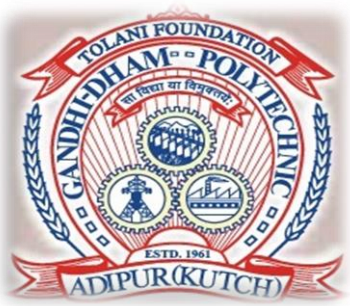
SALES AND INVENTORY SYSTEM

FROM:

HEM GAJJAR (206530307013)

ASHWIN GADHVI (206530307002)



TOLANI FOUNDATION GANDHIDHAM POLYTECHNIC

CERTIFICATE

This is to certify that the IDP based project entitled, "Technostuff Sales And Inventory System" , is a sales and inventory management system that has been successfully completed by Hem Gajjar(206530307013) and Ashwin Gadhvi(206530307013) of, 5th semester of Tolani FG Polytechnic, Adipur

It has been completed under the supervision of Ms. Honey Gurnani (H.O.D) of Computer Department and Mr. Pankaj Gajjar(Client) of Technostuff Corporation , Anjar

Mr. Pankaj Gajjar **Ms. Honey Gurnani**

(Client) **(H.O.D)**

ACKNOWLEDGEMENT

We deeply express our sincere regards to Prof. Honey Gurnani for their expert guidance for completion of our Project work on "”Sales and Inventory System”."

We are very thankful to the department of Computer Engineering. For providing us needed help for carrying out test for our program. We are also thankful for providing their valuable help we thank the staff members and our colleagues for co-operating with us during our project period.

We are thankful to those freeware resources with the use which we were able to finalize our application model.

Lastly, we are thankful to Tolani. F. G Polytechnic library for the books provided to us.

Hem Gajjar.
Ashwin Gadhvi.

ABSTRACT

This Project is mainly developed for **Technostuff Sales And Inventory System** . The Front-end of this Project is **Microsoft VB.NET 2017** & Back-end is **SQL Server 2008**.

Technostuff Sales And Inventory System is complete end to end solution to cover all aspects of Customers day to day activity and Property buying selling procedure for small and large organization.

The basic objective of developing this project is:

- Maintain Customer Detail using Customer Master , Products in Product Master and so on.
- Existence of customer entry for Sales is required.
- System has and Authentication System, each user must be identified by login id and strict password policy is applied to secure the system.

INDEX

1. Problem Identification

1.1 Problem Definition

1.2 Problem Identification

1.3 Process Modification

2. Whole Industrial Process

2.1 Problems in the existing system

2.2 Problem Study

3. Problem Solution Outline

3.1 E-R Diagram

3.2 Data Flow Diagram

3.3 Data Dictionary

3.4 Hardware and Software Requirements

3.5 Form Layout

CHAPTER 1:

Problem Identification and Definition, Process Modification

We identified so many Problems in the current process, which are notified below: -

- **Sales And Inventory System** is maintaining client and other vendor related data manually. So, we notified that in this system problems can occur. And we find that Dealer of this client records is difficult because information is stored on paper & when update is needed for information like client name, address, contact number correction is not possible & leads to excessive erasing. Also to maintain these pages is very difficult.
- Only entry is performed on paper when bill given by Admin. Sometimes this process carries out problems.
- Analysis of the client requirement and client need sometime lead to mistake.

Needed Modifications in Process:-

- Client Information storage needs maintenance in very elegant manner, and this process needs much care by modifier.
- Bill Receipt should be given to client instead of only records maintenance on paper.
- Day By day buying and sealing Process needs storage in perfect manner & also option is needed for update.

Data & Fact Gathering Technique: -

- In order to understand the problems, we carried out in Client search on the process of the wedding planning by visiting and observing keenly.
- We organized **Group discussion** with Vimal P Vaniya (External Guide) and they clearly explained us the process of **Sales And Inventory System**

CHAPTER 2:
The Whole Industrial Process and Problem Study

So, now we have to study process & problems of this System.

Processes in Brief: -

- Client information is stored manually and maintenance is on Paper.
- Visitor's information is also stored manually.
- Day to Day process is maintained in the form paper Records.
- As described upper all processes are manual.

Detailed Problem Study: -

- Client information Dealer is difficult. As data retrieval is on paper.
- To take care of all manual forms in which Student information is written & searching of any student information from these forms is difficult.
- Also searching of Category wise information of land is difficult
- Managing the billing by date wise is difficult

Any change in Client information is not updated.

- If any change in client information likes contact no., Name, Address etc. is not properly reflected in original form.

Technician Details: -

- Technician information is store manually, as the data retrieval when required becomes difficult.
- Searching of the data become difficult

CHAPTER 3:

The Problem Solution Outline

- Solution
- Feasibility Study
- Hardware & Software Requirements
- E-R Diagram
- Data Flow Diagram (DFD)
- Use Case
- Form Layout
- Data Dictionary
- Report Layout

Solutions are as below:

Solutions: -

- The new system allows users to provide details of their properties that are for sale. It also allows users to search for properties that are for sale. Users can also add their requirements regarding the product they want to buy. The business goal for the application is to increase efficiency of registration process and powerful search facilities and capable of matching property with clients.

Why Feasible?

- Economically this solution is feasible because solution's budget is feasible for Service center because already PC is available, and implementation of this software will be beneficial in cost.
- Technically feasible because we can implement problem solutions & also staff is able to work with this computerized system. Existing software is enough for this software implementation.
- Operationally feasible because this system can provide right information at right time in terms of technical performance as compared to existing system & also staff is agree with this software and no any reconstruction or retraining is needed.

HARDWARE REQUIREMENTS:-

Processor	:	Pentium or equivalent or higher
RAM	:	512 MB or more
Hard disk	:	150 GB or more
Monitor	:	VGA/SVGA
Keyboard	:	104 Keys
Mouse	:	Optical Mouse

SOFTWARE REQUIREMENTS: -

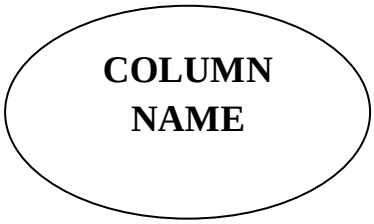
Operating System	:	Windows XP/ Windows 7/ Windows 8
Front End	:	VB.NET (VB) (Visual Studio 2017)
Back End	:	SQL Server 2018

System Design:

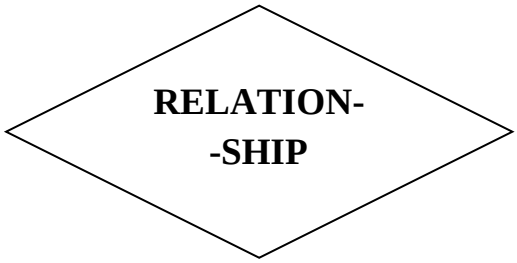
Before going towards system design, we have to understand some on paper concepts as shown in below diagrams: -

E-R diagram (Entity – Relationship):-E-R diagrams are used to show Table & columns of that tables & relationship between those Tables.

: **Specifies Table (Represents entity set)**



: **-Specifies Column Name (Represents Attributes)**



: **Specifies Relation amongst entities of Tables**

: **Links Tables (Links attributes to entity sets and entity sets to Relationship)**

Entities: - An entity is a person, place, thing of organization about which data are captured, stored or processed.

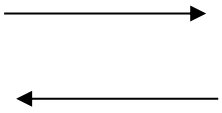
Attributes: - Various types of data that describe an entity are known as attributes.

DATA FLOW DIAGRAM: - DFD diagrams provide a logical model of the system & show the flow of data and the flow of logic involved .DFD shows the passage of data through the system .DFD describes that WHAT takes place in an existing system, NOT HOW the activities are accomplished.

The top – level DFD diagram is often called a CONTEXT DIAGRAM.

