

# **ELECTRONIC STORE MANAGEMENT**

SUBMITTED BY

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TY BSC COMPUTER SCIENCE

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# **ACKNOWLEDGEMENT**

The success and the final outcome of this project required a lot of guidance and assistance from many people and I am privileged to have got this all along the completion of my project.

I would like to thank our PRINCIPAL PROF. S VENKATRAMAN for his blessings, co-operation and support.

I would like to express my gratitude for our college project guide MR ABHIJEET KALE for encouraging me to complete my project work and guiding me throughout various phases.

I would also like to extend my gratitude to my unofficial guide MY FRIENDS who not only helped me in the project completion but also taking the entire document for the same.

I am grateful to IT department of BN BANDODKAR COLLEGE OF SCIENCE, THANE for timely guidance.

And above all I am grateful to SHARMA ELECTRONICS who gave me an opportunity to take up this project.

Last but not the least I would like to avail myself  
for always believing in me, having faith and  
courage to stand against all the challenges.

# **DECLARATION**

I MISS AASAWARI SANJIV BHAVSAR the student of  
TYBSC Computer Science hereby declare that,  
I have completed the project  
on

## **ELECTRONIC STORE MANAGEMENT**

The information submitted is true and original  
To the best of knowledge.

Signature of student

AASAWARI SANJIV BHAVSAR

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# **SOFTWARE DEVELOPMENT LIFE**

## **CYCLE**

The software development life cycle is a process used by the software industry to design, develop, and test the quality of your software. SDLC aims to produce a high-quality software that meets or exceeds the customer's expectations, reaches completion within time, estimates and the cost.

### ***WATERFALL MODEL***

It is the most widely used development model for the software to ensure success of the project, it have several stages where the output of each stage acts as the input for the next stages. The access of the other phase can only be done if the prior phase is completed. Different phases of waterfall model are:

#### **1- REQUIREMENT ANALYSIS**

Requirements are gathered and implemented in the user specific way. For my electronic store management, the owner wanted the system that stores information of all his customers, list of all the products they sell, the product user purchased, their order summary and then finally generate the bill.

#### **2- SYSTEM DESIGN**

Helps in specifying the hardware and the system requirements followed by the overall system architecture. The designed system can be accessed by the admin using the id and password to access the system, the electronic store management system requires- min 4GB hard-disk, min 1GB of space in the system, processor must be minimum 3.0GHz or higher, visual studio 2012 is being used as a front-end and Microsoft SQL server is being used as a back-end. Developed over the windows operating system.

### **3- IMPLEMENTATION**

Takes the input from the system design, where the program is divided in number of small units and testing is performed on every particular unit, this management system is divided in different phases of storing the data in the system like- inserting, updating, deleting, viewing the data. Coding of each phase is done separately and then results of each part is combined in a form page for the system to work according to the customer. The login page for the admin is designed separately storing the id and password of the authorized user only.

### **4- TESTING / IMPLEMENTATION TESTING**

This phase is followed by the implementation phase, all the small programs that are divided in different parts are tested individually for their working, all the faults and failures are covered in this section, testing of different codes for inserting, updating, deleting and viewing phase are carried out and then the result of all the phases are combined together in a single form page which creates an ease for the user to perform operations, rather than going on different forms and performing different tasks.

### **5- DEPLOYMENT**

As the functional and non-functional testing is done and the project is completely fit to get delivered to the customer, then the electronic management system is finally given to the customer for accessing and performing their work, to store all the data and keep a check on their customer requirements.

### **6- MANAGEMENT**

Once the system is delivered to the customer to perform its work, the developer should be always present if any fault occurred in the system. The system is designed in a particular way that any faults or any errors that might occur in the system can be easily be resolved to enhance the use of the system by the customer, also the system is designed in a particular way that if the customer wants to make any kind of changes in



the system then the system can easily adapt changes as per the user requirements.

# **FEASIBILITY STUDY**

Feasibility is defined as an extent to which the project has been designed / performed successfully, the feasibility study determines whether the solution considered to accomplish the requirement is practical and workable in the software. Several things are considered during the feasibility study such as resource availability, cost estimation, benefits of the software, etc. by the help of the feasibility study the software should be- acceptable to the user, should easily adapt changes and comfortable to establish standards.

## **TYPES**

### **1- TECHNICAL FEASIBILITY**

It is the evaluation of hardware and software and how it meets the proposed system. The project is basically built with the help of the available technology. The system is based using the visual studio 2012 as a frontend and Microsoft SQL as the backend of storing the values in the database. It provides the technical guarantee for accuracy, responsibility and security. It provides all the response regardless of the number of the user. It is easy for the user to add some more functionality to the system if needed.

### **2- OPERATIONAL FEASIBILITY**

This is the system that meets the requirements of the admin. Can easily improve the performance. Provides the convenient mode of operation for the user. For the implementation the user of the system should know the basic operations which are to be performed on the system else it is much easier to understand and learn all the functionalities. several operations are performed in this system like, insertion, deletion, updation ,viewing of all the inserted or the saved data in the system.all the saved data information of all the customers can be viewed in the data-grid view as the admin clicks the view button. as the user clicks the insert button the is able to enter the new data for the new customer and the data is shown in the data grid view, if the admin wants to delete any data ,he can then just select any data to be deleted and then just click the delete button similar for the updation process.

