employees.

**ECONOMIC FEASIBILITY:**

The proposed system is very useful for banking person to get the employee details who all are sharing all the details we can trace easily. As well as it is useful for admin to announce if any important events will going to happen means..It is very efficient way to interact all the employees.

**OPERATIONAL FEASIBILITY:**

The proposed system is scalable and it provides data protection. And it makes all employee to interact with others. Hence the development of gold pledging software is operationally feasible.

**2.1 TOOLS & TECHNOLOGIES USED****HTML**

Html is the Hyper Text Markup Language it is used for creation of websites or web pages. For creation of website/web pages we are using Cascading Style Sheet(CSS) it is used to create styles for your web pages like font, color, animation and Java script it is used for validation purpose.

Web browser get Html file from a web server and we can see the website page in any type of browsers. HTML describes the structure of a web page and it is the tag based language.

- HTML describes the structure of Web pages using Markup
- HTML elements are the building blocks of HTML pages
- HTML elements are represented by tags

- HTML tags like heading, style, table, form and so on.
- Browsers do not display the HTML tags, but use them to render the content of the page.

## CSS

CSS is used for while creating webpage adding style in that in a simple and easiest way. CSS explanation "Cascading Style Sheet". Cascading Style Sheets, referred to as CSS, it is simple style based language to make website attractive.

## Bootstrap 4

Bootstrap is an open source framework used to develop the responsive web applications or responsive designs. Responsive means application should be runs on smaller screens like mobile phones and tablets. Every element of the HTML document get stacked when the page get smaller or minimized. By default bootstrap takes 12 columns of width with equal separation of the columns that means every column having same size. But you can alter the default values and you can make layouts, design according to your requirements using `<span>` tag. Bootstrap provide grid system for all kind of devices which can help to run the app on every devices. Further it provides some stylish buttons, forms, tables and so on. Bootstrap 4 is the newest version with some additional features compare to previous versions. In this project bootstrap 4 is used for the front development along with the django framework.

## Information Analytics

Information investigation is the study of breaking down crude information so as to make decisions about that data. A significant number of the strategies and procedures of information investigation have been robotized into mechanical procedures and calculations that work over crude information for human utilization. Information examination procedures can uncover patterns and measurements that would somehow or another be lost in the mass of data. This data would then be able to be utilized to streamline procedures to expand the general effectiveness of a business or framework.

Information examination is separated into four essential sorts.

- Descriptive examination portrays what has occurred over a given timeframe. Have the quantity of perspectives gone up? Are deals more grounded for the current month than last?
- Diagnostic investigation concentrates more on why something occurred.



This includes increasingly different information inputs and a touch of conjecturing. Did the climate influence lager deals? Did that most recent promoting effort sway deals?

- Predictive examination moves to what is likely going to occur in the close to term. What befell deals the last time we had a blistering summer? What number of climate models anticipate a sweltering summer this year?
- Prescriptive investigation recommends a game-plan. In the event that the probability of a blistering summer is estimated as a normal of these five climate models is above 58%, we should add a night move to the distillery and lease an extra tank to build yield

## NumPy

NumPy is the library for the python language which provide arrays and matrices for the storing the large data. It provides and support high-level and more mathematical functions which works on these numpy arrays and matrices.

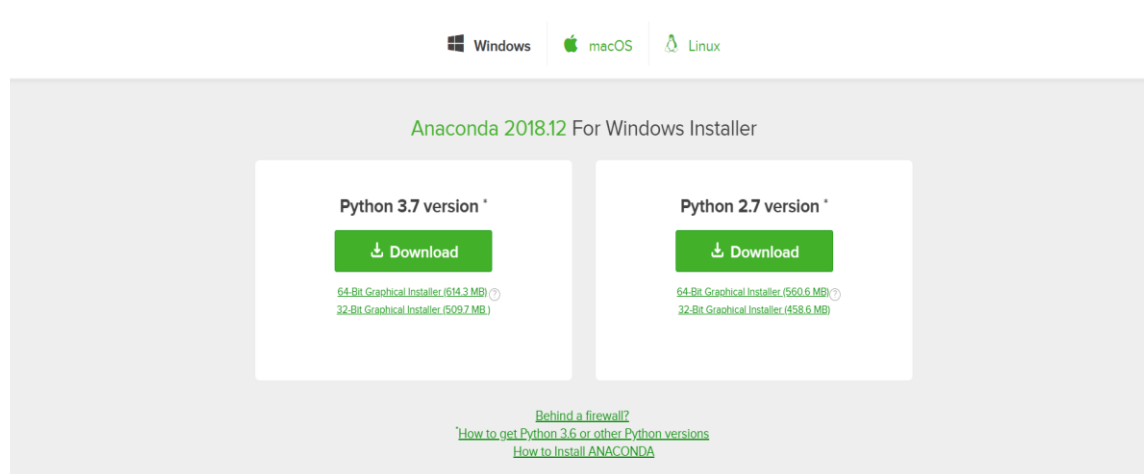
## Pandas

Pandas is the library for the python language which is used for data manipulation and analysis of data. It provides some data structures and operations for the manipulation and analysis.

## STEPS TO INSTALL PYTHON USING ANACONDA DISTRIBUTION

### 1. Downloading the Python installer

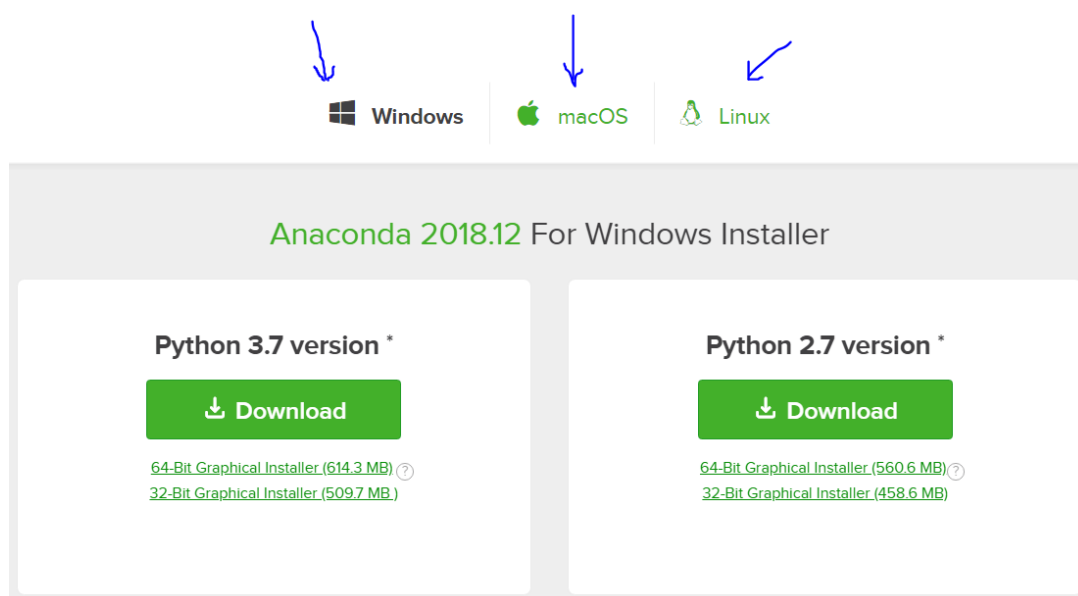
To download the free Anaconda Python distribution , please visit Anaconda distribution download page and scroll , till you see below content



You will be downloading the Python 3 version (any version 3.5 or later is good). Do not download Python 2.7 version, as it is old and will not be supported by python community in future.

**NOTE:** the installer we will be downloading and installing is larger than the average file because it contains Python, associated packages/libraries and some other toys. It may take 15-20 minutes in total to download and install.

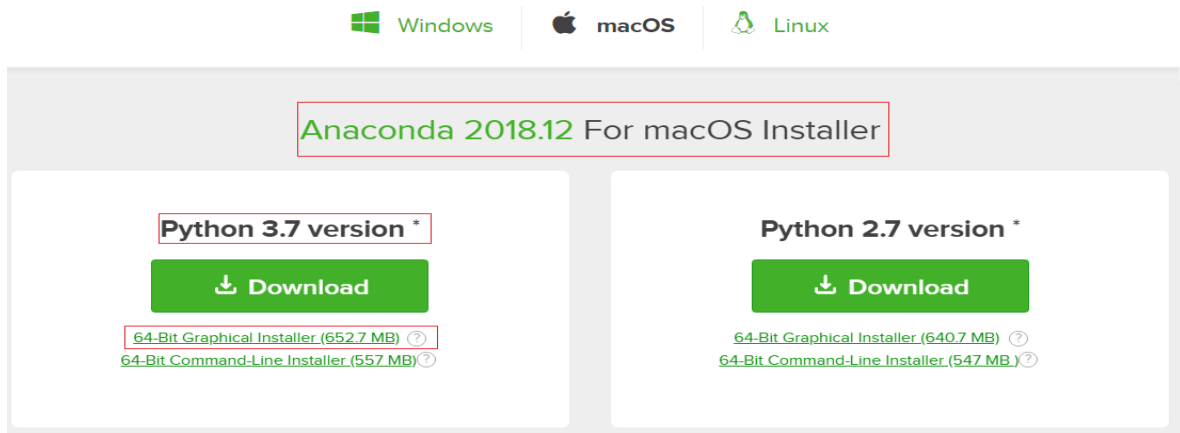
2. Choose installer as per your Operating System (Windows, macOS, Linux). We are going to choose windows os.



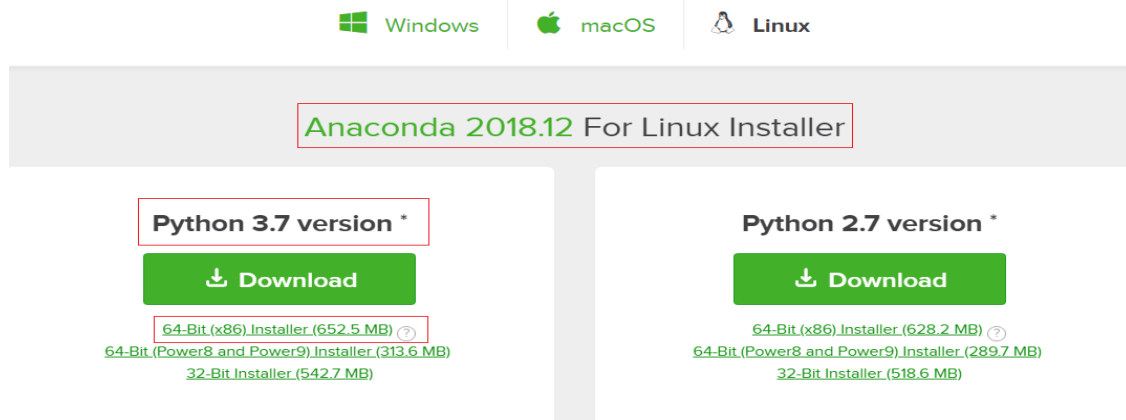
**3. Windows Operating System:** Once you scroll to “Anaconda for Windows” section. Look in the column for Python 3.7 version, there are two versions of the installer, **64-bit** and **32-bit**. If you are running 64-bit windows make sure to download 64-bit installer and if you are using 32-bit windows make sure to download 32-bit installer. To know which version of windows you are running follow instructions mentioned on this page.