Symbols: -

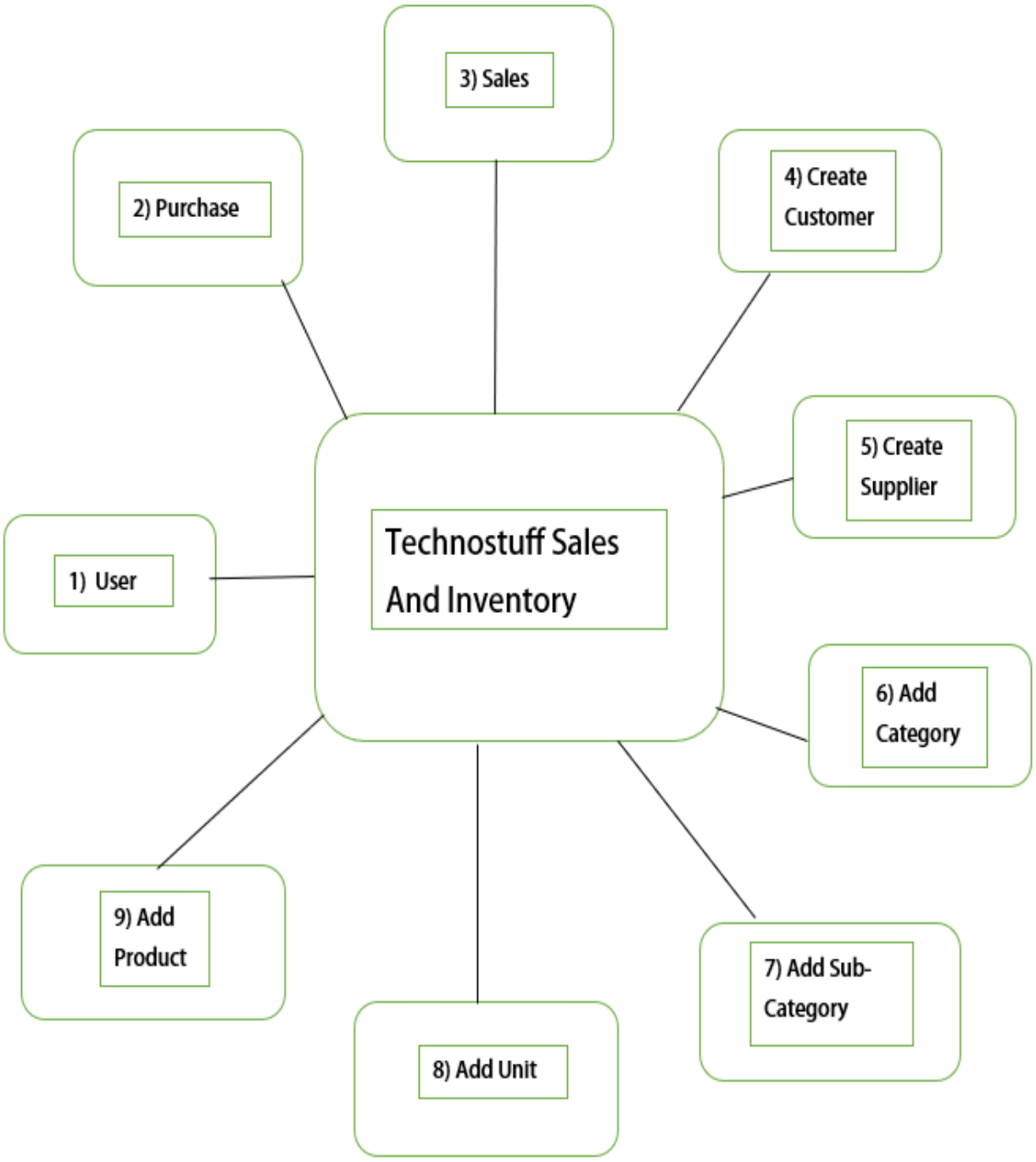
External User



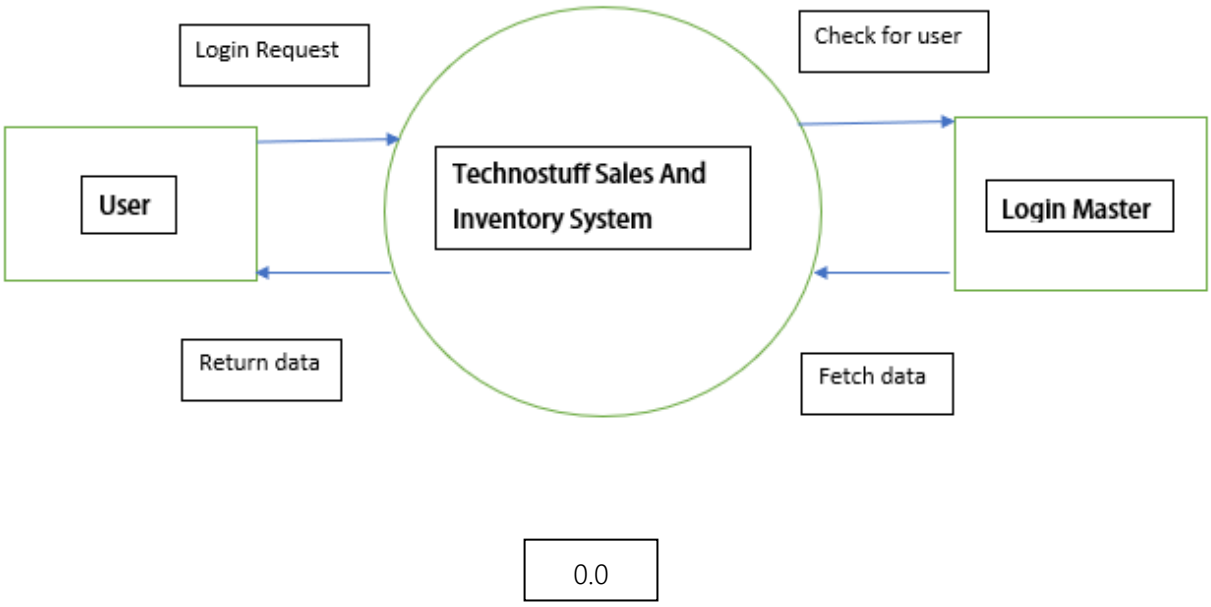
Flow of Data

Process

Data Store (TABLE)