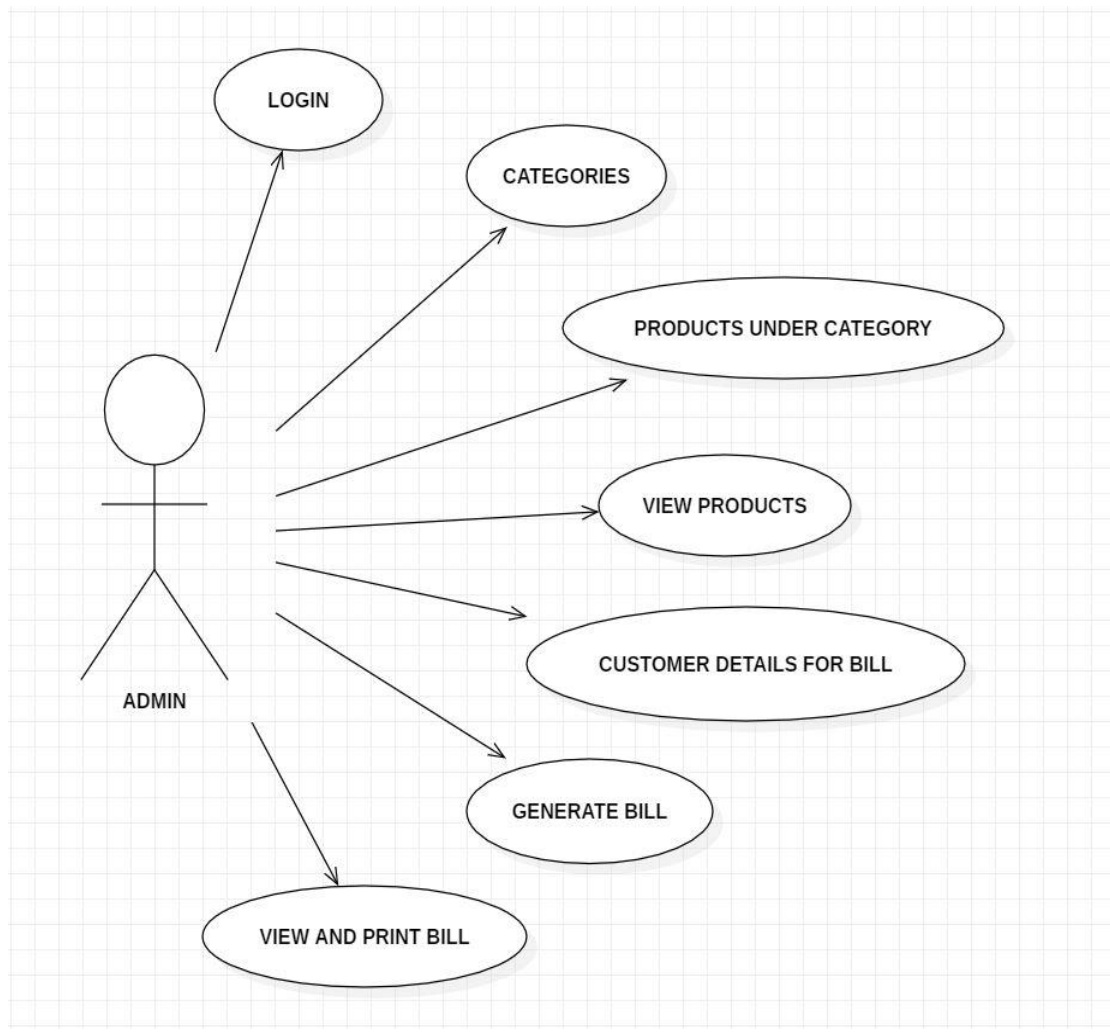
### **3- ECONOMICAL FEASIBILITY**

It is the means of analysis of the cost required to build the system. Is basically concerned with the cost of development and the implementation of the system. All the cost of the hardware and the software is much reasonable. This system reduces the work load as it is much different than writing and maintaining all the paper works. Minimum amount of time is required to recover the cost incurred in the project.

hence the system follows all the 3 feasibilities ( technical, operational , economical ).

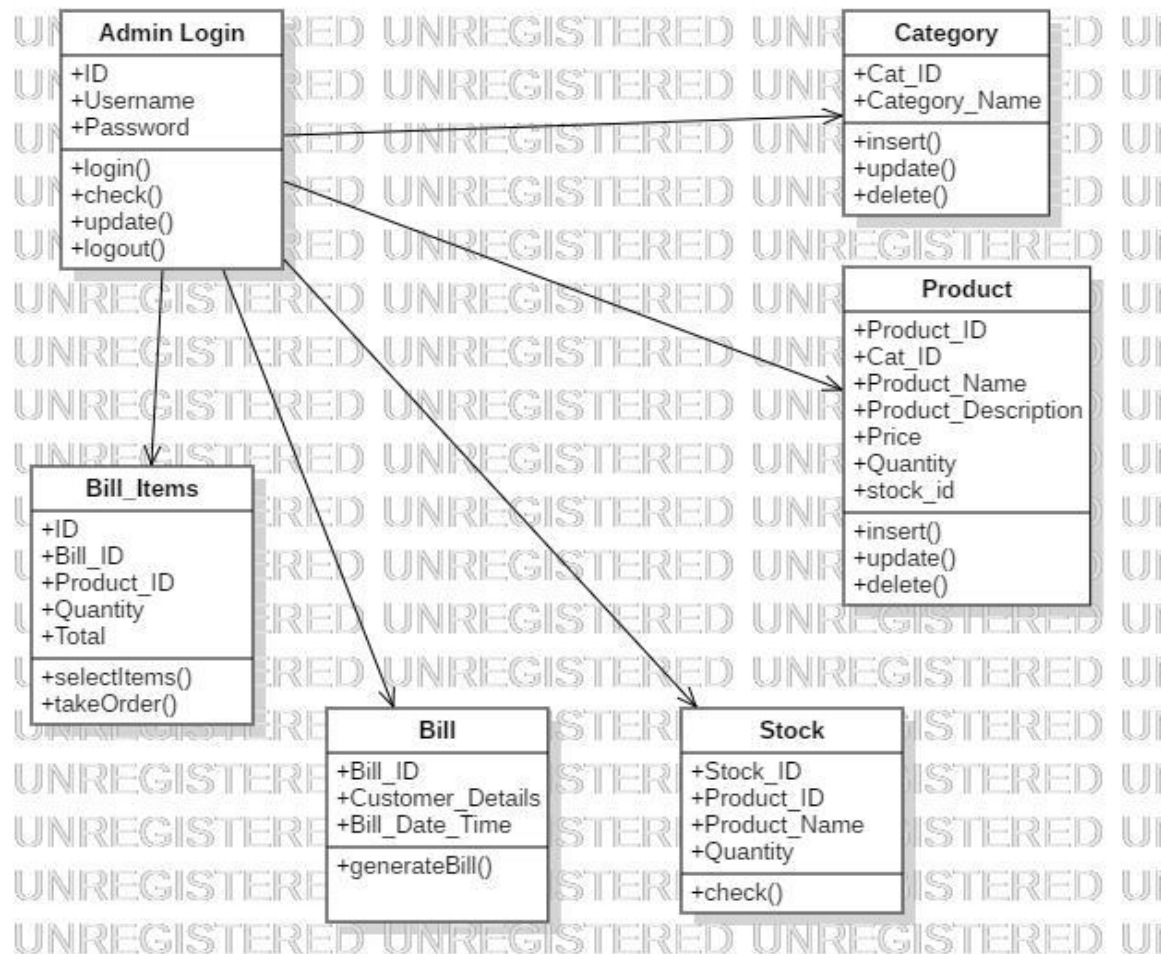
# USE CASE DIAGRAM

A USE CASE diagram at its simplest is a representation of a user's interaction with system that shows the relationship between the user and the different use case in which the user is involved.



