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ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

ಬೆಳಗಾವಿ, ಕರ್ನಾಟಕ

A DBMS MINI-PROJECT REPORT

ON

"E-COMMERCE WEBSITE"

Submitted to Visvesvaraya Technological University in partial fulfilment of the requirement for the award of Bachelor of Engineering degree in Computer Science and Engineering.

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National Education Society ®

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CERTIFICATE

This is to certify that the DBMS - MINI project entitled

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ABSTRACT

This project titled **"E-commerce Website",** is designed with the motive of maintaining all the database of the concern. The basic aim of the project is to develop a system which is very simple, user friendly, easily retrievable, and simple access.

The project has been developed using HTML/CSS/Bootstrap as front end and MySQL Workbench as back end for the E-commerce Website. In today's fast-changing business environment, it is extremely important to be able to respond to client needs in the most effective and timely manner. If your customers wish to see your business online and have instant access to your products or services.

This project is insight into the design and implementation of an E-commerce Website. The primary aim of this is to improve accuracy and enhance safety and efficiency in the teleordering.

ACKNOWLEDGEMENT

On presenting the Database Management Systems Mini-Project report on E-commerce Website, we feel great to express our humble feelings of thanks to all those who have helped us directly or indirectly in the successful completion of the project.

We would like to thank our respected guides **S. Sathyanarayana** Dept. of CS & E, and **Mrs. Sushma R B** Dept. of CS & E, who helped us a lot in completing this task, for their continuous encouragement and guidance throughout the project.

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We are grateful to Department of Computer Science and Engineering and our institutional Jawaharlal Nehru College of Engineering and for imparting us the knowledge with which we can do our best.

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CHAPTER 1

INTRODUCTION

1.1 OVERVIEW OF DBMS

A Database management system, or DBMS is a software designed to assist in managing and utilizing large collection in data, and the need of such system, as well as their use, is growing rapidly. [1]The alternative to using a DBMS is used to hoc approaches that do not carry over from one application to another.

The area of the Database Management system is microcosm of computer science in general. The issues addressed and the technique used to span a wide spectrum, including languages, object orientation and other programming paradigm, compilation, operating system, concurrent programming, data structures, algorithms, theory, parallel and distributed systems user interface, expert systems and artificial intelligence, statistical techniques, and dynamic programming.

1.2 HISTORY

From the earliest days of computers, storing and manipulating data have been a major application focus. The first general purpose DBMS was designed by Charles Bachman at General Electric in the early 1960s was called The Integrated Data Store. It formed the basis for the network data model, which was standardized by the Conferences on Data Systems Languages (CODASYL) and strongly influenced database systems through the 1960s.Bachman was the first recipient of ACM's Turing Award (the computer science equivalent of a Nobel prize) for work in the database Area; he receives the award in 1973.

In the late 1960's IBM developed the Information Management System (IMS) DBMS, used even today in many major installations. IMS form, the basis for an alternative data representation framework called the hierarchical data model. The SABRE system for making airlines reservation was jointly developed by American Airlines and IBM around the same time, and it allowed several people to access the same data through.

An interesting phenomenon is the· emergence of several enterprise resource planning (ERP) and management resources planning (MRP) packages, which add a substantial layer of application -oriented features on top of a DBMS. Widely used packages include systems from Bann, Oracle, PeopleSoft, SAP and Siebel.

1.3 APPLICATIONS OF DBMS

Nowadays DBMS are used in almost all the areas ranges from science, engineering, medicine, business, industry, government, art, entertainment, education and training.

DBMS in the field of Library Management System

There are thousands of books in the library, so it is very difficult to keep records of all the books in a copy or register. DBMS is used to maintain all the information related to book issue date, name of book, author and availability of book.

DBMS in the field of Banking

Another major application is in the banks. Thousands of transactions through daily can do this without going to bank. To manage such huge transactions is just because of DBMS that manages bank transactions.

DBMS in the field of University and colleges

Examinations are done online today, and universities and colleges maintain all these records through DBMS. Student's registrations details, results, courses and grades all the information are stored in database.

DBMS in the field of Telecommunications ·

Any telecommunication company cannot even think about their business without DBMS. DBMS is required for these companies to store the call details and monthly post-paid bills.