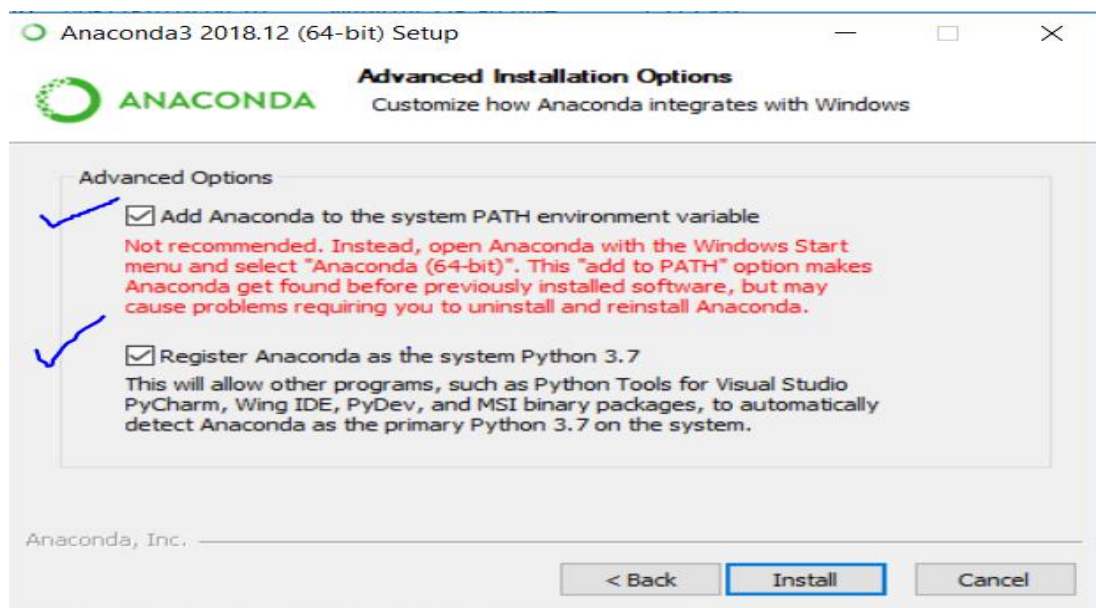
**4. Macintosh Operating System:** Once you scroll to “Anaconda for mac OS” section. There is only one version of the installer here the 64-bit version.



**5. Linux Operating System:** Once you scroll to “Anaconda for Linux” section. Look in the column for Python 3.7 version, there are two versions of the installer, **64-bit** and **32-bit**. If you are running 64-bit Linux make sure to download 64-bit installer and if you are using 32-bit Linux make sure to download 32-bit installer. To know which version of Linux you are running please read this page.



**6. Installing Python:** Once you download installer, double click on **.exe(Windows)** file and **.pkg (Mac)** file and follow the instructions on the screen, till you get the below pop-up. Please accept both the options

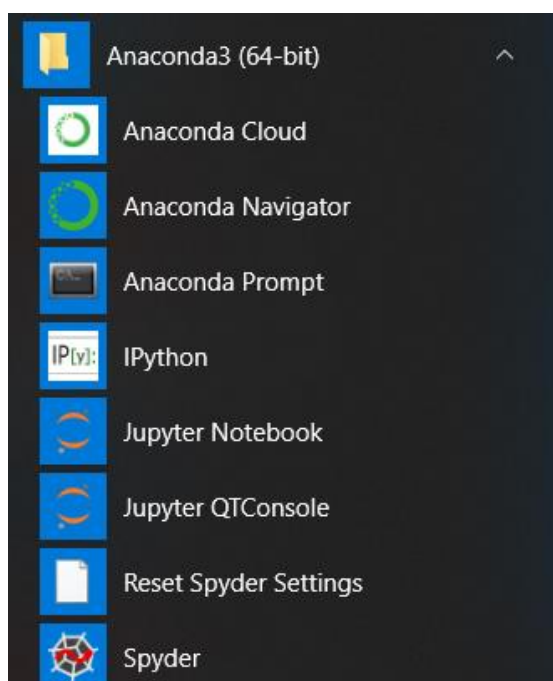


7. The installation will take about 15-20 minutes. Click Finish to close the window when done.

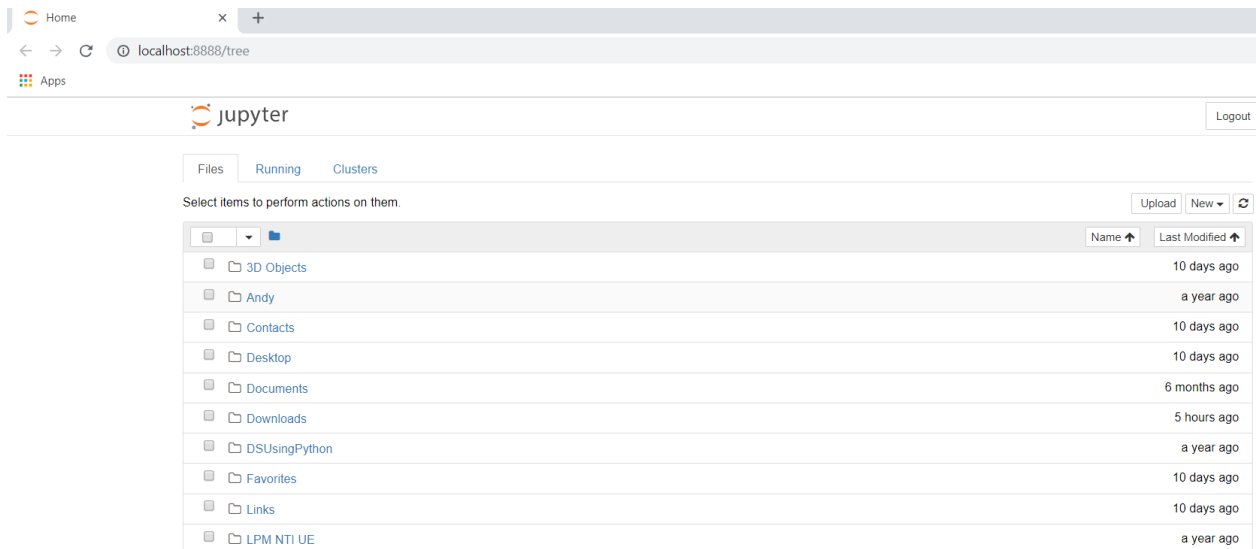
## JUPYTER NOTEBOOK AND SPYDER

### 1. Launching Jupyter nb:

Go to Start in Windows and search for **Anaconda3 (64-bit)**, expand the folder and click on **Jupyter Notebook**



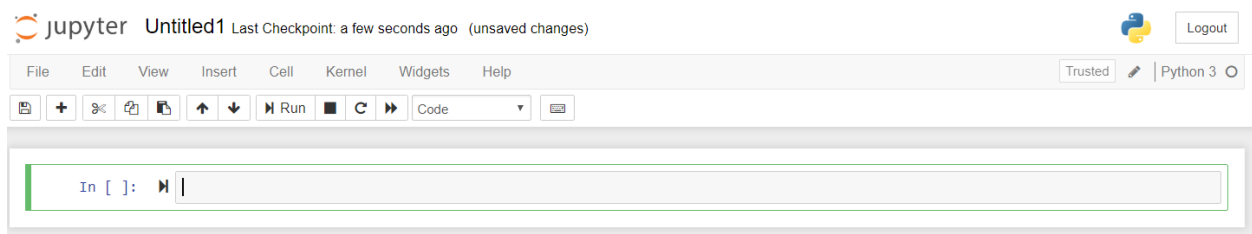
Jupyter will open in browser as follows:



Files Running Clusters

Select items to perform actions on them.


You will get below window in browser



## Launching Jupyter NB from Command prompt

You can also launch jupyter nb from a specific folder on your system. You just have to use the command jupyter notebook from windows command prompt. Please follow the below steps:

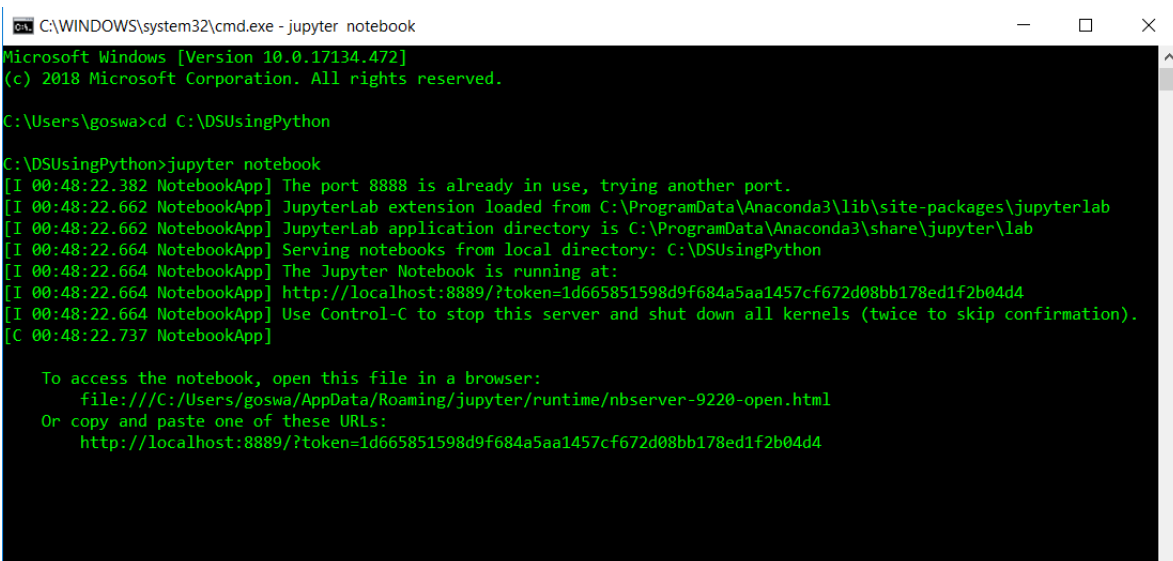
**STEP 1:** use `cd` command to go the specific folder (for me folder name is **DSUsingPython**)

 C:\WINDOWS\system32\cmd.exe

```
Microsoft Windows [Version 10.0.17134.472]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\goswa>cd C:\DSUsingPython
```

**STEP 2:** type `jupyter notebook` command



```
C:\WINDOWS\system32\cmd.exe - jupyter notebook
Microsoft Windows [Version 10.0.17134.472]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\goswa>cd C:\DSUsingPython

C:\DSUsingPython>jupyter notebook
[I 00:48:22.382 NotebookApp] The port 8888 is already in use, trying another port.
[I 00:48:22.662 NotebookApp] JupyterLab extension loaded from C:\ProgramData\Anaconda3\lib\site-packages\jupyterlab
[I 00:48:22.662 NotebookApp] JupyterLab application directory is C:\ProgramData\Anaconda3\share\jupyter\lab
[I 00:48:22.664 NotebookApp] Serving notebooks from local directory: C:\DSUsingPython
[I 00:48:22.664 NotebookApp] The Jupyter Notebook is running at:
[I 00:48:22.664 NotebookApp] http://localhost:8889/?token=1d665851598d9f684a5aa1457cf672d08bb178ed1f2b04d4
[I 00:48:22.664 NotebookApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirmation).
[C 00:48:22.737 NotebookApp]

To access the notebook, open this file in a browser:
file:///C:/Users/goswa/AppData/Roaming/jupyter/runtime/nbserver-9220-open.html
Or copy and paste one of these URLs:
http://localhost:8889/?token=1d665851598d9f684a5aa1457cf672d08bb178ed1f2b04d4
```

Jupyter nb will be launched in new browser window from that particular folder

## SPYDER:

### What is Spyder ?

Spyder stands for **Scientific Python Development Environment**, it is an Integrated Development Environment (IDE) for developing, debugging and maintaining code return in python.