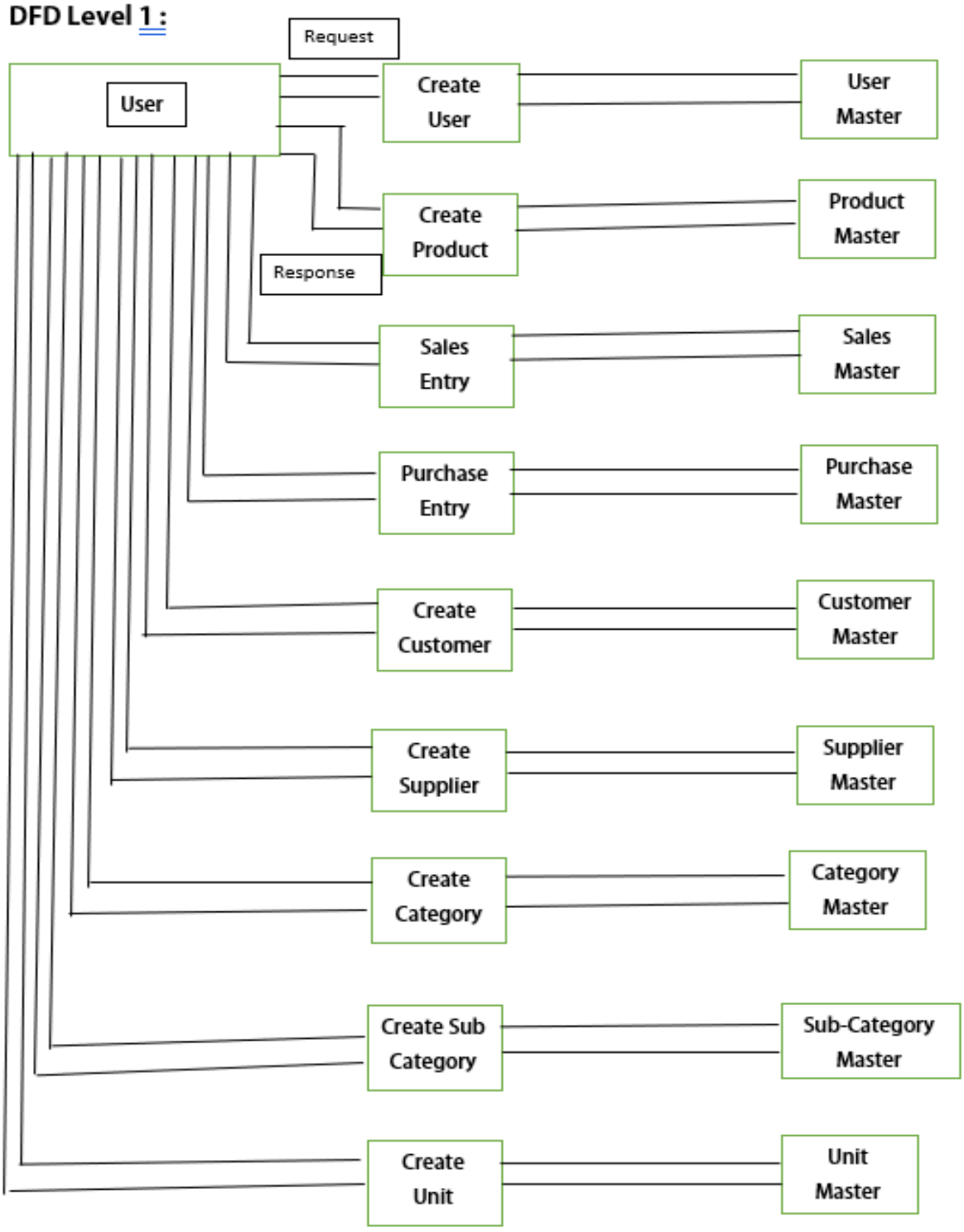

3) Sales
2) Purchase
4) Create Customer
5) Create Supplier
Technostuff Sales And Inventory
1) User
6) Add Category
9) Add Product
7) Add Sub-Category
8) Add Unit

DFD Level 0:



0.0

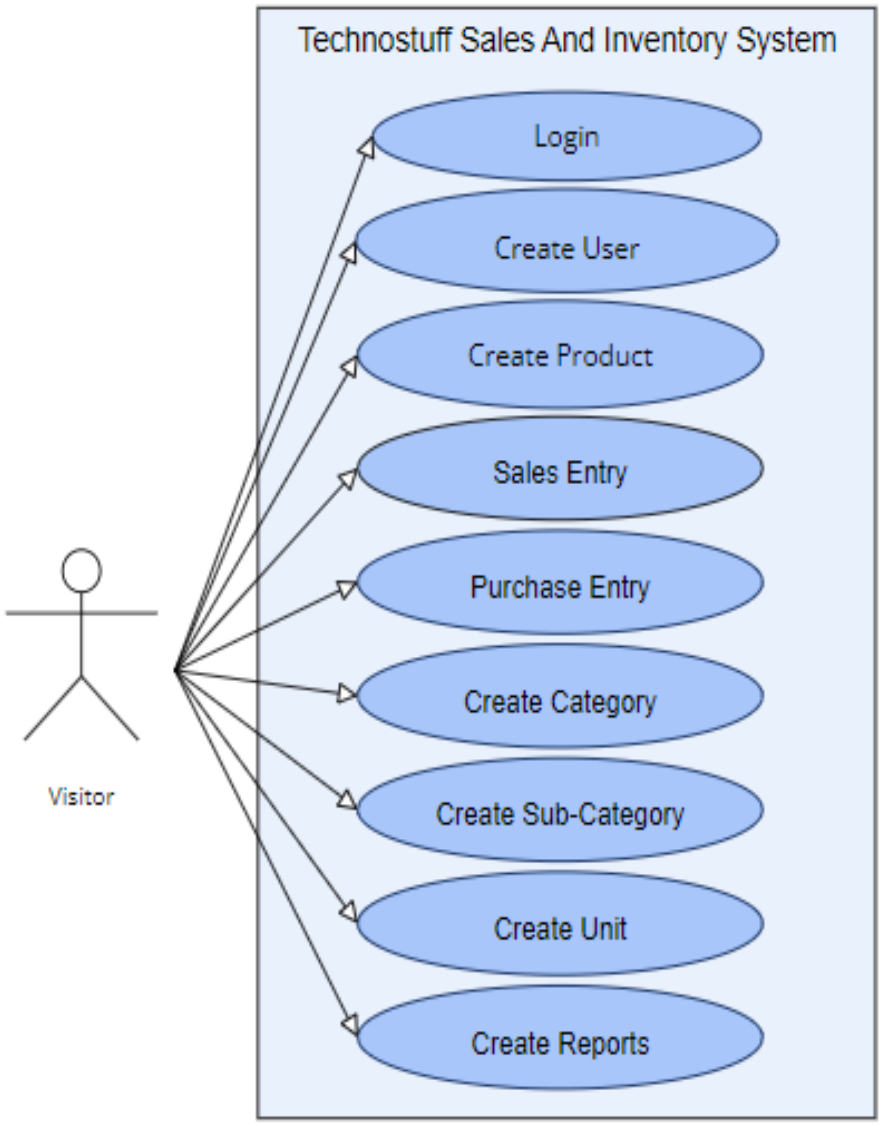
DFD Level 1 :



1.0

Use Case:-A use case diagram at its simplest is a representation of a User's interaction with the system and depicting the specification of a use case .A use case diagram can portray the different type of user of a system and the various ways that interact with the system

Use Case Diagram



Advantages of New System: -

❖ Computerized Database for Client & Complain information: -

- Option for update, add, and delete new courses.
- Stored data as per requirements.
- Option for search by billon, name,
- User can search the property Area wise
- User can post the his property for sale
- User can apply for the loan
- All the will be store in the data base
- User can also request for the new password if he forget the old one

Data Dictionary

❖ Following are the designs of the masters in backend:-

Login Master:

Column Name	Data Type	Allow Nulls
u_id	int	☐
u_name	varchar(30)	☐
u_pass	varchar(18)	☐
		☐

Category Master:

Column Name	Data Type	Allow Nulls
ct_id	int	☐
ct_name	varchar(50)	☐
		☐

Sub-Category Master:

Column Name	Data Type	Allow Nulls
sc_id	int	☐
category_name	varchar(20)	☐
company_name	varchar(30)	☐
product_type	varchar(30)	☐
		☐

Unit Master:

Column Name	Data Type	Allow Nulls
u_id	int	☐
u_name	varchar(30)	☐
		☐

Customer Master:

Column Name	Data Type	Allow Nulls
c_id	int	☐
c_name	varchar(30)	☐
c_contact	bigint	☐
c_email	varchar(30)	☐
c_address	varchar(50)	☐
c_gst	varchar(50)	☐
		☐

Supplier Master:

Column Name	Data Type	Allow Nulls
s_id	int	☐
s_name	varchar(30)	☐
s_contact	bigint	☐
s_address	varchar(50)	☐
gst_number	varchar(50)	☐
s_email	varchar(50)	☐
		☐

Product Master:

Column Name	Data Type	Allow Nulls
p_id	int	☐
p_category	varchar(30)	☐
p_company	varchar(30)	☐
p_type	varchar(30)	☐
p_cgst	real	☐
p_sgst	real	☐
p_hsn	int	☐
p_purch_unit	varchar(50)	☐
p_sales_unit	varchar(50)	☐
p_purch_rate	real	☐
p_sales_rate	real	☐
p_stock	real	☐
		☐

Account Master:

Column Name	Data Type	Allow Nulls
id	int	☐
l_name	varchar(50)	☐
l_id	int	☐
l_amt	real	☐
l_type	varchar(50)	☐
l_desc	text	☐
l_slip	int	☐
		☐