DBMS in the field of Online Shopping

Online shopping has become a big trend of these days. No one wants to go to shops and to waste his time. Everyone wants to shop from home. So, all these products are added and sold only with the help of DBMS. Purchase information, invoice and payment all these are done with the help of DB.

DBMS in the field of Military

Military keeps records of millions of soldiers and it has millions of files that should be keep secured and safe. As DBMS provides a big security assurance to military information so it is widely used in militaries. One can easily search for all the information about anyone within seconds with the help of DBMS.

1.4 PROBLEM STATEMENT

Buying a product is a day-to-day activity of man, here optimising and increasing the efficiency of the shopping system is required, a very sturdy website is required for online shopping so that man can buy or order products from anywhere and everywhere.

1.5 OBJECTIVES OF THE PROJECT

- Is to develop a general-purpose e-commerce store where products like electronic products can be bought from the comfort of home through the Internet.
- Creating a database of the available Electronic gadgets in the inventory.
- Evaluate the need for a management perspective to better serve clients and improve outcomes to online shopping.
- List all the electronic products that are available in Inventory.

1.6 ORGANIZATION OF THE REPORT

This section deals with the Introduction and organization of the project report. Chapter 2 discusses the Specific to the problem-Requirement Analysis-Design. Chapter 3 discusses the Design and Implementation. Chapter 4 gives information about the snapshot and results. Chapter 5 include conclusion and future scope. Chapter 6 gives the references of the project.

CHAPTER 2

REQUIREMENT ANALYSIS AND DESIGN

In this chapter we will provide the requirements for the development of the project. From the requirements we will be able to give a high-level system design, software requirements, etc.

2.1 BASIC DEFINITION

E-commerce is the activity of electronically buying or selling of products on online services or over the Internet.

2.2 ADVANTAGES

- This system decreases the chance of error.
- This system requires less time for completion of any work.
- Workload and manpower is very fast.
- Fast Response to Consumer Trends and Market Demand.

2.3 REQUIREMENT ANALYSIS

SOFTWARE:

Windows 10

Windows 10 is a personal computer operating system developed and released by Microsoft as part of the Windows NT family of operating systems.it was released on July 29, 2015. It is the first version of windows that receives ongoing feature updates. Devices in enterprise environments can receive these updates at a slower pace, or use long-term support milestones that only receive critical updates, such as security patches etc.

BACKEND:

MySQL Workbench

MySQL Workbench enables a DBA, developer, or data architect to visually design, model, generate, and manage databases. It includes everything a data modeller needs for creating complex ER models, forward and reverse engineering, and also

delivers key features for performing difficult change management and documentation tasks that normally require much time and effort.

PHP

PHP is a general-purpose scripting language [3] especially suited to web development. It was originally created by Danish-Canadian programmer Rasmus Lerdorf in 1994. The PHP reference implementation is now produced by The PHP Group.

FRONT END:

HTML

Hypertext Mark-up Language is the standard mark-up language for documents designed to be displayed in a web browser [4].

CSS

Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a mark-up language such as HTML.

BOOTSTRAP

Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development [5].

SOFTWARE REQUIREMENTS:

- Operating system - Windows 10
- Backend - MySQL Workbench
- Frontend - Html/CSS/bootstrap
- Platform - WampServer

HARDWARE COMPONENTS:

- Processor - Intel core i5
- Processor speed - 2.4 GHz
- Ram - 8 GB
- Hard disk - 1 TB

CHAPTER 3

DESIGN AND IMPLEMENTATION

The design details of the proposed work in E-Commerce website are represented in this chapter. This includes Schema, ER diagram and implementation details.

3.1 SCHEMA DESCRIPTION

A database schema is the skeleton structure that represents the logical view of the entire database. As shown in Fig 3.1 we have 5 tables, and their primary keys are highlighted.