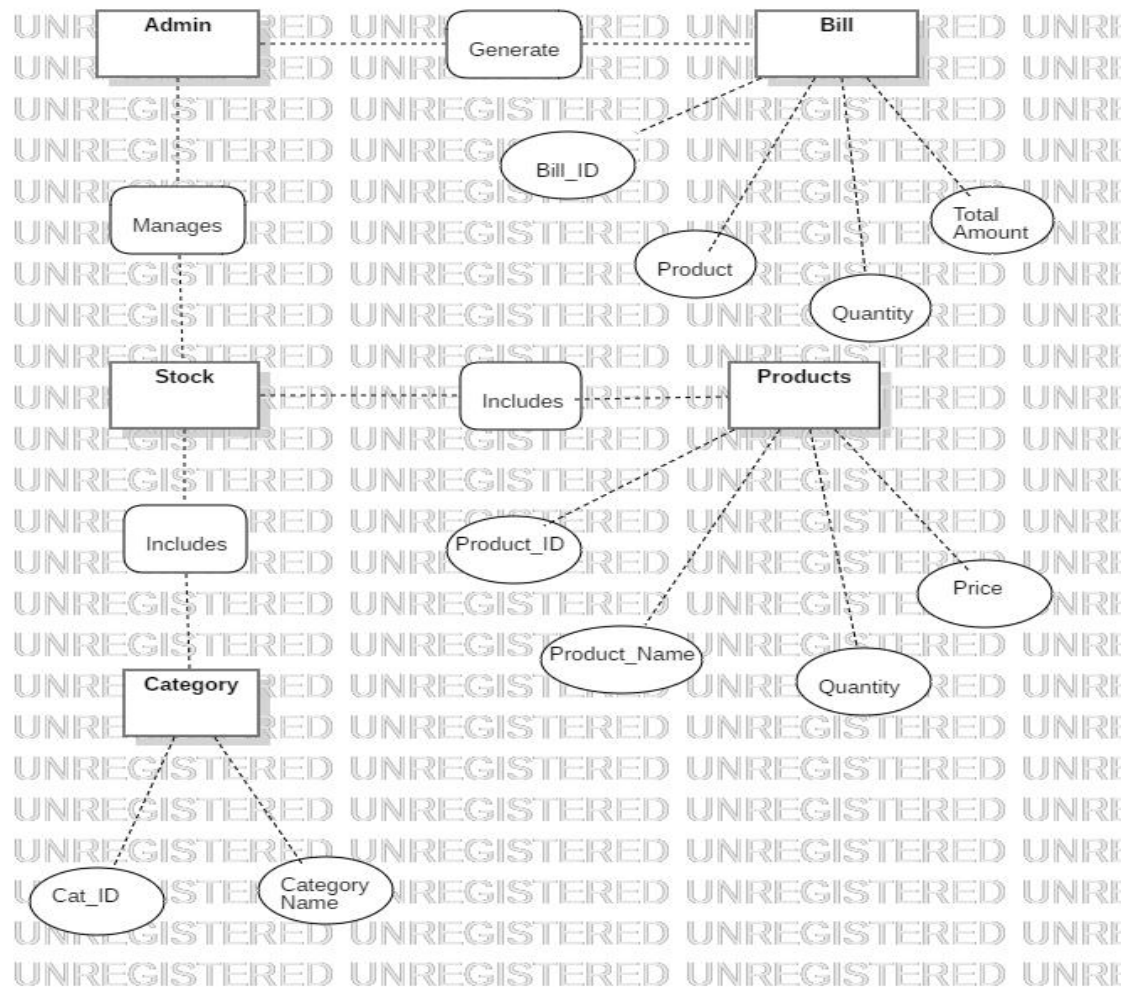
# CLASS DIAGRAM

A Class diagram in the UML is a type of static structure diagram that describes the structure of the system by showing the system's classes, their attributes, their operations and relation among them.



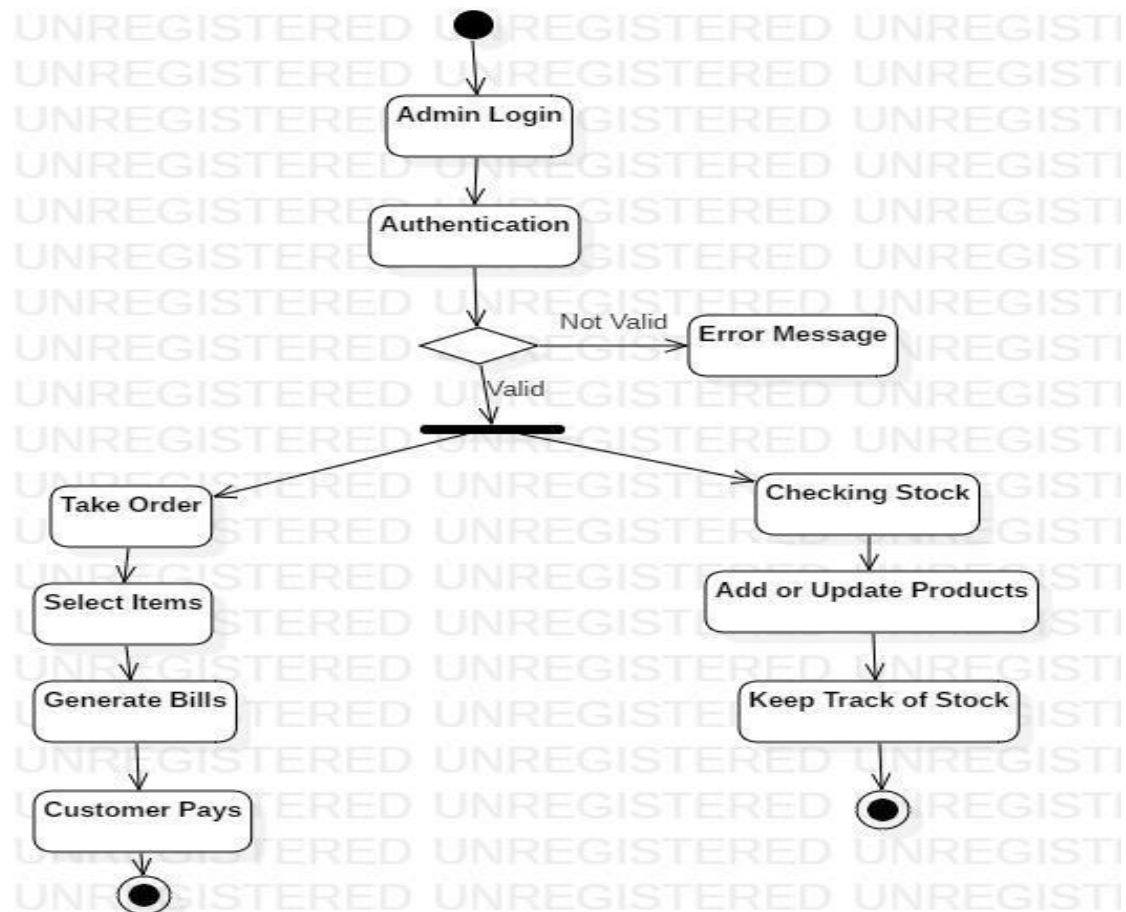
# ER DIAGRAM

An ER diagram describes interrelated things of interest in specific domain of knowledge, a basic ER diagram consists of entity types and specific relationship that can exist between entities.



# ACTIVITY DIAGRAM

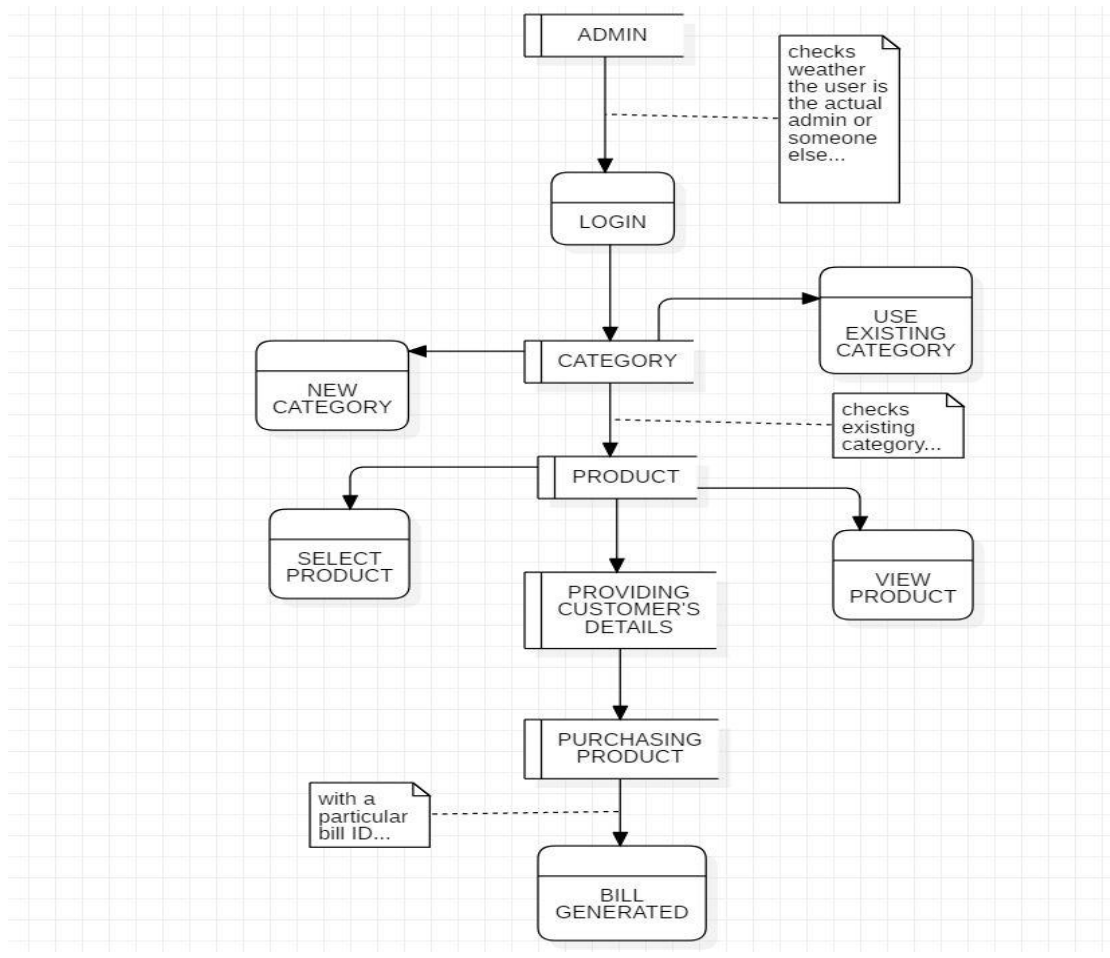
It is basically a flow chat to represent a flow from one activity to another, the activities can be described as an operation of the system. The control flow is drawn from one operation to the other.