### Launching Spyder:

Go to Start in Windows and search for **Anaconda3 (64-bit)**, expand the folder and click on **Spyder**

## **2.4 HARDWARE AND SOFTWARE REQUIREMENTS**

### **2.4.1 HARDWARE REQUIREMENTS:**

- System Processor : Pentium-III 2.4 GHz.
- System Hard disk : 150 GB or greater(Recommended)
- System RAM : 4 GB or greater(Recommended)

### **2.4.2 SOFTWARE REQUIREMENTS:**

- Operating system : - Windows10/98/95.
- Application Server : Tomcat5.0
- Server side Script : Python, Django.
- Database Connectivity : Sqlite.

## CHAPTER 3

# SOFTWARE REQUIREMENTS SPECIFICATION

## 3.1 FUNCTIONAL REQUIREMENTS

### Login

- **Description:** The user has to enter username and password
- **Input:** Username and Password
- **Processing:** Validating the user
- **Output:** Home Screen
- **Post Condition:** A new Session would be generate

### Manage Computer Accessories Details

- **Input:** Details of the computer accessories
- **Processing:** Viewing details about computer accessories
- **Output:** Add the files to database.

### Admin Manage User:

- **Input:** Details of the User
- **Processing:** Viewing details about user
- **Output:** Add the details to database.

### Admin Manage Price

- **Input:** Details of the accessories prize
- **Processing:** Adding details and query about prize
- **Output:** Add the details to database.



## **Manage Module**

- **Input:** Details of the module
- **Processing:** Adding details about module
- **Output:** Add the details to database.

## **3.2 Non-functional Requirements**

### **Adaptability**

All the documents should be changed accordingly based on the customer requirements like sizing of screen, resolution can able to modified, speed of the internet can't varied etc.

### **Availability**

The database connectivity of the system is completely satisfied and it is easy to access the database and they can able to update the database based on their requirement.

### **Maintainability**

Everyone has to change the project based on the user requirement without affecting the old project flow.

## CHAPTER 4

### SYSTEM DESIGN

#### 4.1 SYSTEM PERSPECTIVE

Programming process improvement frequently needs solid connects to extend the executives and control exercises, which are worried about recognizing the need of procedure change and activating improvement activities. Task the executives, then again, regularly comes up short at choosing suitable programming designing strategies and innovation that help to guarantee venture achievement.

It proposes a model that guides venture directors

- To set up a task with the goal that it can achieve its particular objectives.
- To identify restorative changes once an undertaking is danger of fizzling its objectives.

The likelihood of a structure perspective is to use a non-reductionist approach to manage the task of delineating the properties of the system itself. In the structure perspective, when one has recognized the system as an alternate bit of the universe, one isn't allowed to persistently separate the structure into isolated parts. Or maybe one is resolved to depict the structure all in all. If one uses segment into parts, as a segment of the delineation of the structure properties, that is simply bit of an absolute depiction of the lead of the aggregate.

In a System Perspective one ought to be cautious about thinking about the framework with regards to nature and not as a confined element. Along these lines one ought to incorporate the associations between the framework and the earth.

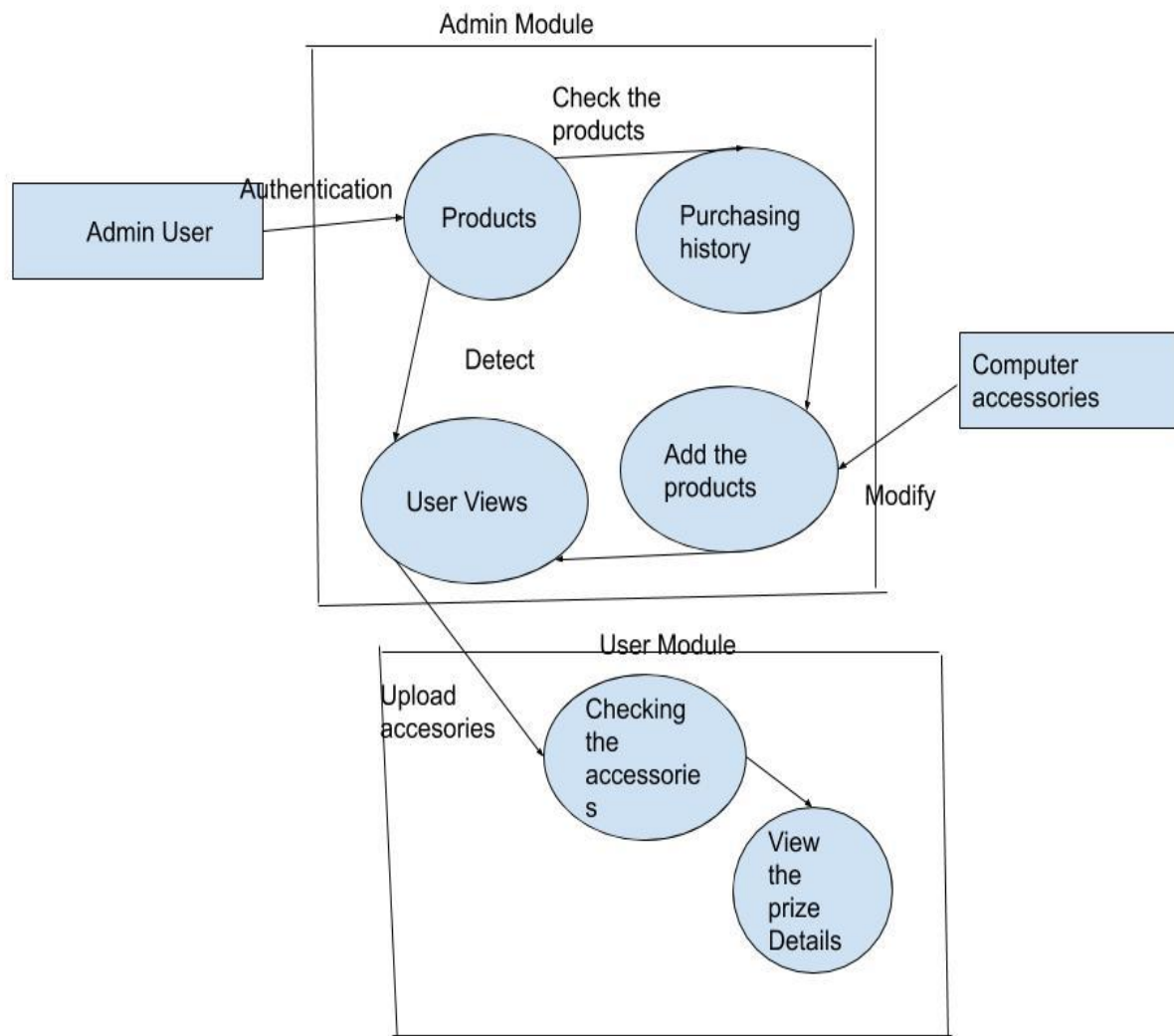
This can be stated as the first step of identifying the solution from the start of the problem, The main aim of Software Development Life Cycle (SDLC) is Identifying and Upgrading the requirement of a system into code.

## 4.2 CONTEXT DIAGRAM/DATA FLOW DIAGRAM

Context Diagram determines boundary of the system or parts of the system and its environment, displaying the entities that interact with it. Setting Diagram is the elevated level perspective on the framework, It is a typical instrument that Business Analysts use to comprehend.

It depicts the diagram functionalities required by the outer substances, it very well may be deteriorated into various sub-level DFDs in progressive way.

### CONTEXT DIAGRAM

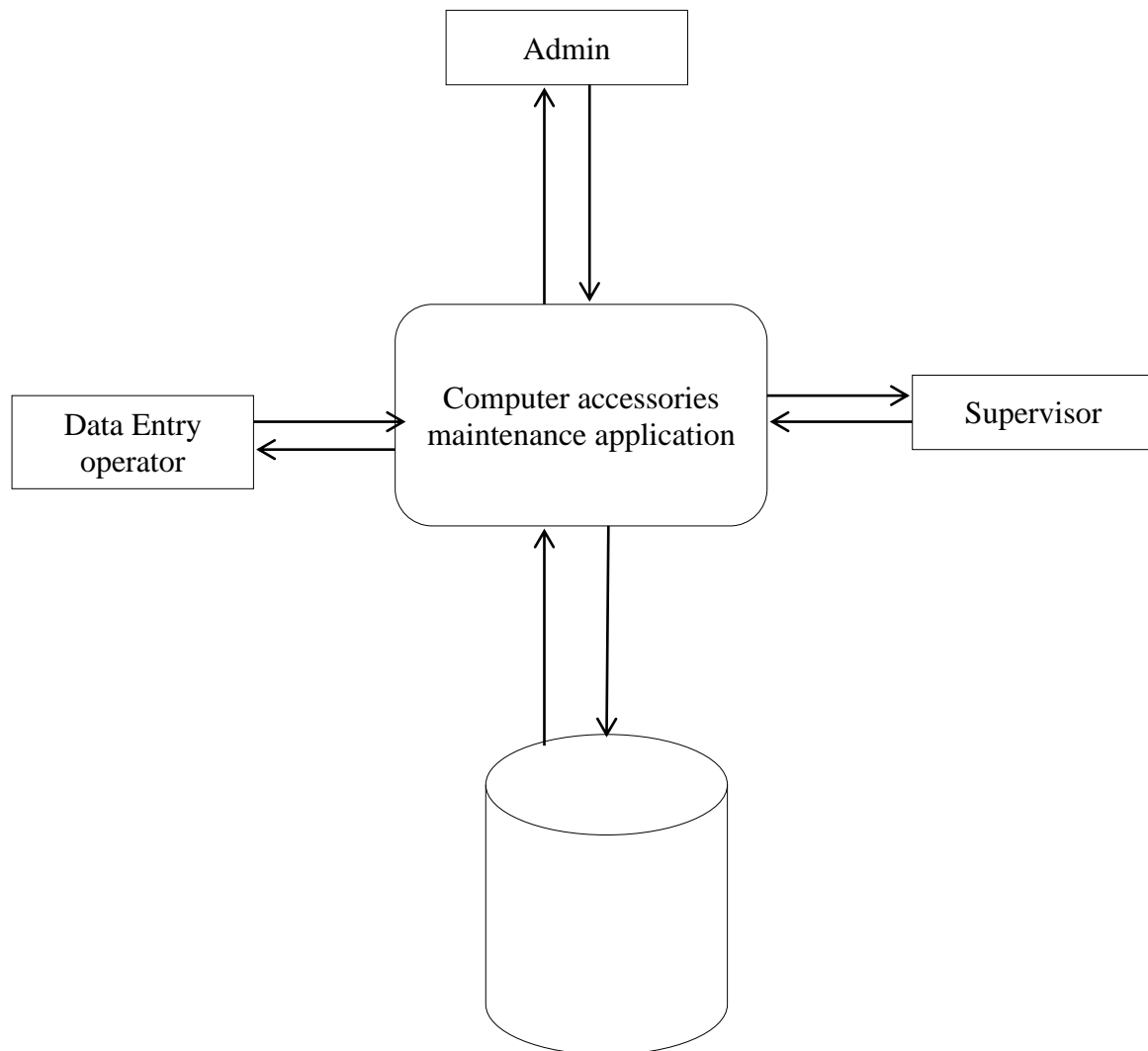


#### 4.2.1 DATA FLOW DIAGRAM OF ADMIN

1. The DFD is additionally called as air pocket outline.
2. This information stream graph is one of the best significant displaying instruments.
3. Data flow structure shows how the project flow how will works. It shows all the modules of the data

##### DFD

##### Level 0



**Figure 1:** Admin side data flow diagram

The above **Figure 1** shows the admin side data flow diagram and describes admin's functionalities like login operations.