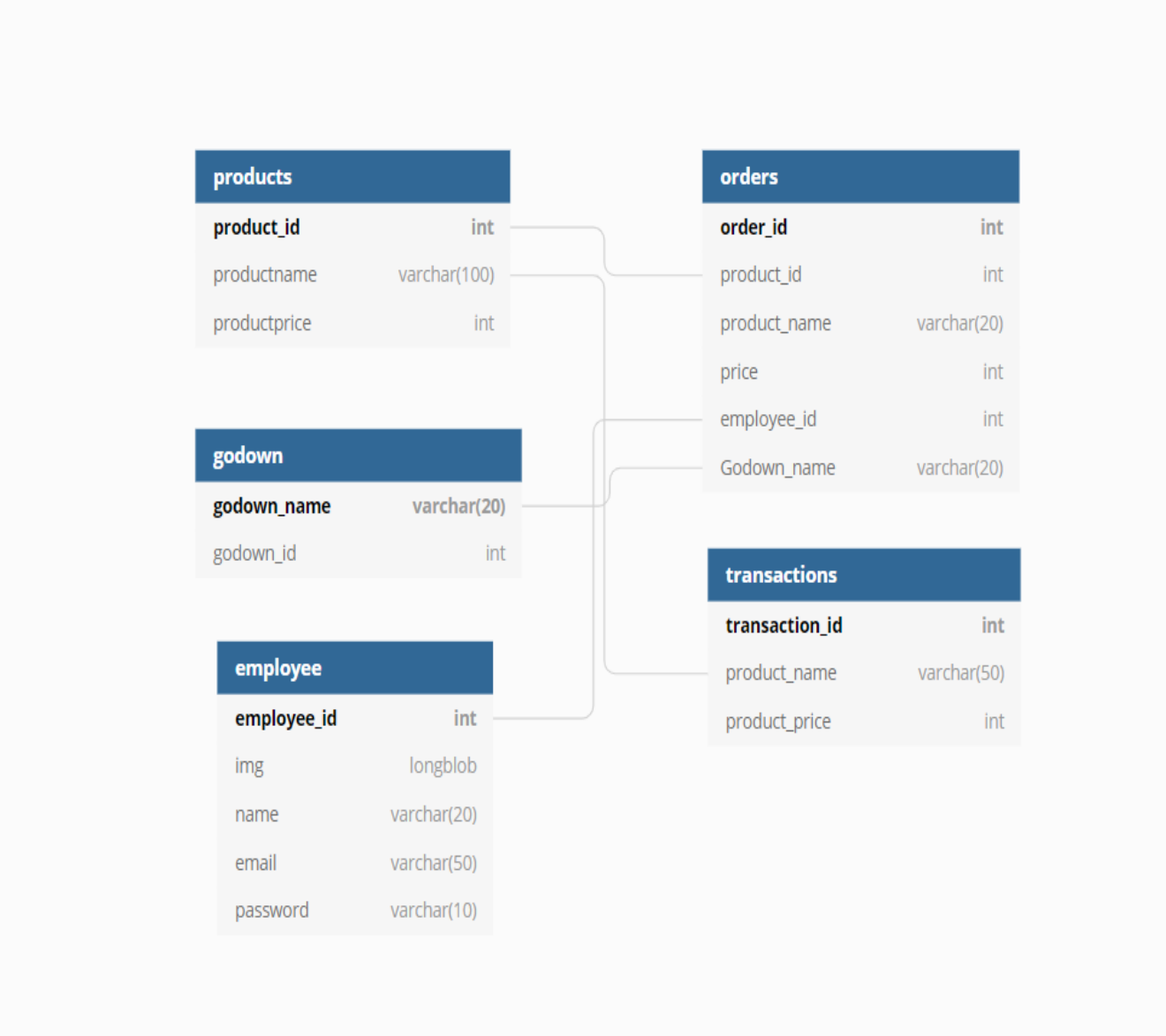


Fig 3.1: SCHEMA DIAGRAM

3.2 ER Diagram

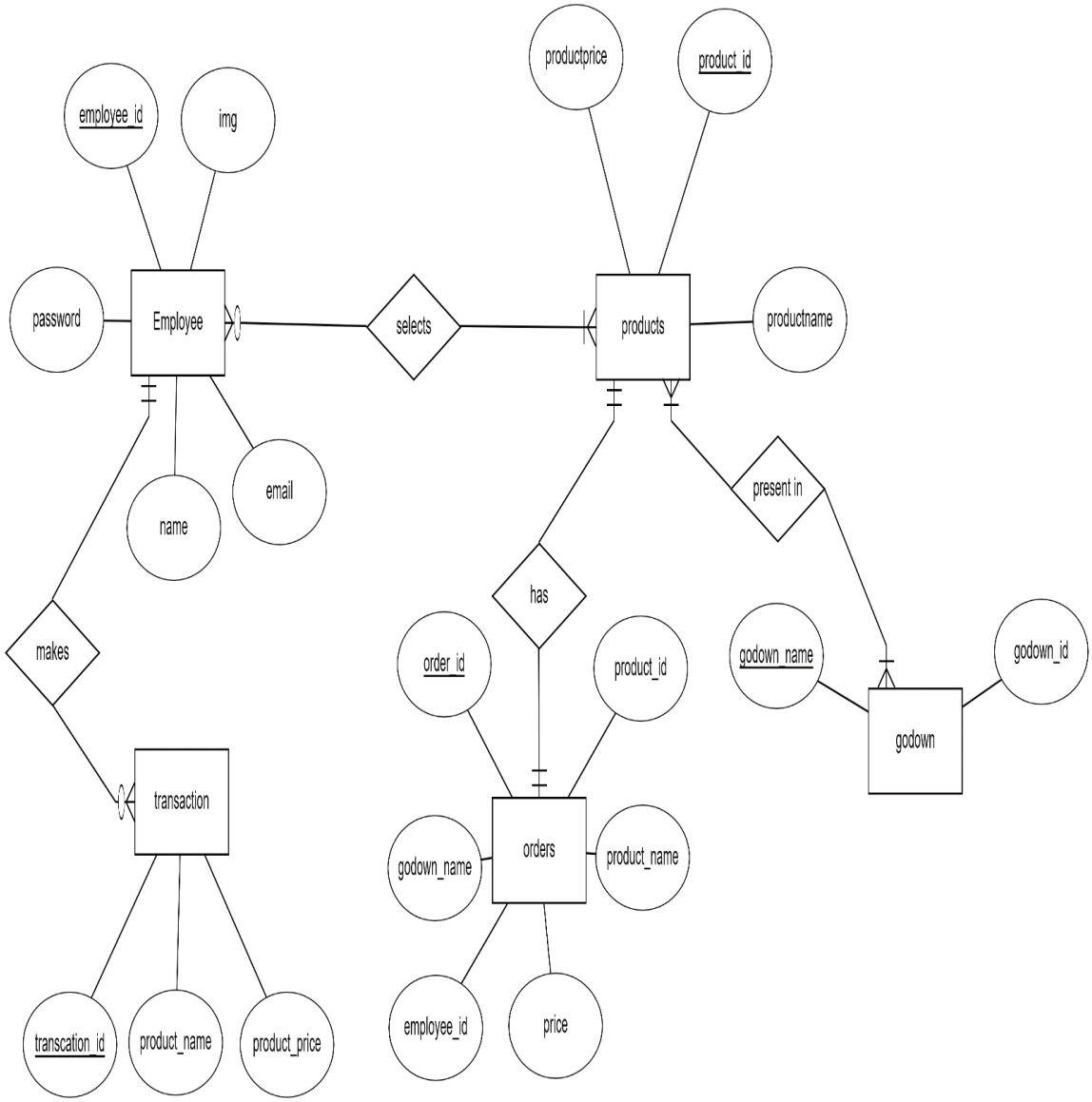


Fig 3.2: ENTITY-RELATIONSHIP MODEL

An entity-relationship model describes interrelated things of interest in a specific domain of knowledge. In the ER-model depicted in Fig 3.2 E-Commerce Website entities and attributes and their inter-relationships and cardinality ratio are shown. Each entity contains primary and unique keys.

3.3 IMPLEMENTATION

INSERT

To insert data into the table, the following query is used.