ACTIVITY DIAGRAM

# CONTEXT DIAGRAM

A diagram that defines the boundary between the system or the part of the system and its environment, showing the entities that interact with it. This diagram is a high level of a system.





# DATABASE TABLE

## ADMIN LOGIN (tbl\_user)

FIELD NAME	DATATYPE
UserID (uid) PrimaryKey	Numeric
Username (username)	Varchar(50)
Password (pass)	Varchar(50)

## CATEGORY OF ITEMS IN STORE (tbl\_category)

FIELD NAME	DATATYPE
CategoryID (cat_id) PrimaryKey	Numeric
Category (categoryname)	Varchar(50)

## PRODUCTS UNDER CATEGORY (tbl\_products)

FIELD NAME	DATATYPE
Product ID (pid) PrimaryKey	Numeric
Category ID (cat_id)	Numeric
Product Name (pro_name)	Varchar(200)
Product Description (pro_desc)	Varchar(1000)
Product Price (pro_price)	Numeric
Product Discount (pro_disc)	Numeric
Product Image (imgurl)	Varchar(50)

## GENERATE BILL (tbl\_bill)

FIELD NAME	DATATYPE
Bill ID (billid) PrimaryKey	Numeric
Customer Detail (customerdetails)	Varchar(1000)
Date and time (billdatetime)	Datetime

**ITEMS INCLUDED IN BILL (tbl\_bill\_items)**

FIELD NAME	DATATYPE
ID (id) PrimaryKey	Numeric
Bill ID (billid)	Numeric
Product ID (pid)	Numeric
Quantity of Item (qty)	Numeric
Total Cost of Purchase (total)	Numeric

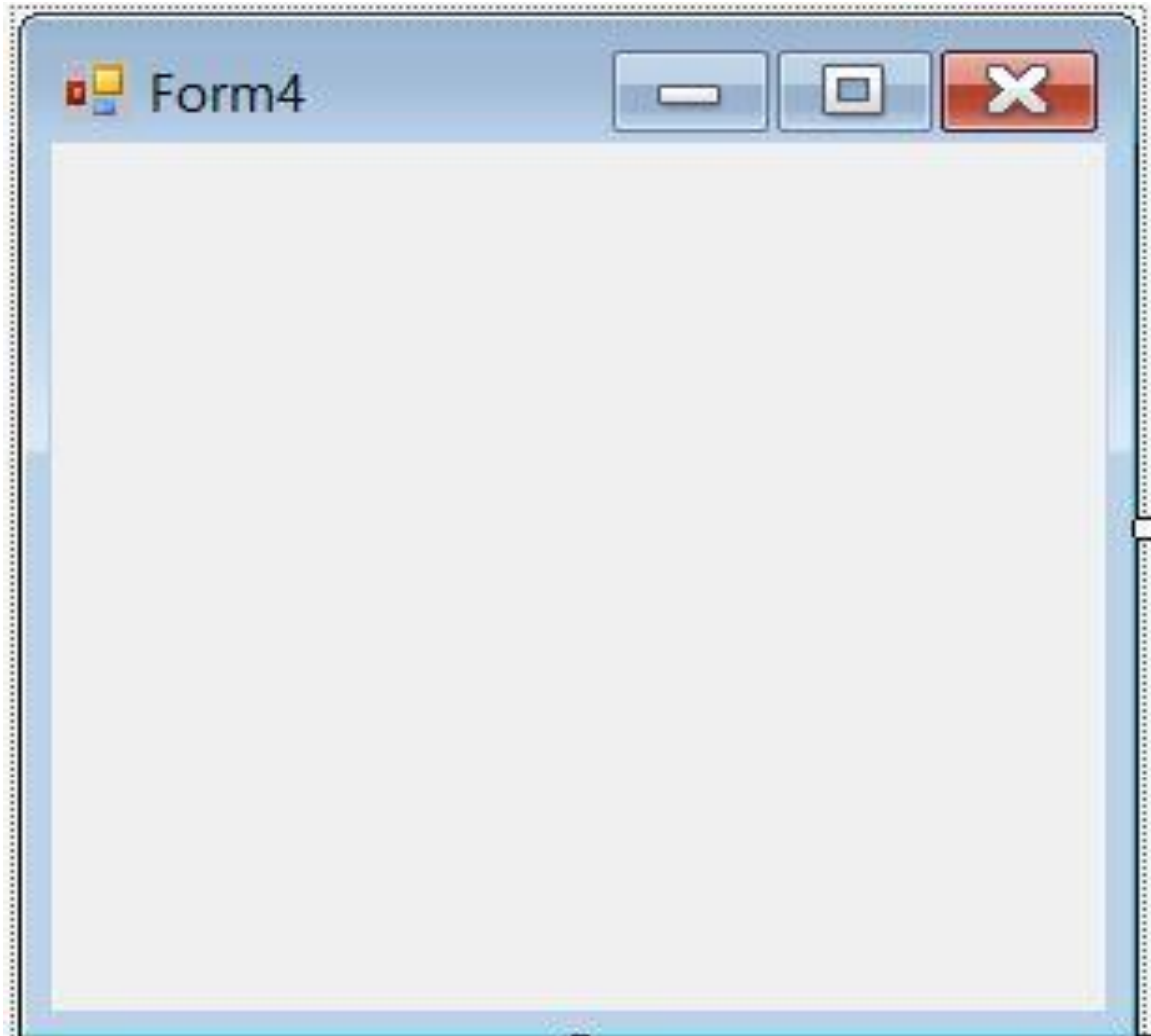
**STOCK(tbl\_stock)**

FIELD NAME	DATATYPE
Stock_ID (primary key)	Numeric(18,0)
Product_ID	Numeric(18,0)
Product_Name	Varchar(50)
Quantity	Numeric(18,0)