Level 1

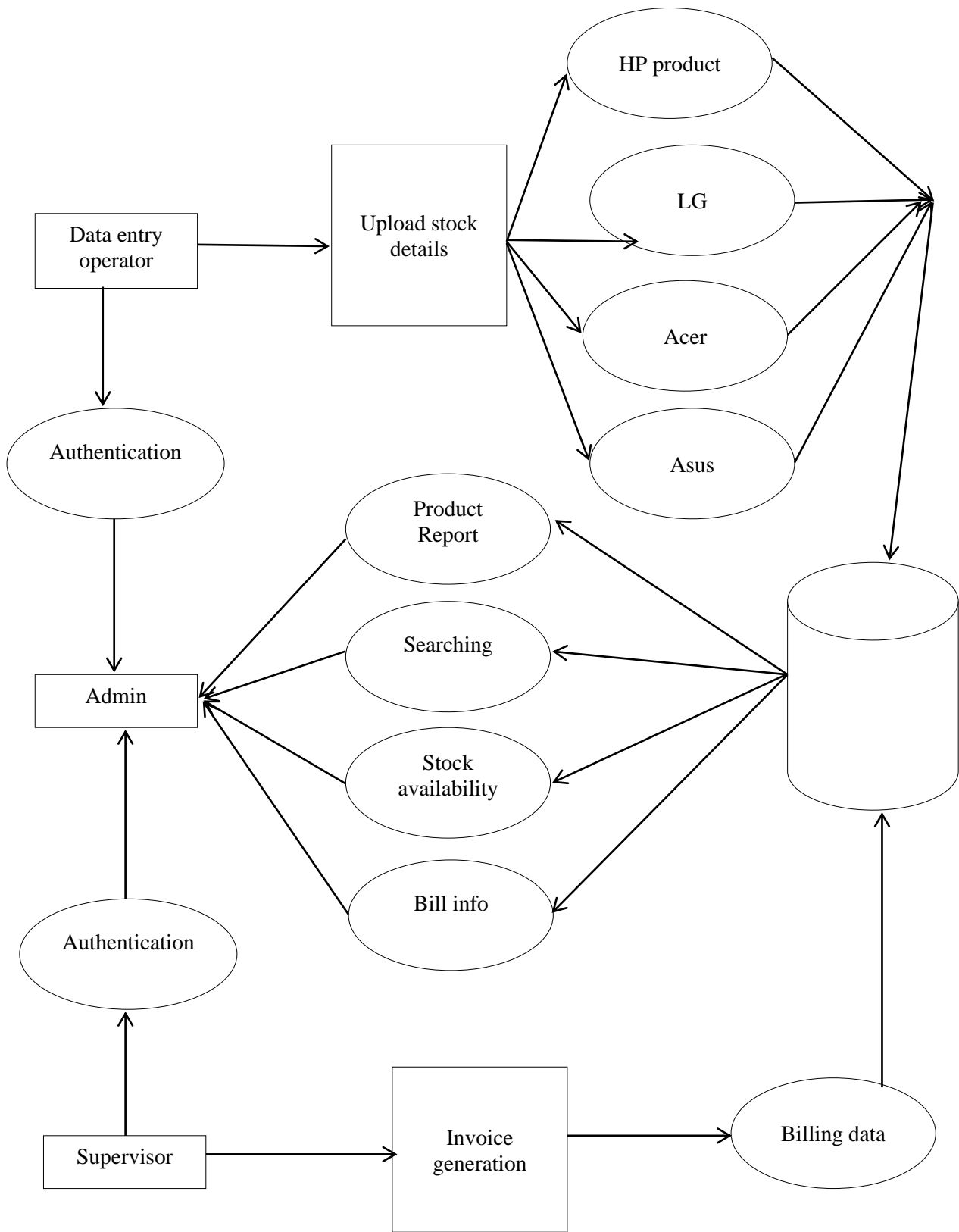


Figure 2: User side data flow diagram

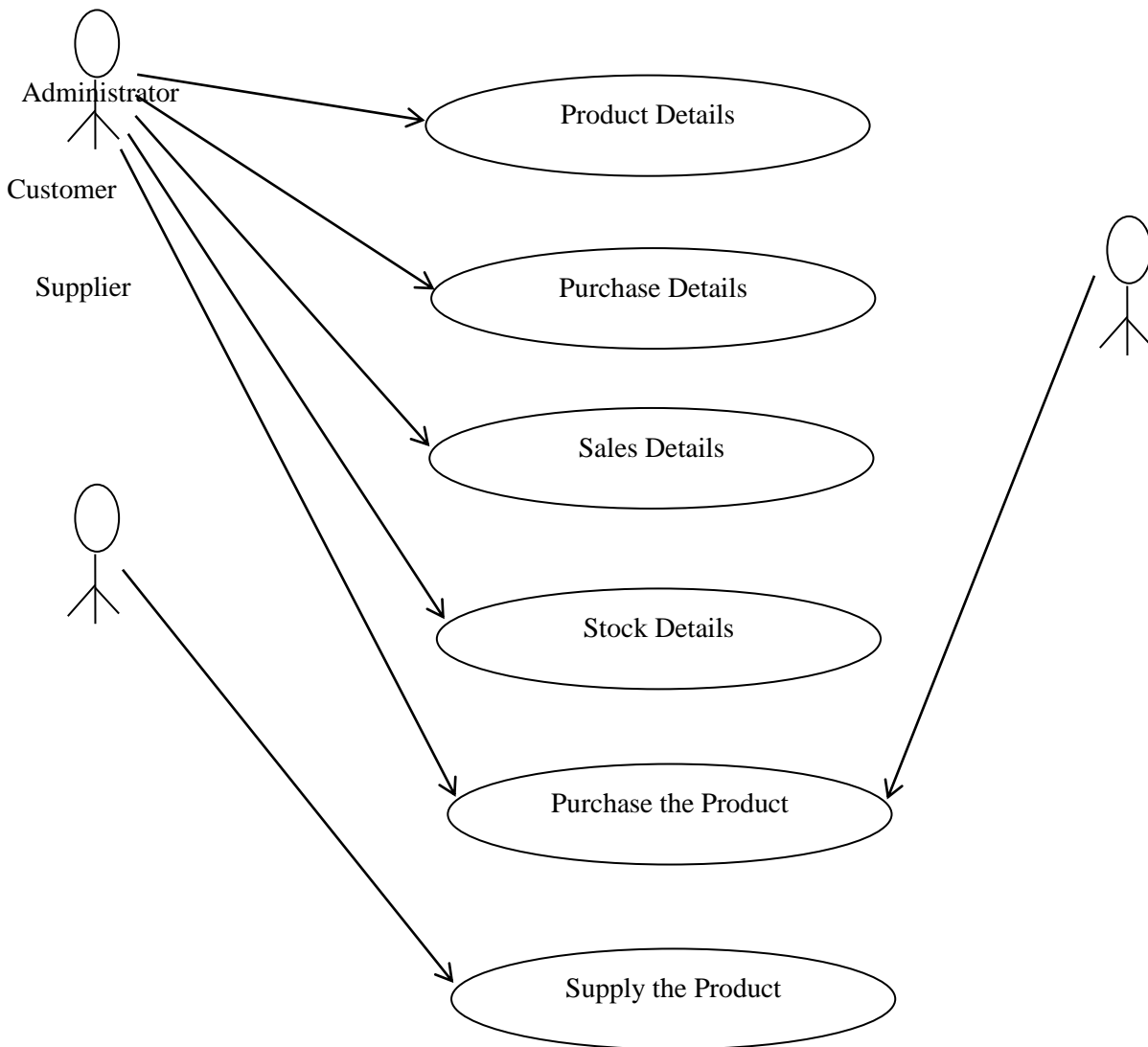
In above **Figure 2** shows the data side Data flow diagram and describes users functionalities like login and Viewing and managing user profile, product and equipment.

## CHAPTER 5

### DETAILED DESIGN

#### 5.1 USECASE DIAGRAM:

A usecase diagram shows all modules are users work related to entity and behavior concepts.



**Figure 3:** Use Case Diagram for Computer Accessories

#### UML Description

In the above UML Diagram **Figure 3** Admin and User are the actors, Admins functionalities are as follows:

- Add, Edit and Delete the Product Details in by entering product id, product name, product cost, and product features.

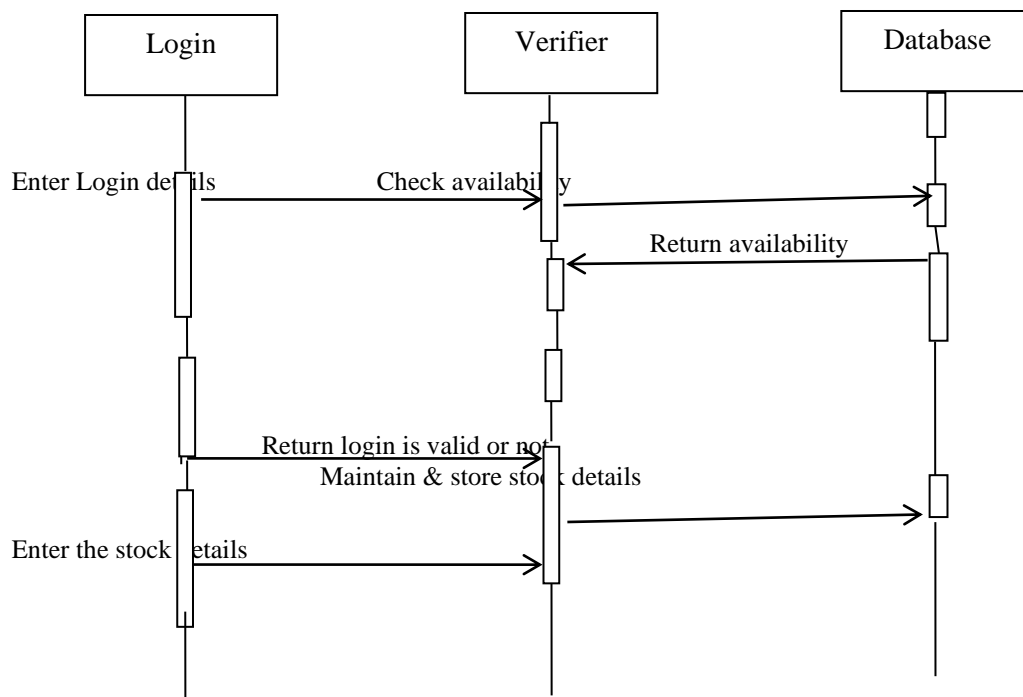
- Add, Edit and Delete the Purchase Details the product categories such as Mouse, keyboard, Monitor, CPU ect.
- Add, Edit and Delete the Sales Details the product and equipment which give the special functionalities of renting the farming equipment.
- Stock Details manage the equipment by updating the latest picture and market rate with discount.

**User's Functionalities** are as follows:

- Login by entering user id and password.
- Views the product details in the product page according to the category and Equipment in Equipment module.
- View the purchase details of the purchase page in customer details.
- Cash on delivery(COD) option is provide to the user to make payments, In return user gets the order receipt and invoice receipt with all the details.

## 5.2 SEQUENCE DIAGRAM:

Sequence diagram is also called event diagrams. It will shows all the modules connection link.