“insert into godown values (1,'Pai International');”

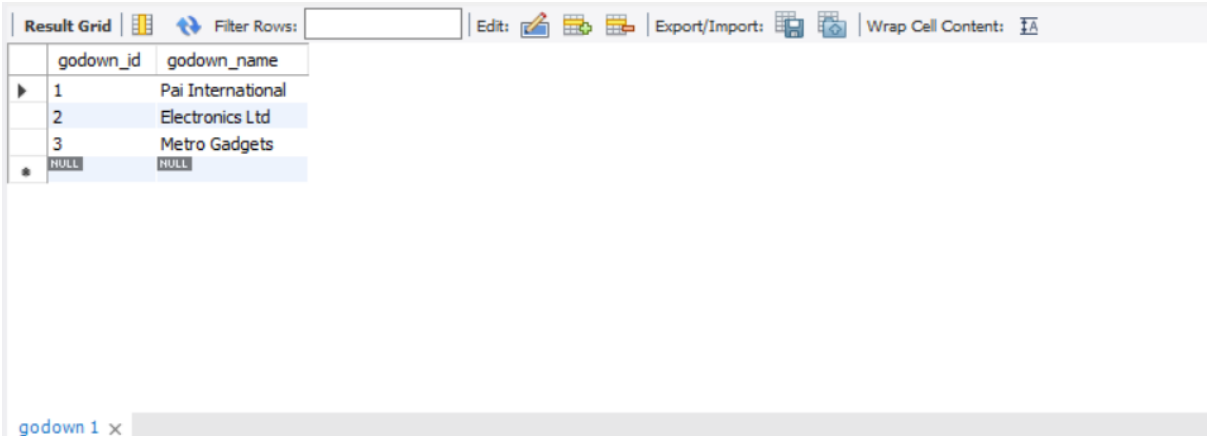


Fig 3.3: TO INSERT VALUE INTO TABLE GODOWN

In Fig 3.3 it is explained that we have 3 godowns Pai International, Electronics Ltd, Metro Gadgets in which we store our products, if our inventory does not have a specific product, we will ORDER it from these 3 godowns.

To insert data into the table products, the following query is used.

“insert into products values (5,'Apple iPhone SE(Black, 64 GB)',32999);”

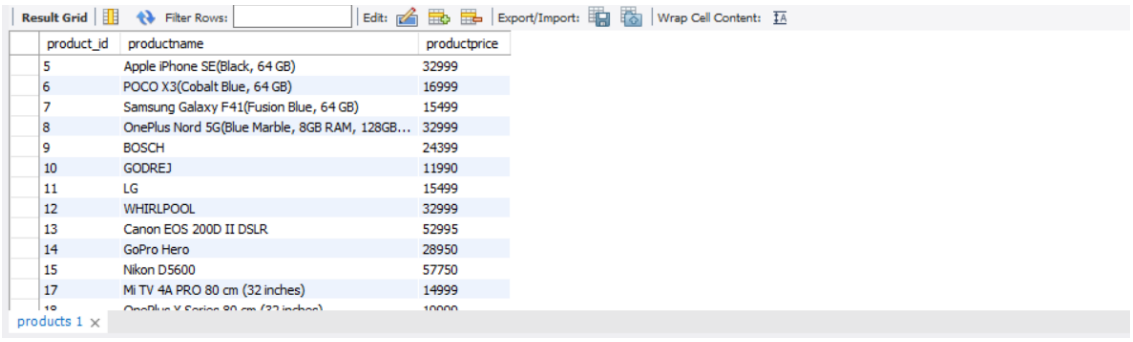
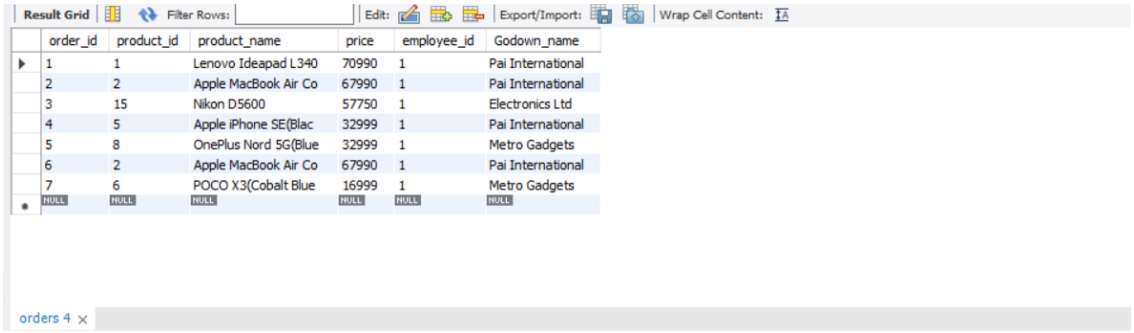