Configuration Master:

Column Name	Data Type	Allow Nulls
inv_num	int	☐
v_no	int	☐
		☐

Sales Detail Master:

Column Name	Data Type	Allow Nulls
id	int	☐
in_no	varchar(50)	☐
p_cat	varchar(50)	☐
p_com	varchar(50)	☐
p_type	varchar(50)	☐
p_qty	real	☐
p_unit	varchar(50)	☐
p_rate	real	☐
p_cgst	real	☐
p_sgst	real	☐
p_hsn	varchar(50)	☐
p_tot	real	☐
p_gst_amt	real	☐
p_id	int	☐
in_date	date	☐
		☐

Sales Summary Master:

Column Name	Data Type	Allow Nulls
id	int	☐
c_name	varchar(50)	☐
c_contact	bigint	☐
in_date	date	☐
in_no	varchar(50)	☐
pay_mode	varchar(50)	☐
in_tot	real	☐
gst_tot	real	☐
lab_char	real	☐
r_off	real	☐
l_slip	int	☐
in_narr	text	☐
		☐

Purchase Detail Master:

Column Name	Data Type	Allow Nulls
id	int	☐
in_no	varchar(50)	☐
p_cat	varchar(50)	☐
p_com	varchar(50)	☐
p_type	varchar(50)	☐
p_qty	real	☐
p_unit	varchar(50)	☐
p_rate	real	☐
p_cgst	real	☐
p_sgst	real	☐
p_hsn	varchar(50)	☐
p_tot	real	☐
p_gst_amt	real	☐
p_id	int	☐
		☐

Purchase Summary Master:

	Column Name	Data Type	Allow Nulls
🔑	id	int	☐
	s_name	varchar(50)	☐
	s_contact	bigint	☐
	in_date	date	☐
	in_no	varchar(50)	☐
	pay_mode	varchar(50)	☐
	in_tot	real	☐
	gst_tot	real	☐
	lab_char	real	☐
	r_off	real	☐
	l_slip	int	☐
	in_narr	text	☐
			☐

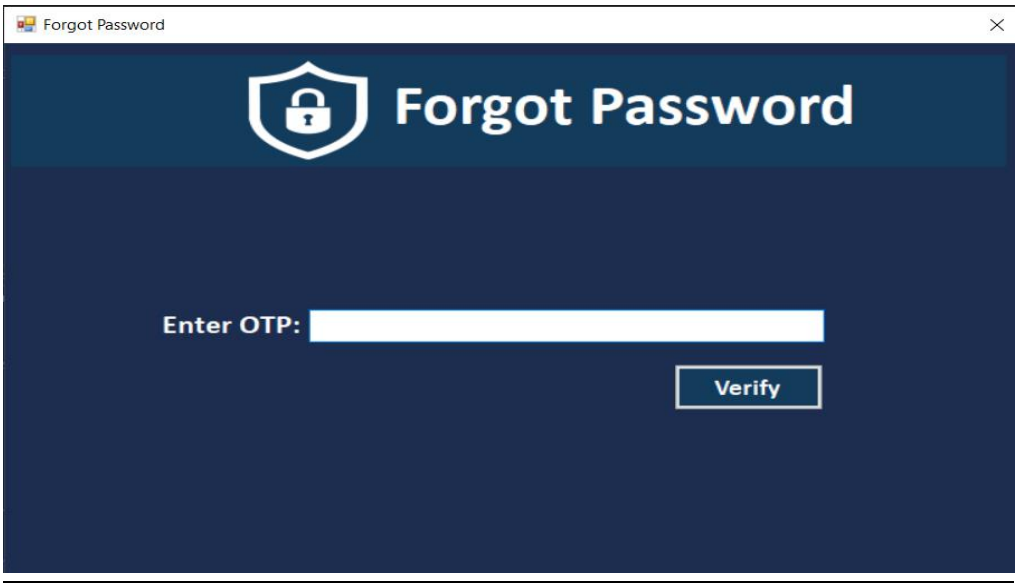
❖ Following are the designs of the masters in front-end: -

Login Master:

Following is the login page which will appear when we will start the Project. In order to login successfully we need to enter valid username and password. You can click on FORGOT PASSWORD? If you forgot your password (please enter your username then click on FORGOT PASSWORD?)

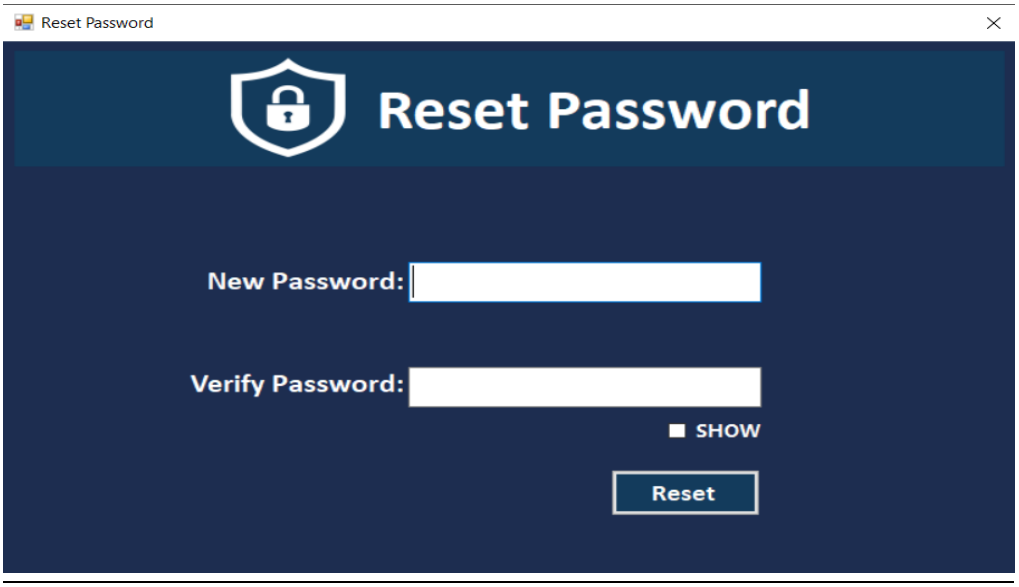
Forgot Password:

Once you click on FORGOT PASSWORD? This page will open up. Now check the email address of the admin in order to get the OTP(Please check the spam folder as well).Once you have the OTP please enter it in the textbox on this page. If you have entered correct OTP then you will be redirected to Reset Password Page.



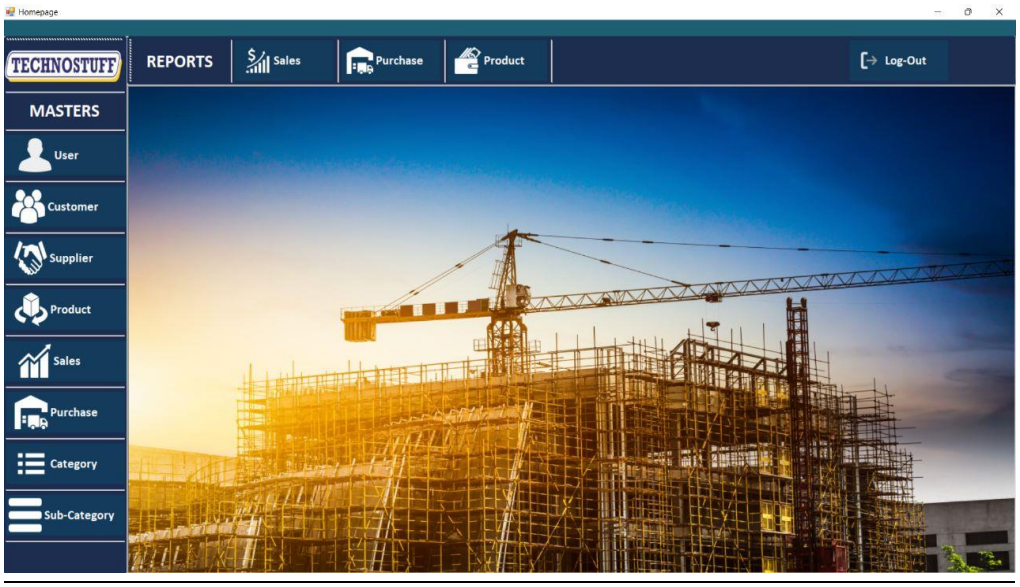
Reset Password:

If you have entered correct OTP then you will get this page. Here you can reset your password for the corresponding user. Make sure you have written the same password in New Password textbox and Verify Password textbox. Once you are done entering your new password click on Reset. Once you have clicked reset you will be redirected to login page.