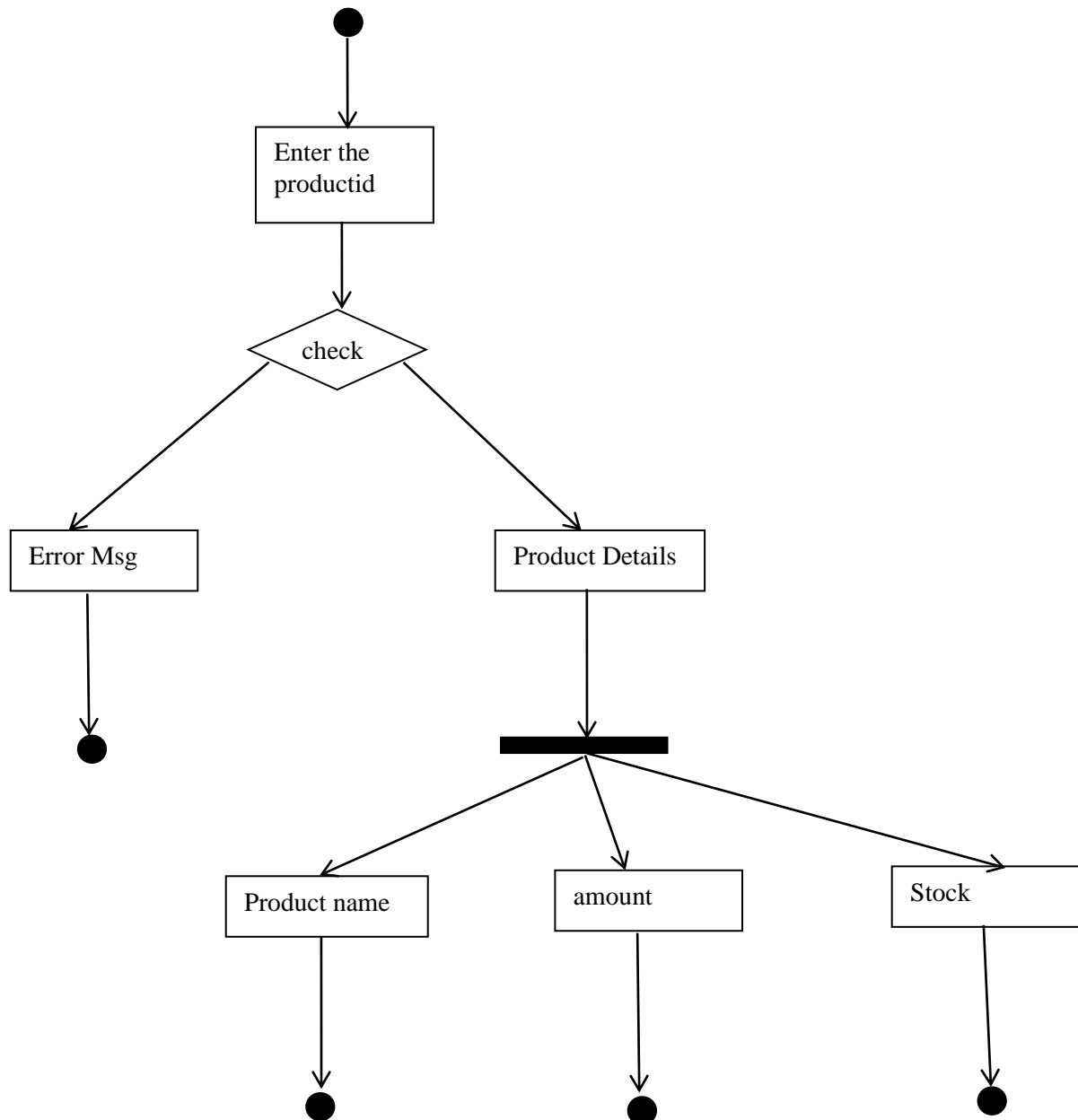


**Figure 4:** Admin side sequence diagram

The above **Figure 4** shows the admin describes the operations admin and users in a computer system.

### 5.3 ACTIVITY DIAGRAM:

Activity diagrams are graphical representations whether the user has authenticated or not.

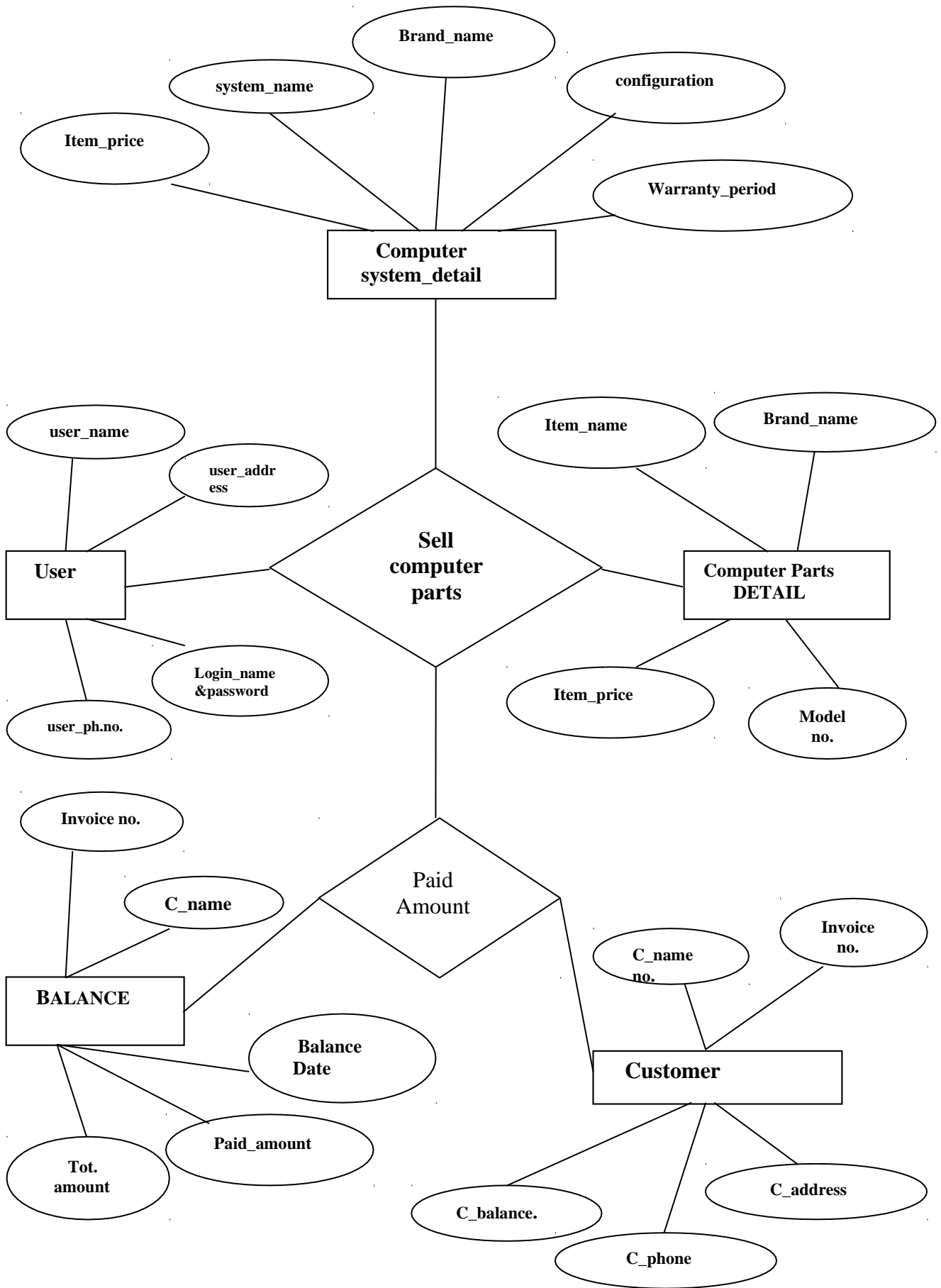


**Figure 5:** Product details of Activity Diagram

In above shows **Figure 5** diagrammatically describes the activities performed by product details in the computer systems.

### 5.5 ER Diagram





**Figure 6:** ER diagram

The above shows **Figure 6** represents the database diagrammatically that contains entity, attributes and relationships between all the entities.

## CHAPTER 6

### IMPLEMENTATION

#### Product storage

In this module an authorized employees of a hardware store uploads all details about each hardware components in to the server such as product id, product name, dealer name, configuration details, and rate and tax details also. The customers who want to access this resource should be registered and get login credential.

#### Registration

In this module the user can register their account, the customer type such as wholesale customer or retailer customer is mandatory. The concern fixes the rate and tax for the products based on the customer type. This information is retrieved and used for billing module.

#### Billing

In this module billing the details such as the sold product details, no of items sold, rate of the product, concession amount based on the customer type and total bill amount details are stored to a server and an invoice also generated. The authorized administrator view the customer details, product stock information and also able to view the report of the products.

#### Reporting

In this module report can generated it will highlighted the frequently sold company products and which customer can buy a more products also. This report is generated daily so it will be helpful to the authorized administrator.

### 6.1 TABLE DESIGN

#### Registration

Column Name	Data Type	Allow Nulls
userid	int	<input type="checkbox"/>
ename	varchar(45)	<input checked="" type="checkbox"/>
contact	bigint	<input checked="" type="checkbox"/>
address	varchar(60)	<input checked="" type="checkbox"/>
email	varchar(50)	<input checked="" type="checkbox"/>
username	varchar(45)	<input checked="" type="checkbox"/>
pass	varchar(45)	<input checked="" type="checkbox"/>
[confirm]	varchar(45)	<input checked="" type="checkbox"/>
		<input type="checkbox"/>

## Product

USET-PC.computer...ies - dbo.product			USET-PC.computer...
Column Name	Data Type	Allow Nulls	
bid	int	<input type="checkbox"/>	
productno		<input type="checkbox"/>	
pname	varchar(100)	<input checked="" type="checkbox"/>	
category	varchar(70)	<input checked="" type="checkbox"/>	
warranty	varchar(40)	<input checked="" type="checkbox"/>	
dp	int	<input checked="" type="checkbox"/>	
mrprate	int	<input checked="" type="checkbox"/>	
salestax	int	<input checked="" type="checkbox"/>	
totquantity	int	<input checked="" type="checkbox"/>	
avaquantity	int	<input checked="" type="checkbox"/>	
		<input type="checkbox"/>	

## Acer product

USET-PC.computer...- dbo.acerproduct			USET-PC.computer...
Column Name	Data Type	Allow Nulls	
bid	int	<input type="checkbox"/>	
productno		<input type="checkbox"/>	
modelno	varchar(50)	<input checked="" type="checkbox"/>	
category	varchar(100)	<input checked="" type="checkbox"/>	
warranty	varchar(40)	<input checked="" type="checkbox"/>	
basic	int	<input checked="" type="checkbox"/>	
dp	int	<input checked="" type="checkbox"/>	
mrprate	int	<input checked="" type="checkbox"/>	
salestax	int	<input checked="" type="checkbox"/>	
totquantity	int	<input checked="" type="checkbox"/>	
avaquantity	int	<input checked="" type="checkbox"/>	
		<input type="checkbox"/>	

## Asus product

USET-PC.computer...- dbo.acusproduct			USET-PC.computer...
Column Name	Data Type	Allow Nulls	
bid	int	<input type="checkbox"/>	
productno		<input type="checkbox"/>	
batterymodel	varchar(50)	<input checked="" type="checkbox"/>	
category	varchar(100)	<input checked="" type="checkbox"/>	
warranty	varchar(40)	<input checked="" type="checkbox"/>	
dp	int	<input checked="" type="checkbox"/>	
mrprate	int	<input checked="" type="checkbox"/>	
salestax	int	<input checked="" type="checkbox"/>	
totquantity	int	<input checked="" type="checkbox"/>	
avaquantity	int	<input checked="" type="checkbox"/>	
		<input type="checkbox"/>	

**Hpproduct:**

USET-PC.computera... - dbo.billdetails USET-PC.computera...

Column Name	Data Type	Allow Nulls
billno	int	<input checked="" type="checkbox"/>
billdate	datetime	<input checked="" type="checkbox"/>
productno	varchar(45)	<input checked="" type="checkbox"/>
pname	varchar(45)	<input checked="" type="checkbox"/>
dealername	varchar(40)	<input checked="" type="checkbox"/>
price	int	<input checked="" type="checkbox"/>
salestax	int	<input checked="" type="checkbox"/>
quantity	int	<input checked="" type="checkbox"/>
amount	int	<input checked="" type="checkbox"/>

**Bill detail:**

USET-PC.computer...s - dbo.hpproduct USET-PC.computer...