Fig 3.4: TO INSERT VALUE INTO TABLE PRODUCTS

In Fig 3.4 we have shown the result of inserting a value in the products table that we have, by providing the above SQL command the above Fig result is generated.

To insert the data into table orders, the following query is used.

“insert into orders values(7,6,'POCO X3(Cobalt Blue',16999,1,'Metro Gadgets');”



Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

order_id	product_id	product_name	price	employee_id	Godown_name
1	1	Lenovo Ideapad L340	70990	1	Pai International
2	2	Apple MacBook Air Co	67990	1	Pai International
3	15	Nikon D5600	57750	1	Electronics Ltd
4	5	Apple iPhone SE(Blac	32999	1	Pai International
5	8	OnePlus Nord 5G(Blue	32999	1	Metro Gadgets
6	2	Apple MacBook Air Co	67990	1	Pai International
7	6	POCO X3(Cobalt Blue	16999	1	Metro Gadgets
NULL	NULL	NULL	NULL	NULL	NULL

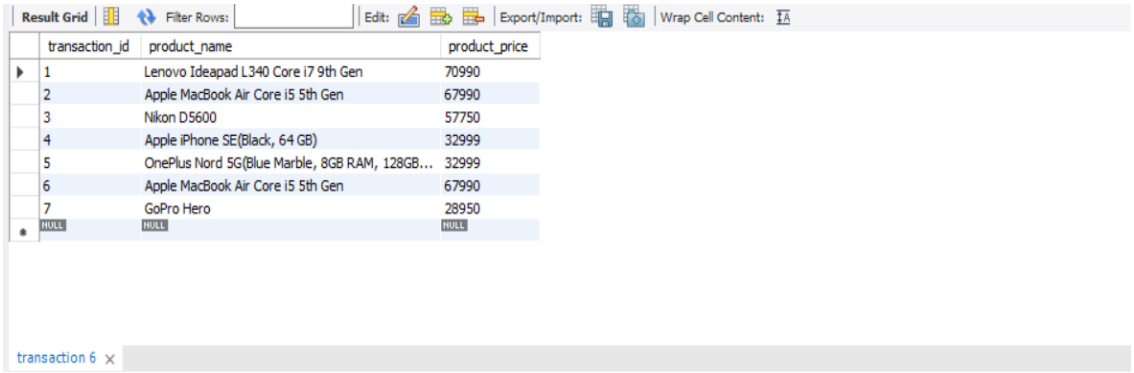
orders 4 ×

Fig 3.5: TO INSERT VALUE INTO TABLE ORDERS

In Fig 3.5 we have shown the result of inserting a value in the orders table that we have, by providing the above SQL command the above Fig result is generated.

To insert the data into table transaction, the following query is used.

“insert into transaction values(7,'GoPro Hero',28950);”



Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

transaction_id	product_name	product_price
1	Lenovo Ideapad L340 Core i7 9th Gen	70990
2	Apple MacBook Air Core i5 5th Gen	67990
3	Nikon D5600	57750
4	Apple iPhone SE(Black, 64 GB)	32999
5	OnePlus Nord 5G(Blue Marble, 8GB RAM, 128GB...	32999
6	Apple MacBook Air Core i5 5th Gen	67990
7	GoPro Hero	28950
NULL	NULL	NULL