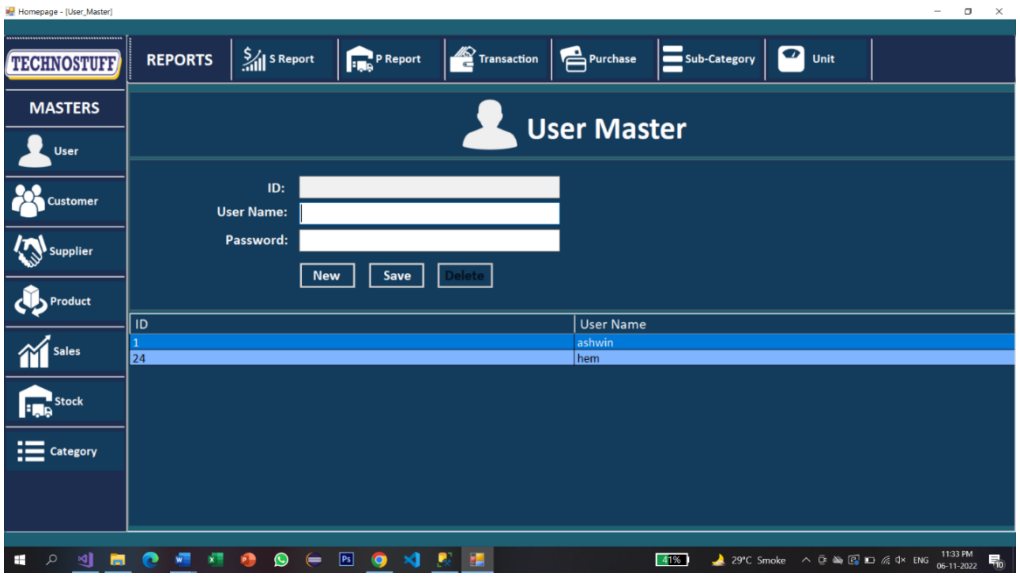
Homepage:

This is our homepage from where we can access all our pages. This page will open up if you've logged in successfully. You can see there are majority of masters on the left side and there are reports on the top-bar.



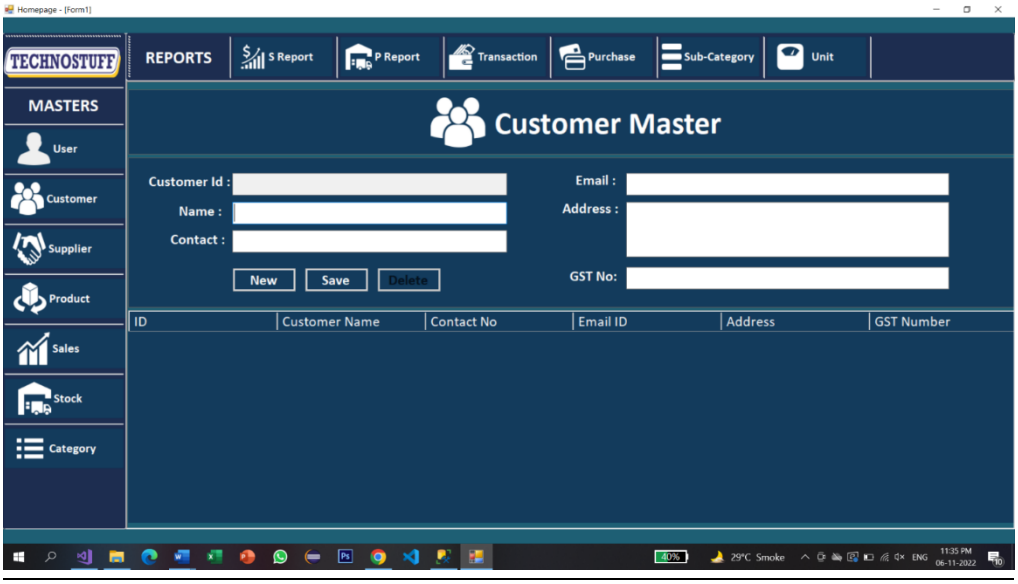
User Master:

In user master you can create user by entering appropriate data. To Add a user fill all the fields and click on save button . To delete a record click on the record in the grid and click delete button. To update again click on the record in grid and update the data and click save button.



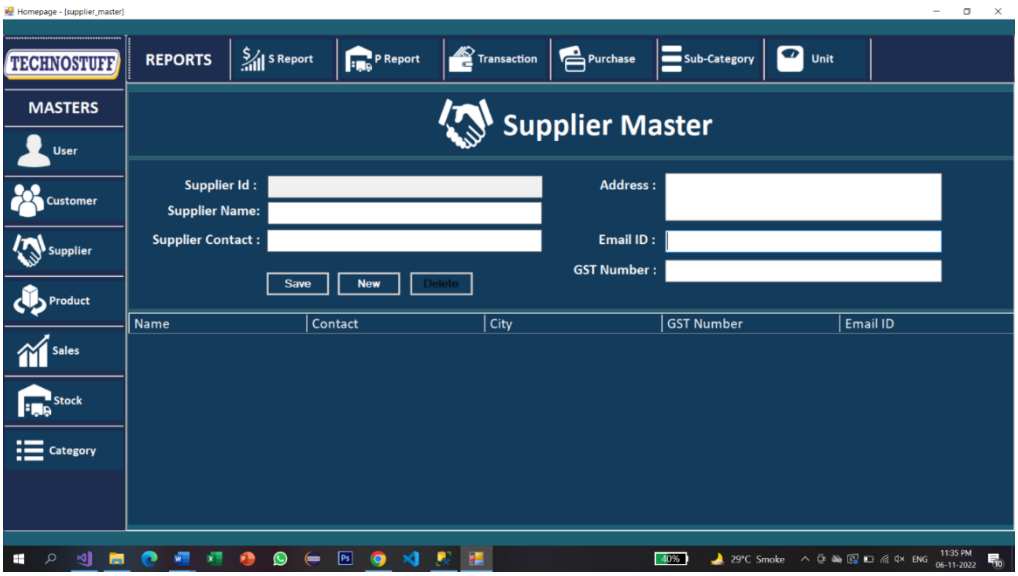
Customer Master:

In customer master you can create customer by entering appropriate data. To Add a customer fill all the fields and click on save button . To delete a record click on the record in the grid and click delete button. To update again click on the record in grid and update the data and click save button.