Column Name	Data Type	Allow Nulls
bid	int	<input type="checkbox"/>
productno		<input type="checkbox"/>
model	varchar(50)	<input checked="" type="checkbox"/>
dp	int	<input checked="" type="checkbox"/>
mrprate	int	<input checked="" type="checkbox"/>
salestax	int	<input checked="" type="checkbox"/>
totquantity	int	<input checked="" type="checkbox"/>
avaquantity	int	<input checked="" type="checkbox"/>

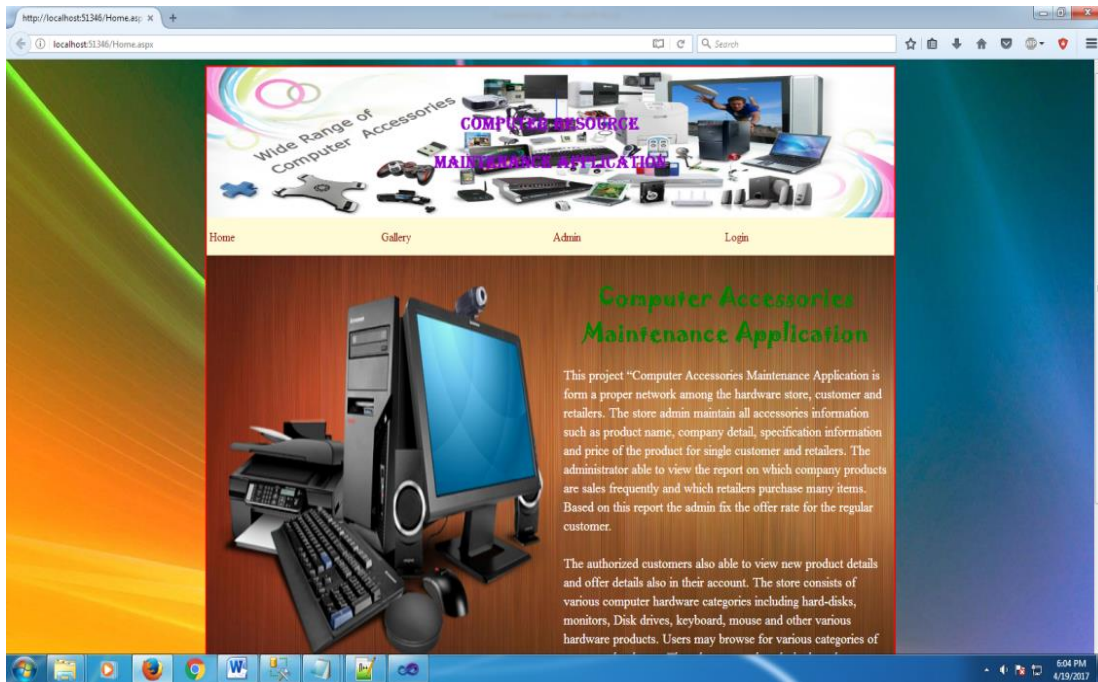
**Bill main detail:**

USET-PC.computer...o.billmaindetails USET-PC.computera...

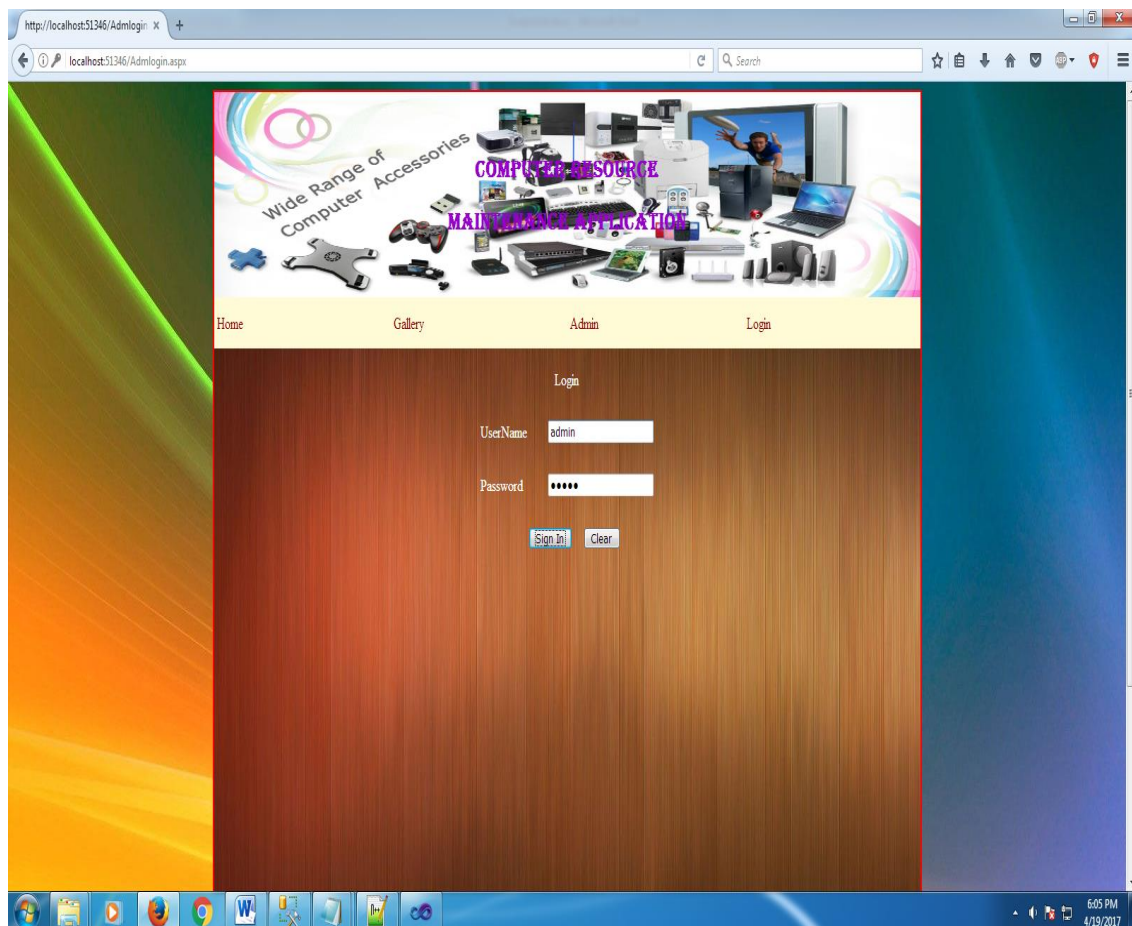
Column Name	Data Type	Allow Nulls
billno	int	<input type="checkbox"/>
billdate	datetime	<input checked="" type="checkbox"/>
cusname	varchar(35)	<input checked="" type="checkbox"/>
contact	bigint	<input checked="" type="checkbox"/>
custype	varchar(40)	<input checked="" type="checkbox"/>
totquan	int	<input checked="" type="checkbox"/>
totamt	int	<input checked="" type="checkbox"/>

## 6.2 SCREEN SHOTS

### Home



### Admin login



## New user

http://localhost:51346/Admauth: x

localhost:51346/Admauthorization.aspx

Wide Range of Computer Accessories

COMPUTER RESOURCE MAINTENANCE APPLICATION

Authorization Stock Detail Search Chart Bill Info Logout

**NEW USER AUTHORIZATION**

Employee Name: praveen

Contact No: 9878344567

Address: Rajdhani

Mail Id: praveen@gmail.com

UserName: praveen

Password: .....

Confirm Password: .....

Create! Clear

6:06 PM 4/19/2017

## User login

http://localhost:51346/Login.aspx

localhost:51346/Login.aspx

Wide Range of Computer Accessories

COMPUTER RESOURCE MAINTENANCE APPLICATION

Home Gallery Admin Login

**Login**

UserName: praveen

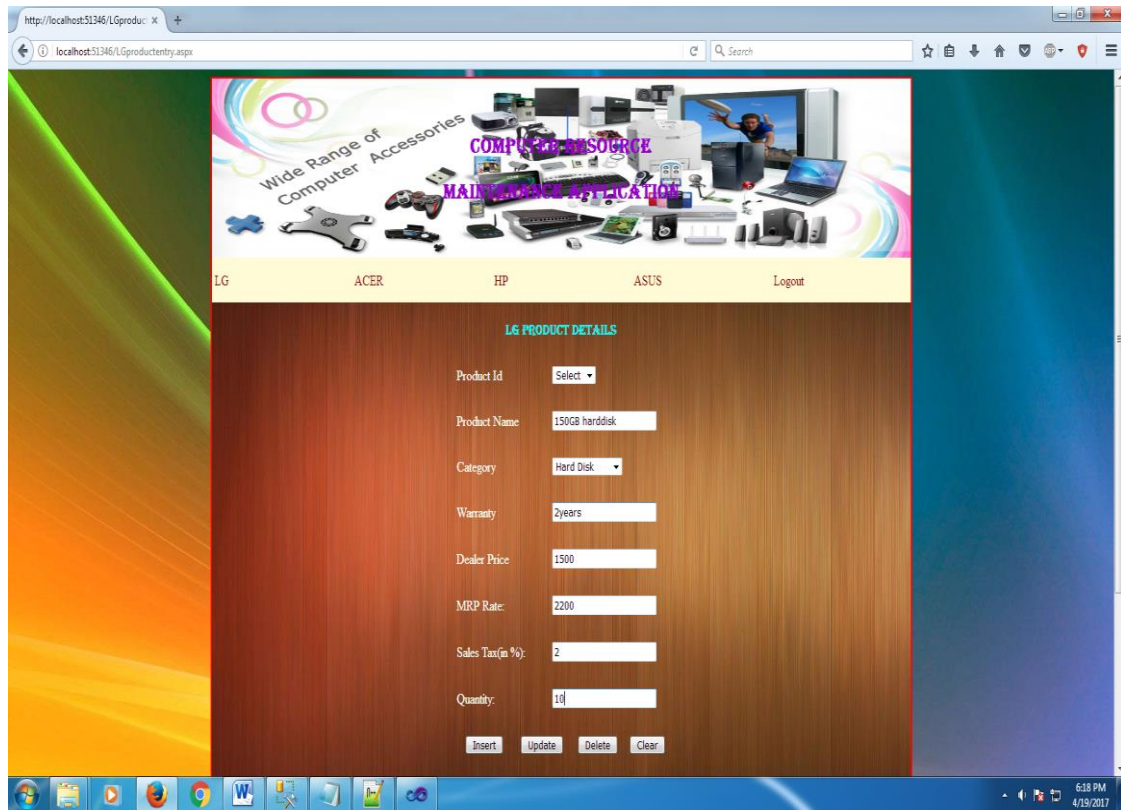
Password: .....