transaction 6 ×

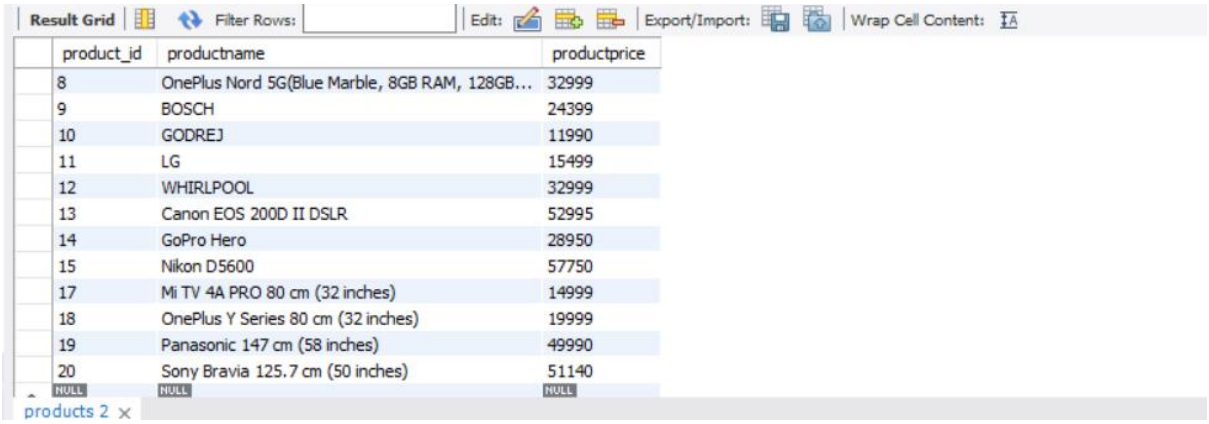
Fig 3.6: TO INSERT VALUE INTO TABLE TRANSACTONS

In Fig 3.6 we have shown the result of inserting a value in the transactions table that we have, by providing the above SQL command the above Fig result is generated.

DELETE

To delete data from the table, following query is used:

"delete from products where product_id = 18;"



Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

product_id	productname	productprice
8	OnePlus Nord 5G(Blue Marble, 8GB RAM, 128GB...	32999
9	BOSCH	24399
10	GODREJ	11990
11	LG	15499
12	WHIRLPOOL	32999
13	Canon EOS 200D II DSLR	52995
14	GoPro Hero	28950
15	Nikon D5600	57750
17	Mi TV 4A PRO 80 cm (32 inches)	14999
18	OnePlus Y Series 80 cm (32 inches)	19999
19	Panasonic 147 cm (58 inches)	49990
20	Sony Bravia 125.7 cm (50 inches)	51140
NULL	NULL	NULL

products 2

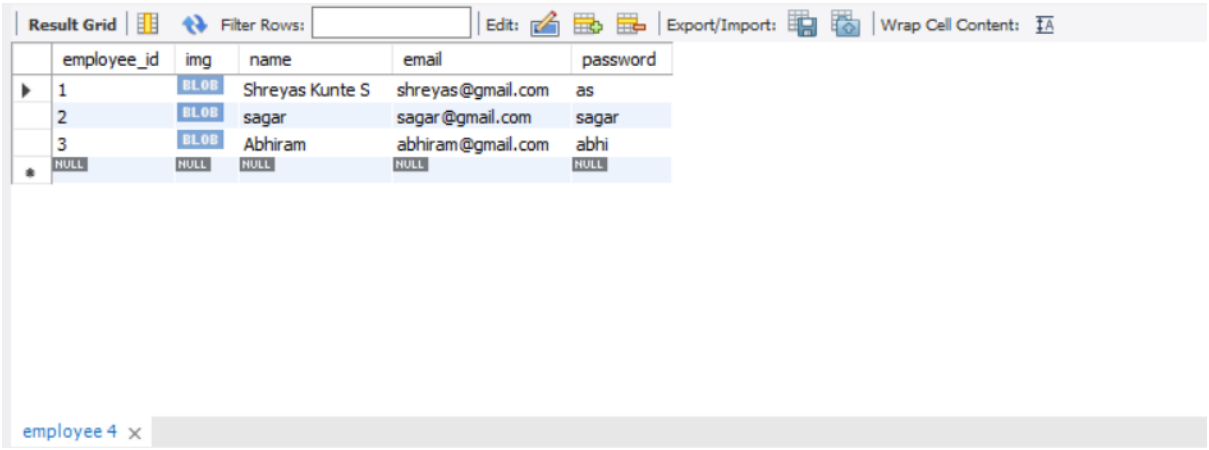
Fig 3.7: TO DELETE A VALUE FROM TABLE PRODUCTS

In Fig 3.7 we have displayed the backend table of products that we currently have in our inventory, if we buy any product that entry in this table will be deleted.