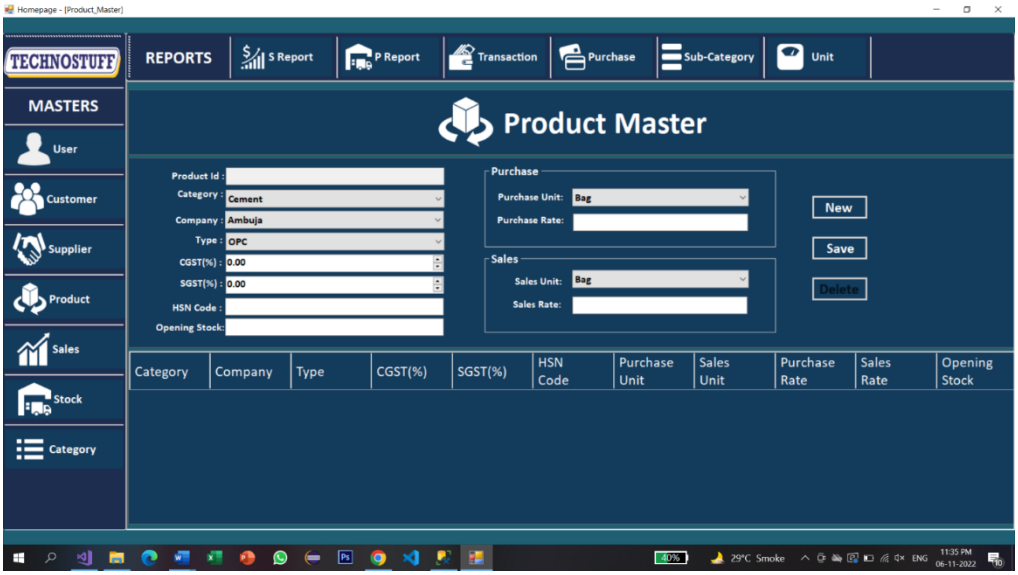
Supplier Master:

In supplier master you can create supplier by entering appropriate data. To Add a supplier fill all the fields and click on save button . To delete a record click on the record in the grid and click delete button. To update again click on the record in grid and update the data and click save button.



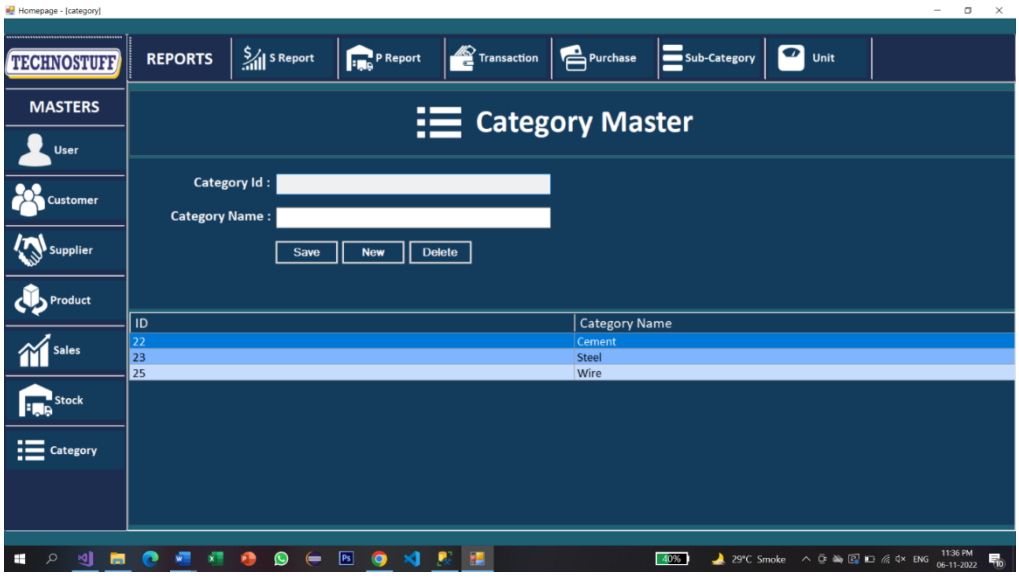
Product Master:

In product master you can add a product by entering appropriate data. To Add a product fill all the fields and click on save button . To delete a record click on the record in the grid and click delete button. To update again click on the record in grid and update the data and click save button. Category and Sub-Category will be automatically loaded in the corresponding combo box.



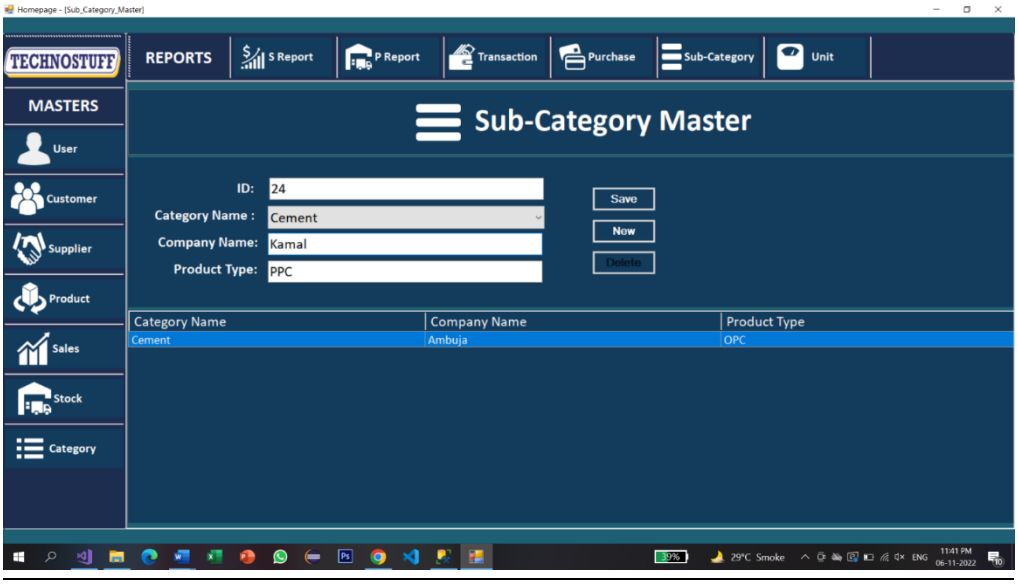
Category Master:

In category master you can add a category by entering appropriate data. To Add a category fill all the fields and click on save button . To delete a record click on the record in the grid and click delete button. To update again click on the record in grid and update the data and click save button.



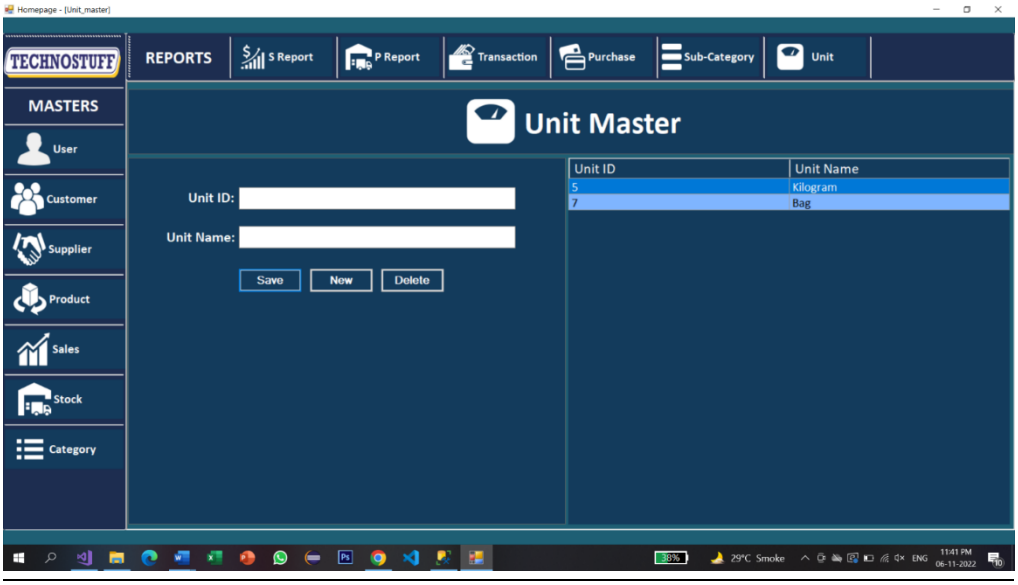
Sub-Category Master:

In sub-category master you can add a sub-category by entering appropriate data. To Add a sub-category fill all the fields and click on save button . To delete a record click on the record in the grid and click delete button. To update again click on the record in grid and update the data and click save button. Category will be automatically loaded in the corresponding combo box.