Data Entry Operator  Supervisor

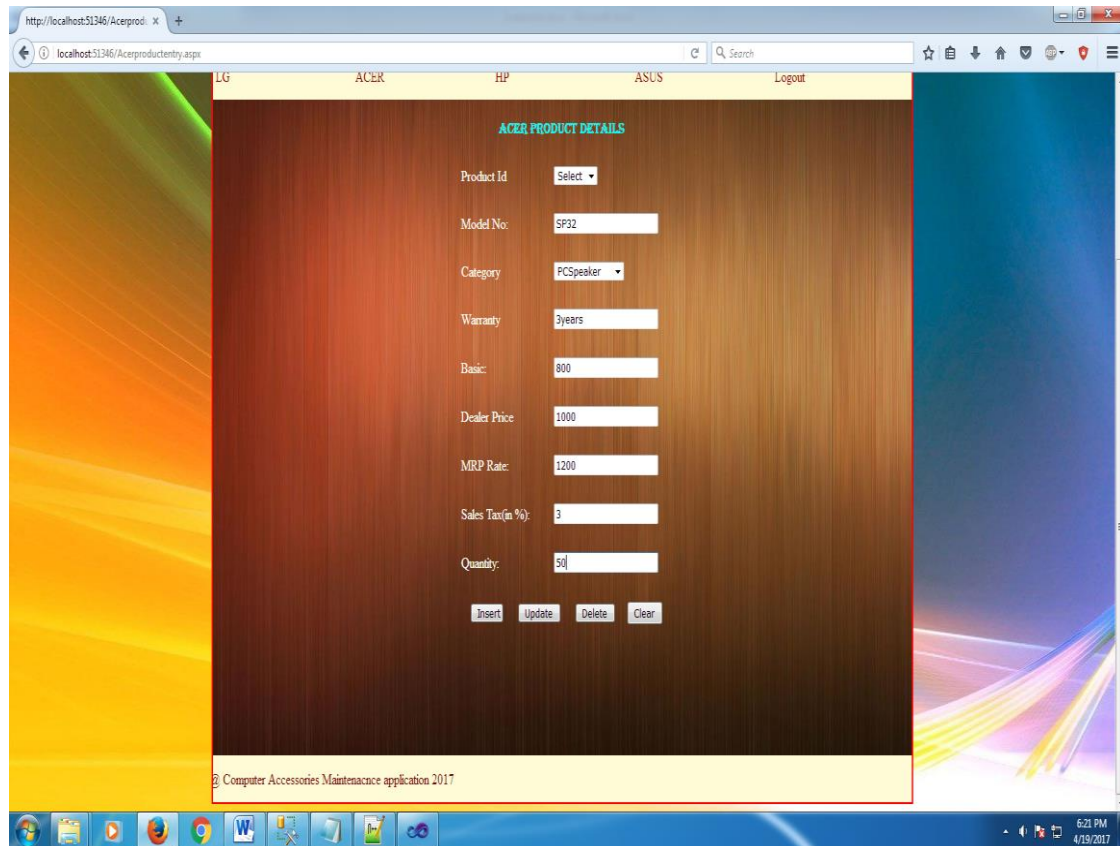
Sign In Clear

6:19 PM 4/19/2017

# LG product



# Acer product:



# Order

Wide Computer MAIN PLANNING APPLICATION Computer Accessories Maintenance application

**COMPUTER ACCESSORIES**

Customer Info

Bill No: 1 Bill Date: 4/19/2017 6:30:49 PM

Customer Name: keerthi Customer Contact: 9878344567

Customer Type:  Dealer  Single

Product Info

LG  Acer  Asus  HP

ProductNo	ProductName	Category	Warranty	DealerPrice	MRP	Tax	Quantity
LG1	LCD Monitor	Mouse	2years	5000	6000	2	<input type="text"/>
LG2	150GB harddisk	Hard Disk	2years	1500	2200	2	<input type="text"/>

[LogOut](#)

# Billing

Wide Computer MAIN PLANNING APPLICATION Computer Accessories Maintenance application

**COMPUTER ACCESSORIES DETAILS**

Bill No: 2 Bill Date: 4/19/2017 6:43:31 PM

Customer Name: praveen Contact No: 9878344567

Customer Type: Dealer

Product Details

Product No	Product Name	Dealer Name	Price	Tax	Quantity	Amount
LG1	LCD Monitor	LG	5000	2	2	10200
HP10001	LED Monitor	HP	6000	4	1	6240

No of Items: 3 Total Amount: 16440

[LogOut](#)



## Admin stock

Wide Range of Computer Accessories

COMPUTER ACCESSORIES  
MAINTENANCE APPLICATION

Authorization Stock Detail Search Chart Bill Info Logout

Select Dealer: LG

View Stock Detail

ProductNo	ProductName	Category	Warranty	DealerPrice	MRP	Tax	Inwards	Outwards	CurrentStock
LG1	LCD Monitor	Mouse	2years	5000	6000	2	40	2	38
LG2	150GB harddisk	Hard Disk	2years	1500	2200	2	10	2	8

## Admin search

Wide Range of Computer Accessories

COMPUTER ACCESSORIES  
MAINTENANCE APPLICATION

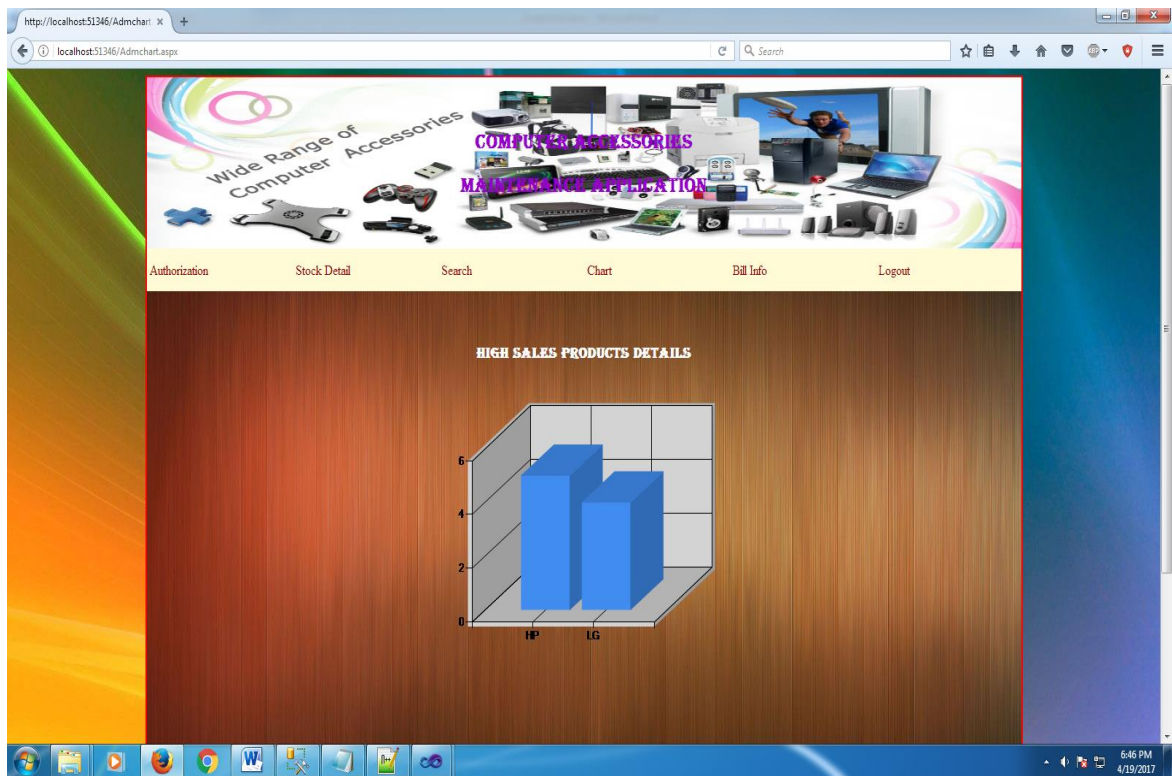
Authorization Stock Detail Search Chart Bill Info Logout

Select Date: 4/19/2017 28

Search

ProductNo	ProductName	Dealer	Price	SoldQuantity	TotalPrice
HP10001	LED Monitor	HP	6000	4	24960
LG2	150GB harddisk	LG	1500	2	3060
LG1	LCD Monitor	LG	5000	2	10200
HP10001	LED Monitor	HP	6000	1	6240

## Admin chart



## Admin bill details

Wide Range of Computer Accessories

COMPUTER ACCESSORIES  
MAINTENANCE APPLICATION

Authorization Stock Detail Search Chart Bill Info Logout

*Bill Details*

BillNo	Date	Customer	ContactNo	CustomerType	ItemsSold	BillAmount
1	4/19/2017 6:32:36 PM	keerthi	9878344567	Dealer	6	28020
2	4/19/2017 6:43:31 PM	praveen	9878344567	Dealer	3	16440

## **CHAPTER 7**

### **SOFTWARE TESTING**

The testing is mainly used to identify the errors in the project. Testing plays a vital role in all the software products. because all the user requirements should be satisfies here. This is the method to find the defects or faults in the software product. once the project has done we have to check all the attributes and whether the customer satisfaction has to be done or not. Each form we need to check validation and whether the particular fields becomes blank means we need to show the error to the user. So the complete test case of the project has to be done in this testing system.

#### **TYPES OF TESTS**

##### **Unit Testing**

Unit checking involves the planning of test cases and it checks the code with user has given valid input to get the valid output or not. Using unit testing method we can check whether the person is authorized or unauthorized person. If the person is authorized it is redirect to next page. If the person is unauthorized it will show error message has invalid input or something u can get red mark indicates in that particular page.

##### **Integration testing**

Integration tests are used to check the program page whether the user fill the values or not.. Integration testing is used to check whether all the fields are filled with value or not. If some of the fields are not field and it is mandatory means it shows like you need to fill the required value.

##### **Functional Test**

This testing will give the demo of the functions tested area and it will satisfy the customer business and technical needs, system documentation, and user manuals. It will validate the user input and output based on the customer satisfaction.

##### **System Test**

This testing is mainly used to check whether the customer requirement is completely satisfied or not. The system test will monitor the complete functionality of the software and it will be used to find the complete bugs in the project so the developer can able to find the error at the time of developing and all the validation related errors and missed fields error everything should be done by system test.

## White Box Testing

In this testing we have to know the inner working of the project. If tester understand the working then only they can able to do this testing. In this testing the tester can able to see the code and they can able to modify the code and internal working of the projects. If they changed also the system has to be work fine. This testing should be very important for all the software products.

## Black Box Testing

This testing can able to done by anyone. Because the working of the project is not necessary. This testing has to be done based on the user requirement and specification. If no one knows the flow of the project also can able to do Black box tests, they have to prepare complete document of the testing and test case everything has done by using black box testing.

## TEST CASES:

### 1.ADMIN LOGIN

#### 1.1 System Testing

This testing is mainly used to check whether the customer requirement is completely satisfied or not. the system test will monitor the complete functionality of the software and it will be used to find the complete bugs in the project so the developer can able to find the error at the time of developing and all the validation related errors and missed fields error everything should be done by system test.

#### Test Reports for Admin Login

Test Case No.	Test Case Description	Input	Expected Result	Remark
1.	Correct userid And password	Userid and password	Login successful	Pass
2.	Incorrect userid And password	Userid and password	Login Unsuccessful	Pass
3.	Blank userid And password.	Userid and password	Prompts message saying required field	Pass

## 1.2 Unit Testing:

Unit checking involves the planning of test cases and it checks the code with user has given valid input to get the valid output or not. Using unit testing method we can check whether the person is authorized or unauthorized person. If the person is authorized it is redirect to next page. If the person is unauthorized it will show error message has invalid input or something u can get red mark indicates in that particular page.