## EVENT TABLE

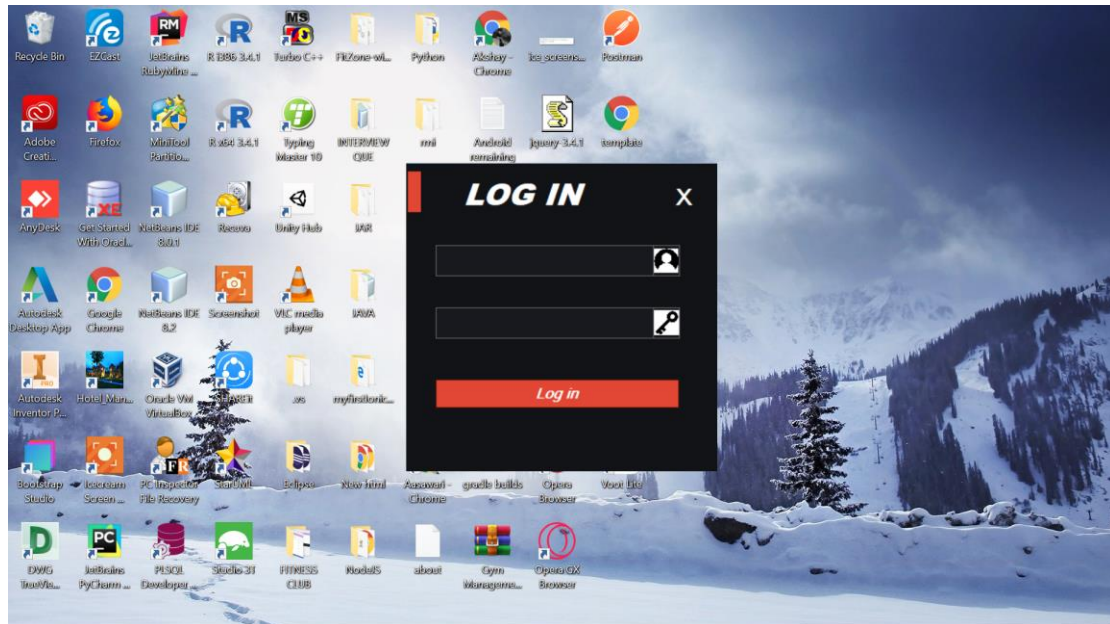
Event	Trigger	Source	Activity	Response	Destination
Admin Login	Login application	Admin	Login In	Login Successful	Admin
Customer orders items	Ordering Services for Customer	Customer	Orders Items	Order is Placed	Admin
Performs Operations	Manages Customer	Admin	Add different items	Operations are performed successfully	Admin
Billing	Print the Bill	Admin	Generate Bill	Bill has been printed	Customer
Admin provides Services	Service is provided	Admin	Provide Service	Services are done	Customer

# FORMS



# MODULES DESIGN

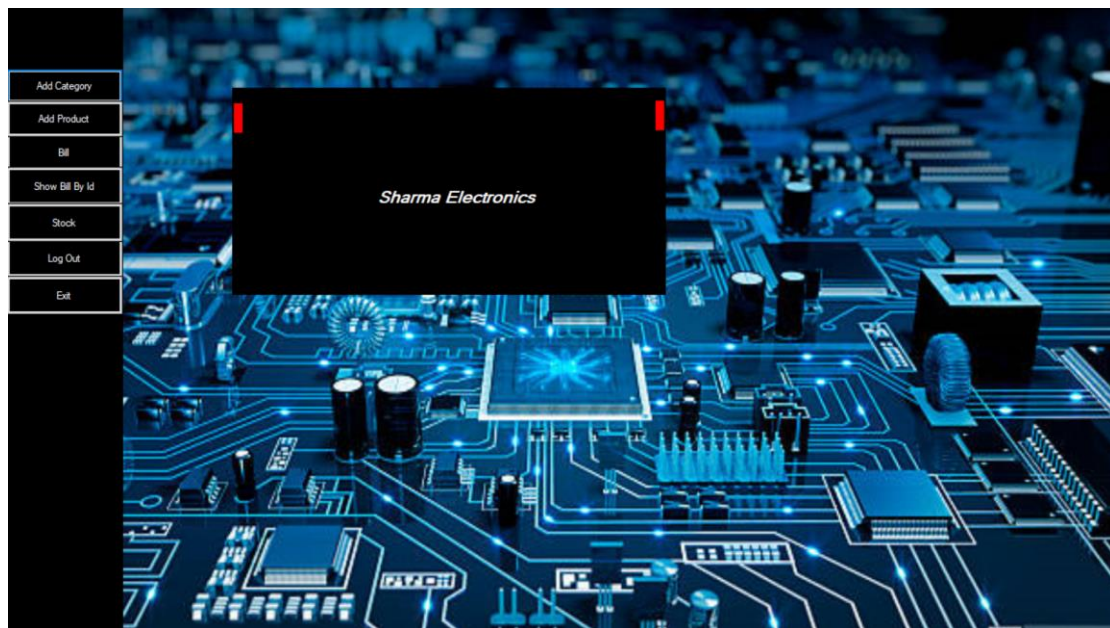
## LOGIN FORM



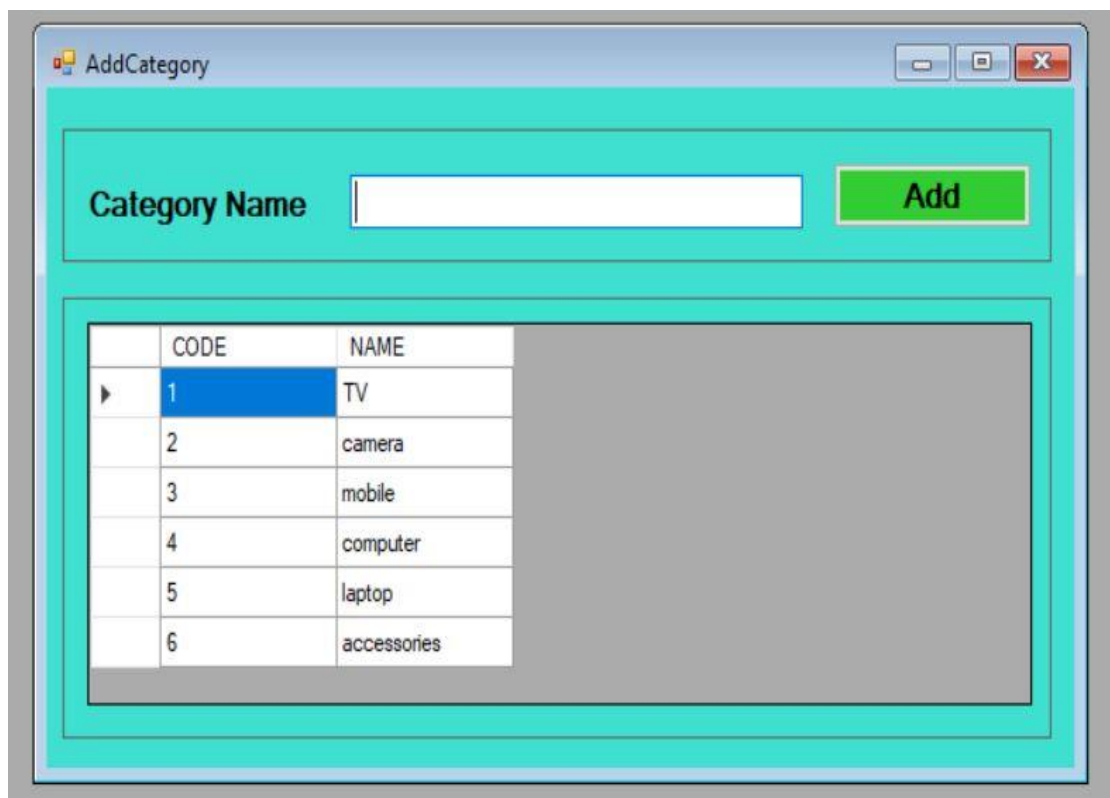
## FLASH FORM



## HOME PAGE



## CATEGORY



# PRODUCT

ADD

PAYMENT

ADD PRODUCT

LIST PRODUCT

SELECT CATEGORY

TV

IMAGE

Select Image

PRODUCT NAME

PRICE

DISCOUNT

DESCRIPTION

ADD PRODUCT

ADD



PAYMENT

ADD PRODUCT

LIST PRODUCT

SELECT CATEGORY

TV

	CODE	CATEGORY	PRODUCTNAME	DETAILS	PRICE	DISCOUNT	IMAGE
▶	6	TV	samsung uhd	qsdvbnihgf	45000	10	
	7	camera	canon eos	okjhv	35000	20	
	8	computer	sony	zxcvbnmasdfwe	74000	15	
	9	laptop	dell	i7 processor 4 gb...	42000	5	