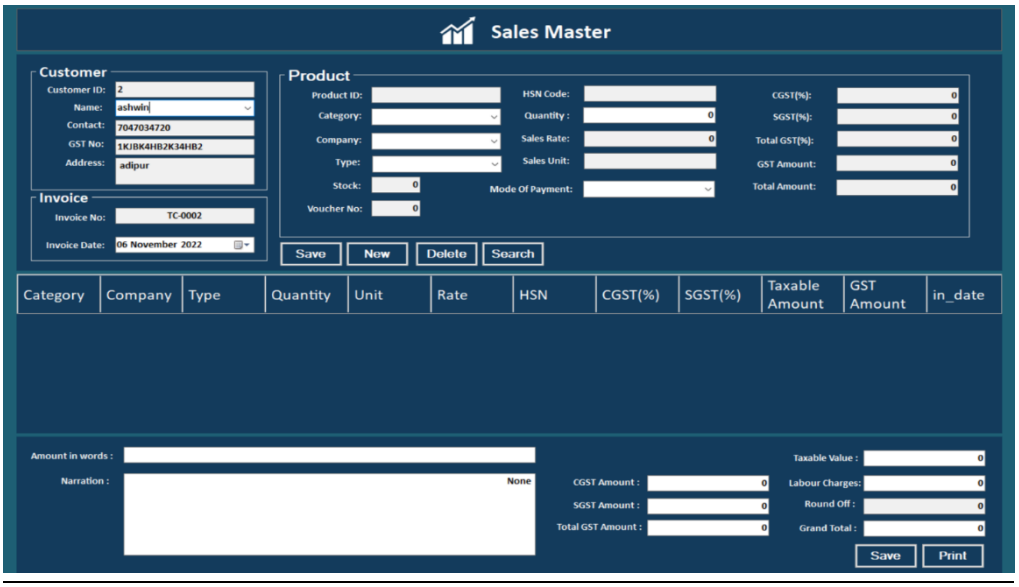
Unit Master:

In unit master you can add a unit by entering appropriate data. To Add a unit fill all the fields and click on save button . To delete a record click on the record in the grid and click delete button. To update again click on the record in grid and update the data and click save button.



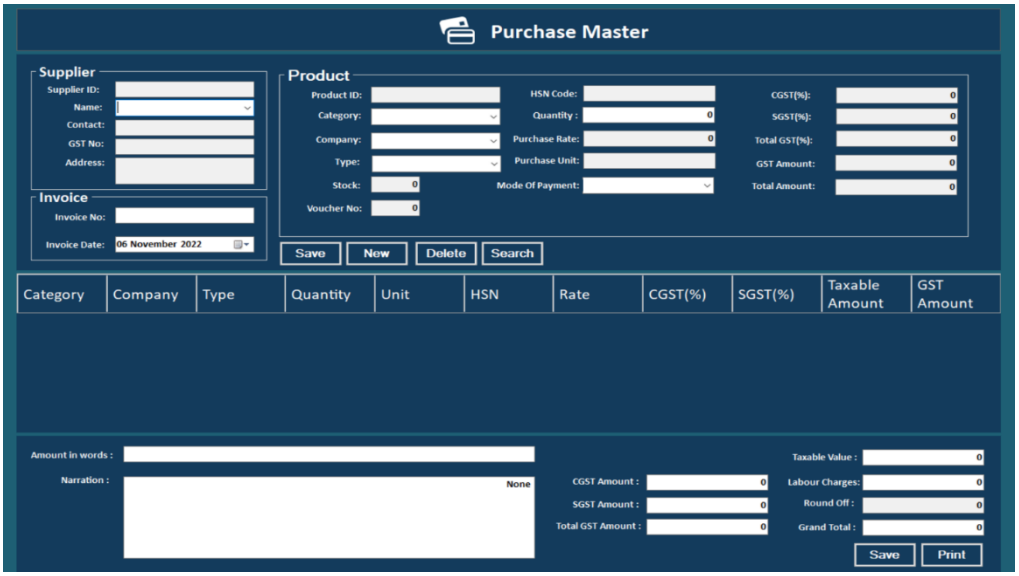
Sales Master:

Sales Master is used when we want to sell a product. Invoice number will be loaded automatically. You must select a valid customer from the combo box. Then you need to select a valid product. Now to add a record in sales Summary and Sales Detail click on save button. To delete a record, click on the record in the grid and click delete button. To search for an invoice, click on search button and enter appropriate data. To save an invoice Click on save button underneath the grid.



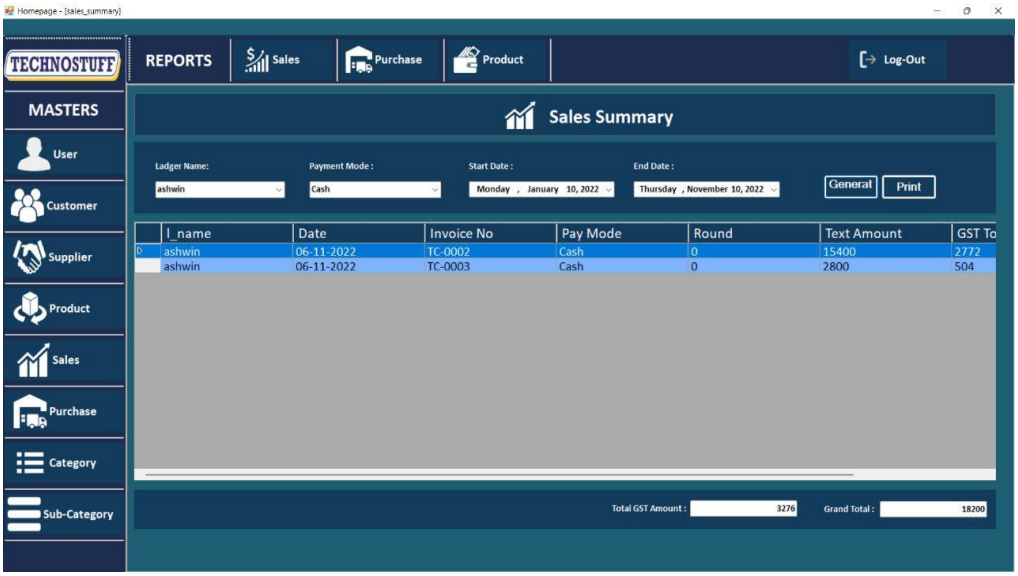
Purchase Master:

Purchase Master is used when we want to purchase a product. You have to enter invoice number manually. You must select a valid supplier from the combo box. Then you need to select a valid product. Now to add a record in purchase Summary and purchase Detail click on save button. To delete a record, click on the record in the grid and click delete button. To search for an invoice, click on search button and enter appropriate data. To save an invoice Click on save button underneath the grid.



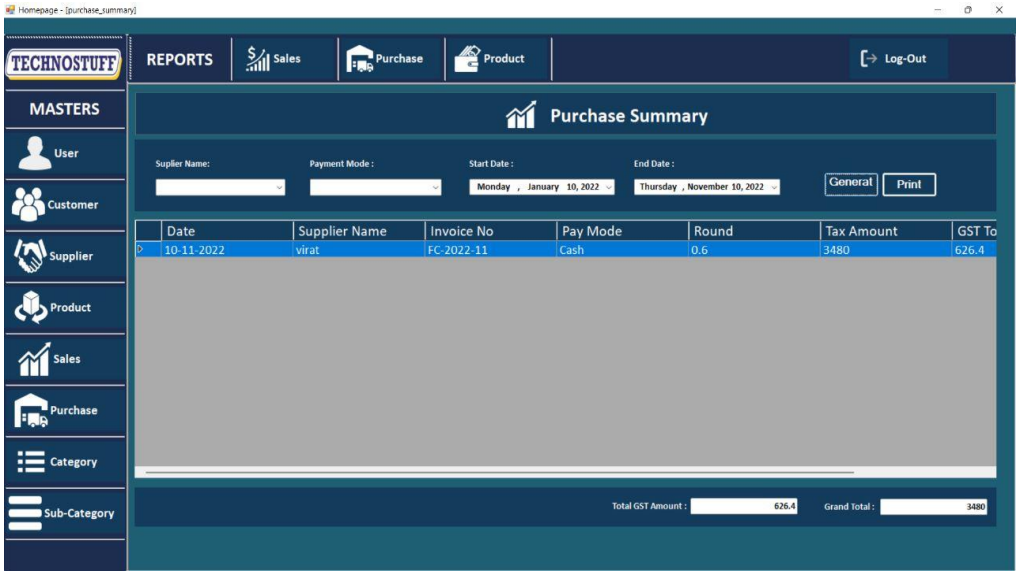
Sales Summary:

A sales summary report details all your business's sales activities and provides insight into what your company should do differently. Here we can view all the invoice detail and filter them based on invoice-date, ledger and payment mode. If you select your filter and click on generate button the grid will display all the records of sales summary according to the filter applied. Now if you double click on a record in grid, you will be redirected to the corresponding invoice in sales master. If you will select a record and click print button it will give you print preview for the report and from there you can print the report finally.