### Test Reports for Admin Login with blank field

Test Case No.	Test Case Description	Input	Expected Result	Remark
1.	All fields filled	Proper details	New Item added	Pass
2.	Missing fields	Blank input for some fields	Prompt message	Pass
3.	To check String or integer	Wrong input	Asking for correct input	Pass

## 2. USER LOGIN

### 2.1 System Testing

#### Test Reports for User Login

Test Case No.	Test Case Description	Input	Expected Result	Remark
1.	Correct userid And password	Userid and password	Login successful	Pass
2.	Incorrect userid And password	Userid and password	Login Unsuccessful	Pass
3.	Blank userid And password.	Userid and password	Prompts message saying required field	Pass

## 2.2 Unit Testing:

### Test Reports for User login with blank field

Test Case No.	Test Case Description	Input	Expected Result	Remark
1.	All fields filled	Proper details	New Item added	Pass
2.	Missing fields	Blank input for some fields	Prompt message	Pass
3.	To check String or integer	Wrong input	Asking for correct input	Pass

## 3.DATA ENTRY LOGIN

### 3.1 System Testing

#### Test Reports for Data entry Login

Test Case No.	Test Case Description	Input	Expected Result	Remark
1.	Correct userid And password	Userid and password	Login successful	Pass
2.	Incorrect userid And password	Userid and password	Login Unsuccessful	Pass
3.	Blank userid And password.	Userid and password	Prompts message saying required field	Pass

## 2. Unit Testing:

### Test Reports for data entry login with blank field

Test Case No.	Test Case Description	Input	Expected Result	Remark
1.	All fields filled	Proper details	New Item added	Pass
2.	Missing fields	Blank input for some fields	Prompt message	Pass
3.	To check String or integer	Wrong input	Asking for correct input	Pass

## 4. Add the Product

### 4.1 System Testing

#### Test Reports for User Login

Test Case No.	Test Case Description	Input	Expected Result	Remark
1.	Product name and barcode, prize	Product name and barcode, prize	Login successful	Pass
2.	Incorrect barcode	Barcode and prize	Login Unsuccessful	Pass
3.	Blank Barcode and prize	Barcode and prize	Prompts message saying required field	Pass

## 4.2 Unit Testing:

### Test Reports for Products with blank field

Test Case No.	Test Case Description	Input	Expected Result	Remark
1.	All fields filled	Proper details	New Item added	Pass
2.	Missing fields	Blank input for some fields	Prompt message	Pass
3.	To check String or integer	Wrong input	Asking for correct input	Pass

## 5. Bill Payment

### 5.1 System Testing

#### Test Reports for User Login

Test Case No.	Test Case Description	Input	Expected Result	Remark
1.	Fill the data Name, Mob no and Bank name	Name, Mob no and Bank name	Login successful	Pass
2.	Incorrect Mobile no, bank name	Mobile no, bank name	Login Unsuccessful	Pass
3.	Blank Mobile no, bank name	Mobile no, bank name	Prompts message saying required field	Pass



**5.2 Unit Testing:****Test Reports for Bill payment with blank field**

<b>Test Case No.</b>	<b>Test Case Description</b>	<b>Input</b>	<b>Expected Result</b>	<b>Remark</b>
1.	All fields filled	Proper details	New Item added	Pass
2.	Missing fields	Blank input for some fields	Prompt message	Pass
3.	To check String or integer	Wrong input	Asking for correct input	Pass

## **CHAPTER 8**

### **CONCLUSION**

Nothing is perfect in this world. So, we are also no exception. Although, we've tried our greatest to present the knowledge effectively, yet, there are often further enhancement within the Application. We have taken care of all the critical aspects, which require to require care of during the event of the Project. Like the things this project also has some limitations and may further be enhances by someone, because there are certain drawbacks that don't permit the system to be 100% accurate.

From this project we have data entry module, supplier and admin all the modules are perform different categories. For example in data entry module we can enter the data what are the stocks are available or not from this module we can monitor all the stocks it is useful to manage the users also. And admin modules need to check the user interest, supplier and data entry module to monitor and based on that admin module can launch different products. Supplier sells the product from user and manage the purchasing bill. From this project it is useful to maintain all the accessories based on user interest and they can achieve the success rate.

## **CHAPTER 9**

### **FUTURE ENHANCEMENTS**

In future there may be able to provide bar code support and make rebates on system configurations and group of computer components. Export data filters such as employee, payments, companies, sold items, components etc into excel file format and later there may be easy to change the data and print that files.

In this projects the database can be quickly back up in future And there is debts/demands of customer management and customize the bills that you want to print and also create estimates and later it can be converted into bills. There is also a report to make comparisons between the months. Sell computer System by installments. And will provide pay-roll administrations for our employees. Also server database is protected from unauthorized modifications.

## **APPENDIX A**

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## APPENDIX B

### USER MANUAL

#### How to Run Project

##### Step 1:

Open Anaconda Prompt

##### Step 2:

Change the drive to your project particular folder using command `cd`

**Ex: `cd PUF`**

##### Step 3:

Now we need to run the server for that we have to use the cmd

**Python `manage.py run server`**

##### Step 4:

Now we want to run the project for that

Open browser give **localhost: 8000**

Based on app **URL** access the module

#### New user

http://localhost:51346/Admauth: X

localhost:51346/Admauthauthorization.aspx

Wide Range of Computer Accessories

COMPUTER ACCESSORIES  
MAINTENANCE APPLICATION

Authorization Stock Detail Search Chart Bill Info Logout

**NEW USER AUTHORIZATION**

Employee Name:

Contact No:

Address:

Mail Id:

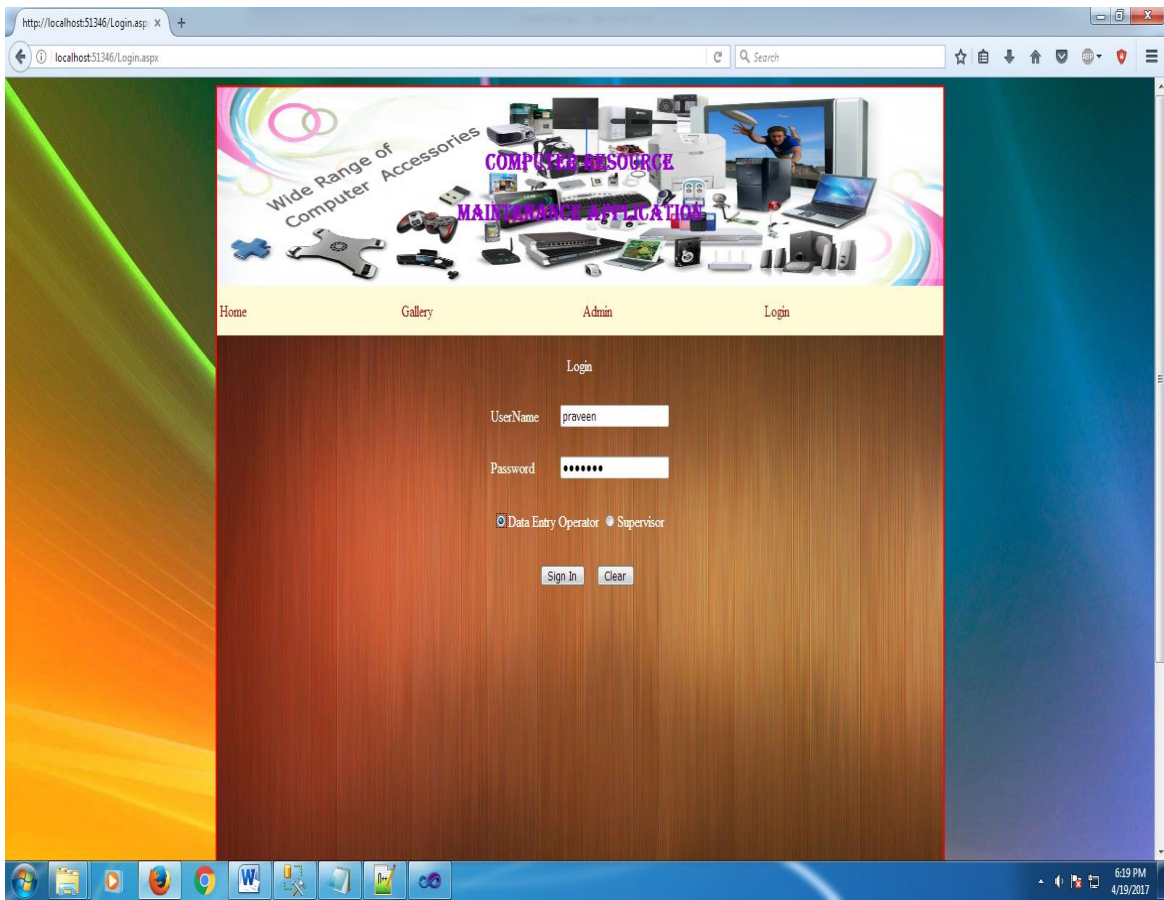
UserName:

Password:

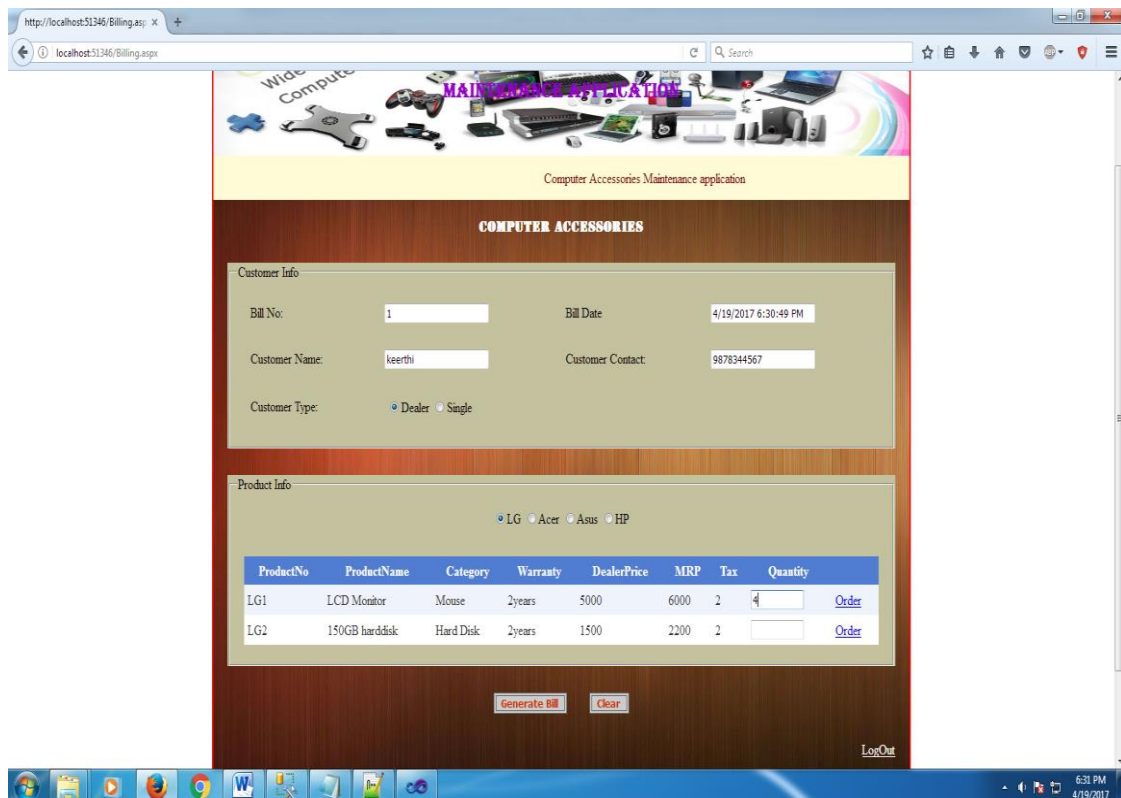
Confirm Password:

6:06 PM  
4/19/2017

## User login



## Order



# Billing

Computer Accessories Maintenance application

### COMPUTER ACCESSORIES DETAILS

Bill No: 2 Bill Date: 4/19/2017 6:43:31 PM

Customer Name: praveen Contact No: 9878344567

Customer Type: Dealer

Product Details

Product No	Product Name	Dealer Name	Price	Tax	Quantity	Amount
LG1	LCD Monitor	LG	5000	2	2	10200
HP10001	LED Monitor	HP	6000	4	1	6240

No of Items: 3 Total Amount: 16440

[Print](#) [LogOut](#)