PURCHASE

ADD

PAYMENT

SEARCH PRODUCT

CODE	CATEGORY	PRODUCTNAME	DETAILS	PRICE	DISCOUNT	IMAGE
6	TV	samsung uhd	qsdvbnrhngf	45000	10	
7	camera	canon eos	okjhv	35000	20	
8	computer	sony	zxcvbnmasdfwe	74000	15	
9	laptop	dell	i7 processor 4 gb...	42000	5	
10	camera	ios	qwetyhb	45000	20	

CODE	PRODUCTNAME	PRICE	QUANTITY	TOTAL
------	-------------	-------	----------	-------

CUSTOMER NAME

SHIPPING ADDRESS

PHONE NUMBER

NUMBER OF ITEMS 0

TOTAL AMOUNT 0

PAY

RESET BILL

GENERATED BILL

GADA ELECTRONICS

BILL NO : 13

DATE : 25-09-2019 14

CUSTOMER DETAILS : ty ,asdfgh ,7896541230

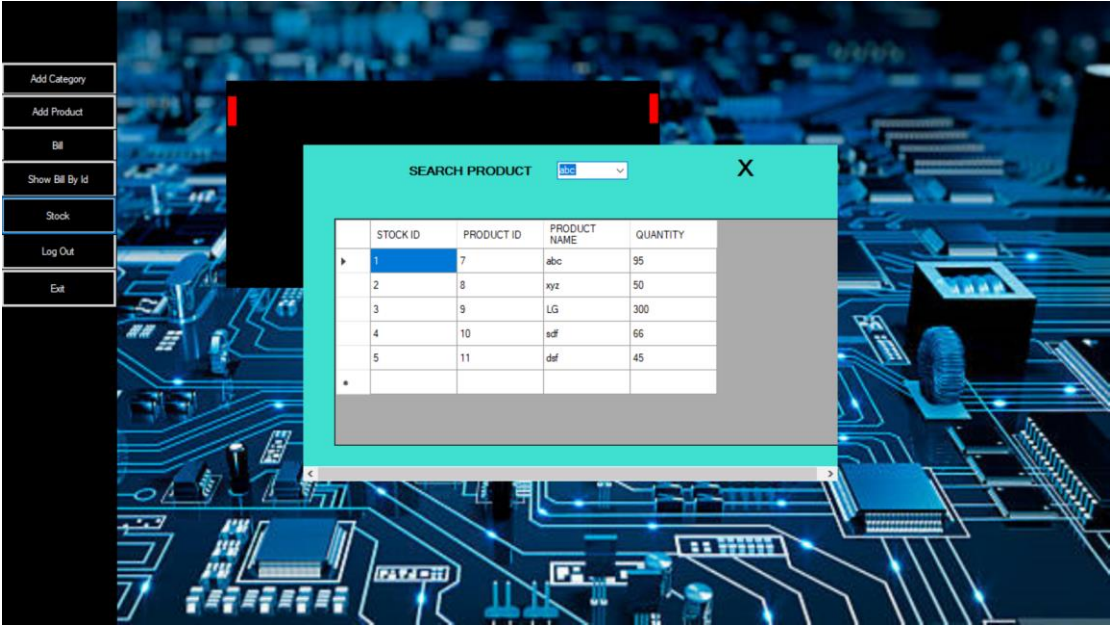
SKU	PRODUCT	PRICE	QUANTITY	TOTAL
11	head phones	1000	1	1000