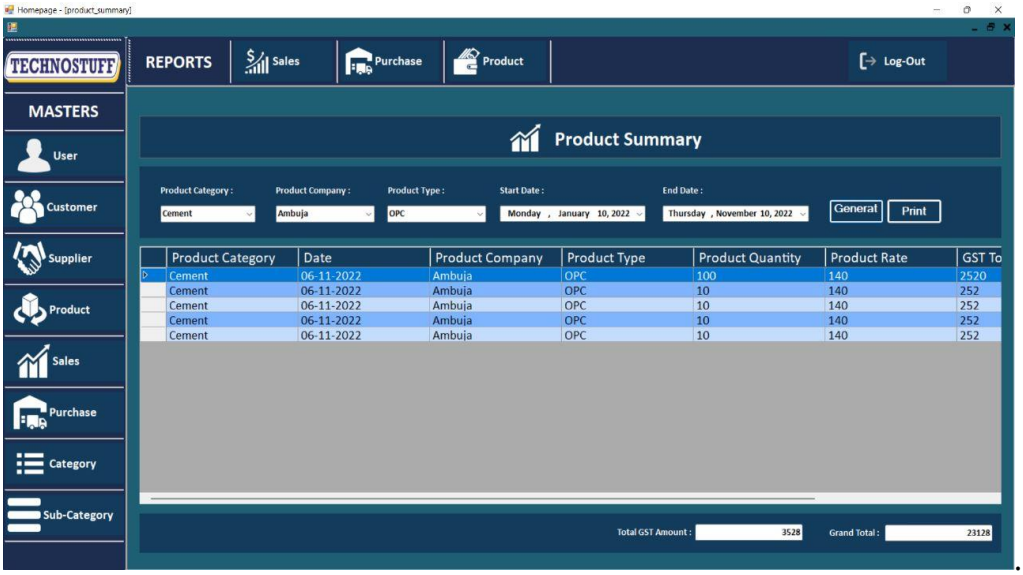
Purchase Summary:

The Purchasing Summary Report shows a summary of items purchased from a specific supplier or from all suppliers. The report shows the quantity received, the current stock, and the quantity on order. Here we can view all the invoice detail and filter them based on invoice-date, ledger and payment mode. If you select your filter and click on generate button the grid will display all the records of purchase summary according to the filter applied. Now if you double click on a record in grid, you will be redirected to the corresponding invoice in purchase master. If you will select a record and click print button it will give you print preview for the report and from there you can print the report finally.



Product Summary:

The product summary report shows you the product details like purchase rate, sales rate, category ,company, type and quantity. Here we can see the records of all the products in the system. To fetch particular records we can filter them based on category ,company ,type and date.Once you have selected the filter click on generate button and you will have the records based on the filter.Now click on the record and press print button which will redirect you to a print preview page from where you can finally print the report


Homepage - [product_summary]
TECHNOSTUFF
REPORTS
Sales
Purchase
Product
Log-Out
MASTERS
User
Customer
Supplier
Product
Sales
Purchase
Category
Sub-Category
Product Summary
Product Category :
Cement
Product Company :
Ambuja
Product Type :
OPC
Start Date :
Monday , January 10, 2022
End Date :
Thursday , November 10, 2022
Generat
Print
Product Category
Date
Product Company
Product Type
Product Quantity
Product Rate
GST To
Cement 06-11-2022 Ambuja OPC 100 140 2520
Cement 06-11-2022 Ambuja OPC 10 140 252
Cement 06-11-2022 Ambuja OPC 10 140 252
Cement 06-11-2022 Ambuja OPC 10 140 252
Cement 06-11-2022 Ambuja OPC 10 140 252
Total GST Amount :
3528
Grand Total :
23128

Conclusion

Automation is now widely used because of its efficiency and accuracy. It helps to perform task in an easy way with less time consumed. Some companies are becoming fully automated while others strive for the similar setting. This allows a business to be more competitive. In business like merchandising, sales and inventory system plays an important role. It is used to track all the transactions made by the business and responsible for monitoring the items supplies. All the business transactions must be properly recorded and must be fully secured by password.So, the "Sales and Inventory System" allows you to manage your stocks, purchase, and sales along with its reports. It also allows you to add product, category, sub-category, customer, supplier and unit which will be reflected onto the pages for convenience. Benefit of it is that we don't have to enter the details of the same customer, product or supplier repeatedly , we can just add it once and use it repeatedly because it is loaded automatically onto the pages. This saves the user's time to enter each and every detail of the customer, product, supplier etc. It also provides summary reports like sales summary report , purchase summary report and product summary report which will give you complete information about the sales , purchase and stock of a product respectively. We can also print those reports after having a print preview of it.

A computerized system is the best solution and most innovative answer for their needs. Sales and inventory system of stocks that are done manually actually requires a lot of time and effort. And using a computerized system as an implementation of computer technology would make it more advantageous. Using this, the employee will have a better performance and attend to the customer's needs better. The system will provide an easier way of doing the sales and inventory of products.

By using a computerized system, the processes of the business had been simplified, improved and modernized resulting to a more productive, effective and less expensive operating expenses. The proposed system had met their stated objectives. It has been an instrument to conduct faster sales transactions and kept track of all the records. The updating of stocks in the inventory were also efficient that resulted to accurate records. Conflicts and confusions were also avoided because the system had reduced the existence of the bulk of papers for the records of the business. And lastly, itis foreseen that this will make the employees more effective that will make it more competitive with their rivals.

STUDENT'S SELF APPRAISAL FORM FOR IDP PART-I					
	Asa IDP Group	**A**	**B**	**C**	**D**
1	All Students of group understood and agreed on how the whole project was broken down into sub-tasks.				
2	Work was distributed according to the skills and knowledge and capacity of each student.				
3	All Students were clear about the time frame and their own responsibilities.				
4	All students involved understood that their work would contribute to the group's success.				
5	Individual difficulties experienced by individuals were discussed in the group and other students helped to resolve the difficulties.				
	The Task Execution	**A**	**B**	**C**	**D**
6	The work was perfectly & clearly distributed among all students.				
7	The timing and sequencing of sub-tasks done to progress stage by stage.				
8	Survey and Data collected were organized systematically for later use.				
9	On-going checking throughout the process was made to ensure that everything was on the right track.				
10	Appropriate corrective measures were taken to handle unexpected problems.				
11	Thequalityofworkproducedwasassessedregularlyduringtheprocessandalsoat the end.				
12	Systematic Survey and Literature study done.				
	My Rollin the IDP Group	**A**	**B**	**C**	**D**
13	**I tried my level best to accomplish the part I taken and in time.**				
14	**I tried my level best to complete IDP and produce good quality Solution.**				
15	**I felt strongly that the group success is my own success. I feel that this**				
16	**IDP is a Real life Problem.**				
17	**I learned from other students of the Group.**				
	Marking: A=Strongly in favor , B=Moderately in favor , C=Not Much ,D=Not at all				