TOTAL : 1000

PRINT

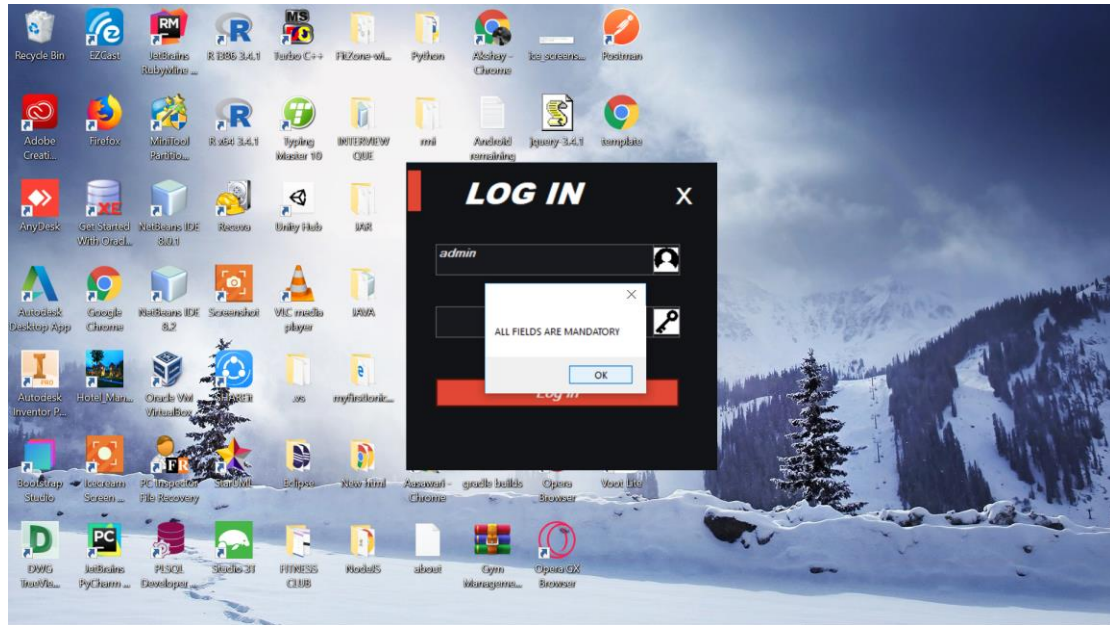


# STOCK

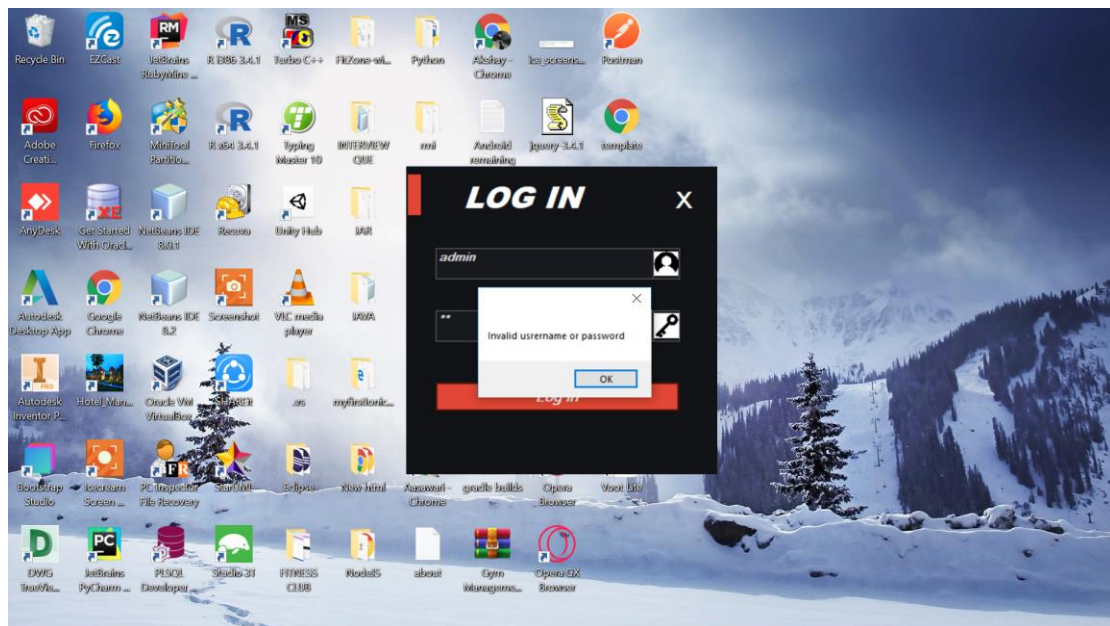


# VALIDATION FORMS

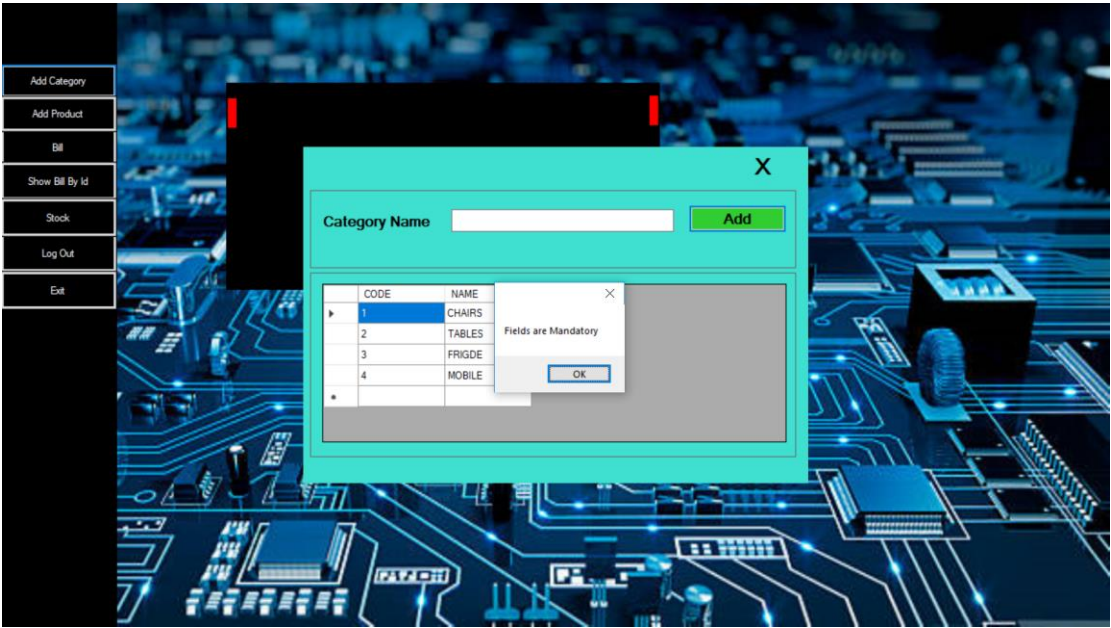
## FIELDS ARE MANDATORY



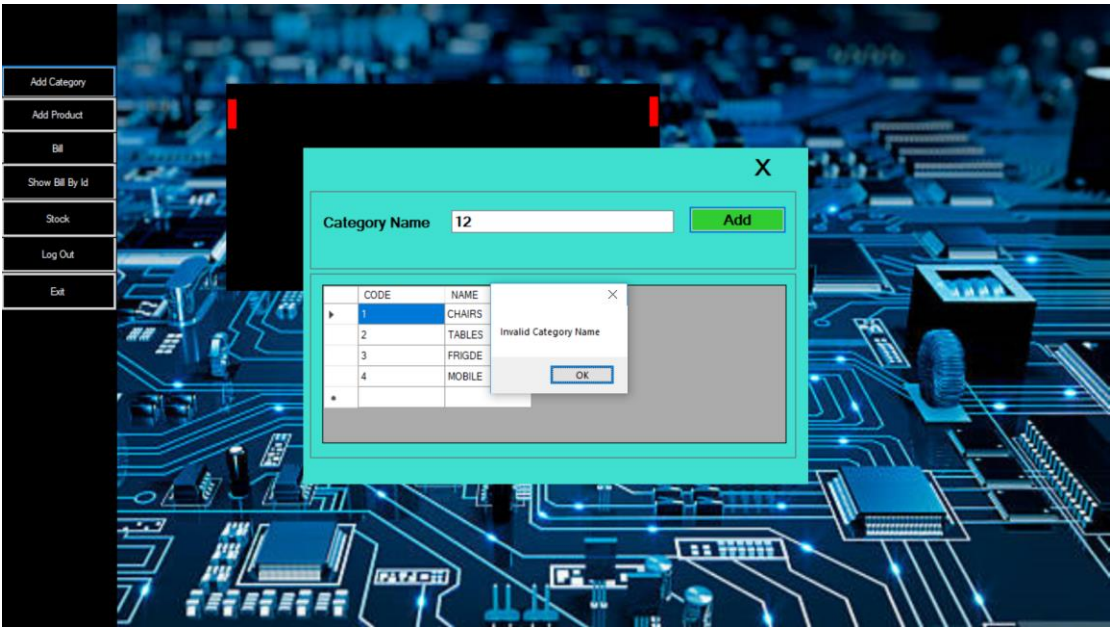
## INVALID LOGIN



# FIELDS ARE MANDATORY

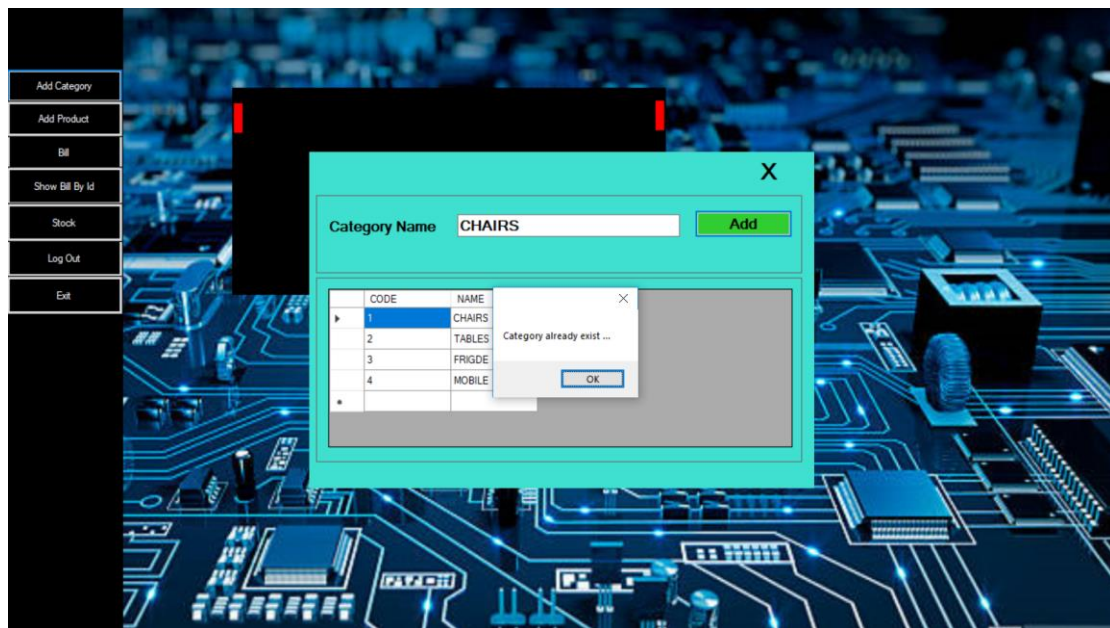


# INVALID CATEGORY NAME

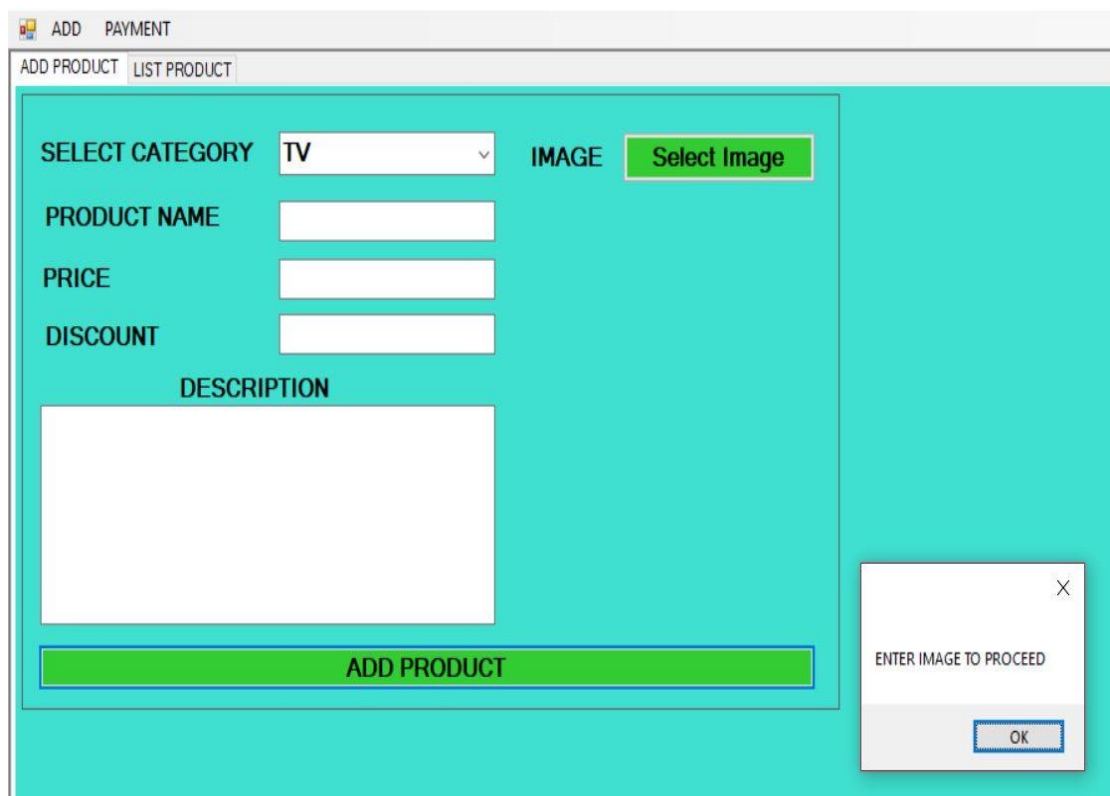




## CATEGORY ALREADY EXIST



## SELECT THE PRODUCT IMAGE TO PROCEED



PRODUCT ADDED

ADD

PAYMENT

ADD PRODUCT

LIST PRODUCT

SELECT CATEGORY

computer accessor

PRODUCT NAME

keyboard

PRICE

500

DISCOUNT

2

DESCRIPTION

tyuikjhgv

IMAGE

Select Image

ADD PRODUCT

Product added successfully !!





OK

ENTER ALL THE REQUIRED FIELDS TO PROCEED  
(PURCHASE)

ADD

PAYMENT

SEARCH PRODUCT

CODE	CATEGORY	PRODUCTNAME	DETAILS	PRICE	DISCOUNT	IMAGE
9	laptop	dell	i7 processor 4 gb...	42000	5	
10	camera	ios	qwetyhb	45000	20	
11	accessories	head phones	wuljc	1000	2	
12	computer access...	keyboard	tyuikjhgv	500	2	

CODE	PRODUCTNAME	PRICE	QUANTITY	TOTAL
12	keyboard	500	3	1500

CUSTOMER NAME

ENTERING ADDRESS

PHONE NUMBER

NUMBER OF ITEMS

3

TOTAL AMOUNT

1500

PAY

RESET BILL

FILL MANDATORY FIELDS





OK

# ENTER VALID PHONE NUMBER TO PROCEED

ADD

PAYMENT

SEARCH PRODUCT

CODE	CATEGORY	PRODUCTNAME	DETAILS	PRICE	DISCOUNT	IMAGE
9	laptop	dell	i7 processor 4 gb...	42000	5	
10	camera	ios	qwetyhb	45000	20	
11	accessories	head phones	wujc	1000	2	
12	computer access...	keyboard	tyukjhgv	500	2	

CODE	PRODUCTNAME	PRICE	QUANTITY	TOTAL
12	keyboard	500	3	1500

ENTER NAME

hritik

ENTER ADDRESS

hgcvhj

ENTER NUMBER

789654123000

NUMBER OF ITEMS 3

TOTAL AMOUNT 1500

PAY

RESET BILL

ENTER VALID PHONE NUMBER





OK

# SELECT QUANTITY OF THE PRODUCT

ADD

PAYMENT

SEARCH PRODUCT

CODE	CATEGORY	PRODUCTNAME	DETAILS	PRICE	DISCOUNT	IMAGE
9	laptop	dell	i7 processor 4 gb...	42000	5	
10	camera	ios	qwetyhb	45000	20	
11	accessories	head phones	wujc	1000	2	
12	computer access...	keyboard	tyukjhgv	500	2	

CODE	PRODUCTNAME	PRICE	QUANTITY	TOTAL
------	-------------	-------	----------	-------

ENTER NAME

ENTER ADDRESS

ENTER NUMBER

NUMBER OF ITEMS 0

TOTAL AMOUNT 0

PAY

RESET BILL

NUMBER OF PRODUCTS WANT TO PURCHASE

ENTER QUANTITY

3

OK


Cancel

# BILL GENERATED WITH PARTICULAR ID

ADD

PAYMENT

SEARCH PRODUCT

CODE	CATEGORY	PRODUCTNAME	DETAILS	PRICE	DISCOUNT	IMAGE
9	laptop	dell	i7 processor 4 gb...	42000	5	
10	camera	ios	qwetyrb	45000	20	
11	accessories	head phones	wujc	1000	2	
12	computer access...	keyboard	tyukfghv	500	2	

CODE	PRODUCTNAME	PRICE	QUANTITY	TOTAL
------	-------------	-------	----------	-------

ENTER NAME

ADDRESS

NUMBER

NUMBER OF ITEMS 0

TOTAL AMOUNT 0

PAY

RESET BILL

BILL GENERATED WITH BILL ID 15

OK

# TEST CASES

ACTION	INPUT	EXPECTED OUTPUT	ACTUAL OUTPUT	TEST RESULT	TEST COMMENT
Launch application	Click on software	Login page	Login page	Pass	Successful
Enter correct username and password	Username: Password:	Home page	Home page	Pass	Display homepage
If the username and password is incorrect	Username: Password:	Home page	Login fail	Fail	Invalid username or password
Add category	Enter category name	Category added	Category added	Pass	Category added successfully
If category already existed	Enter category name	Category added	category already exists	Fail	Entered category already exists
Add Product	Enter product detail	Product added successfully	Product added successfully	Pass	Product added successfully
If all the details are not entered	Enter product details	Product added successfully	Enter all the fields to proceed	Fail	Enter all the fields to proceed
Purchase	Enter customer details	Bill generated	Bill generated	Pass	Bill generated successfully with ** bill ID
If all details are not entered or invalid phone number is provided	Enter customer details	Bill generated	Enter all the required fields. Enter valid phone number	Fail	Bill generated successfully with ** bill ID



# **MAINTENANCE AND**

# **FUTURE ENHANCEMENT**

The future scope of the project circles around maintaining information regarding :

- 1-Can provide more advanced software including several new facilities.
- 2-Can host the platform on online server to make it accessible worldwide.
- 3-Add new admins to log in the system.
- 4-Create some new databases to reduce the overload of the database query.
- 5-Implement the backup mechanism for taking backup of codebase and data base on regular basis on different server.

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