DISPLAY

To display data from the table, following query is used:

"select * from employee;"



Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

employee_id	img	name	email	password
1	BLOB	Shreyas Kunte S	shreyas@gmail.com	as
2	BLOB	sagar	sagar@gmail.com	sagar
3	BLOB	Abhiram	abhiram@gmail.com	abhi
NULL	NULL	NULL	NULL	NULL

employee 4

Fig 3.8: TO DISPLAY THE EMPLOYEE FROM EMPLOYEE TABLE

In Fig 3.8 we are displaying the list of employees. There is an option to view the details of an employee in the front-end, by clicking the button it displays the image, name and email address of the logged in employee.

CHAPTER 4

RESULT AND SNAPSHOTS

This chapter presents the snapshots of different stages of the developed website, this includes the Login Page, Registration Page and other pages.

FRONTEND

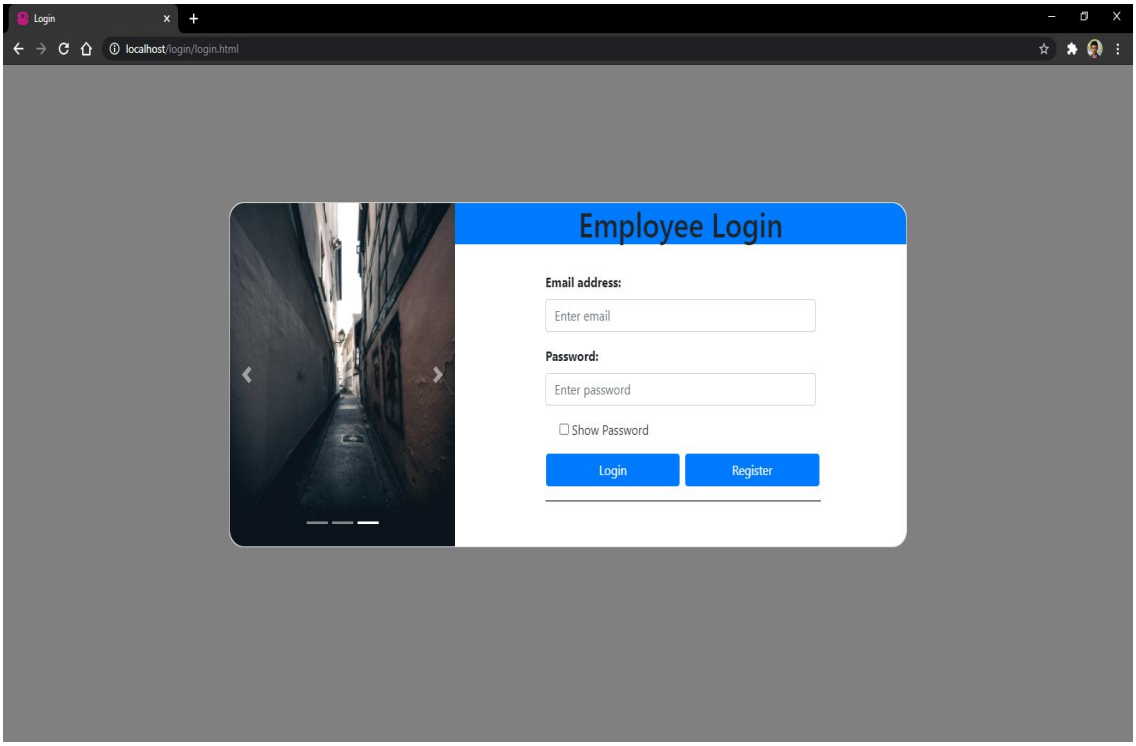


Fig 4.1: LOGIN PAGE

Once you open this website this is the first page that pops up that is Fig 4.1: Login Page, it asks the user to either login to existing account or register a new account.

If we click on REGISTER a form that is Fig 4.2: Registration Page will open in which we can register by providing the necessary information's.

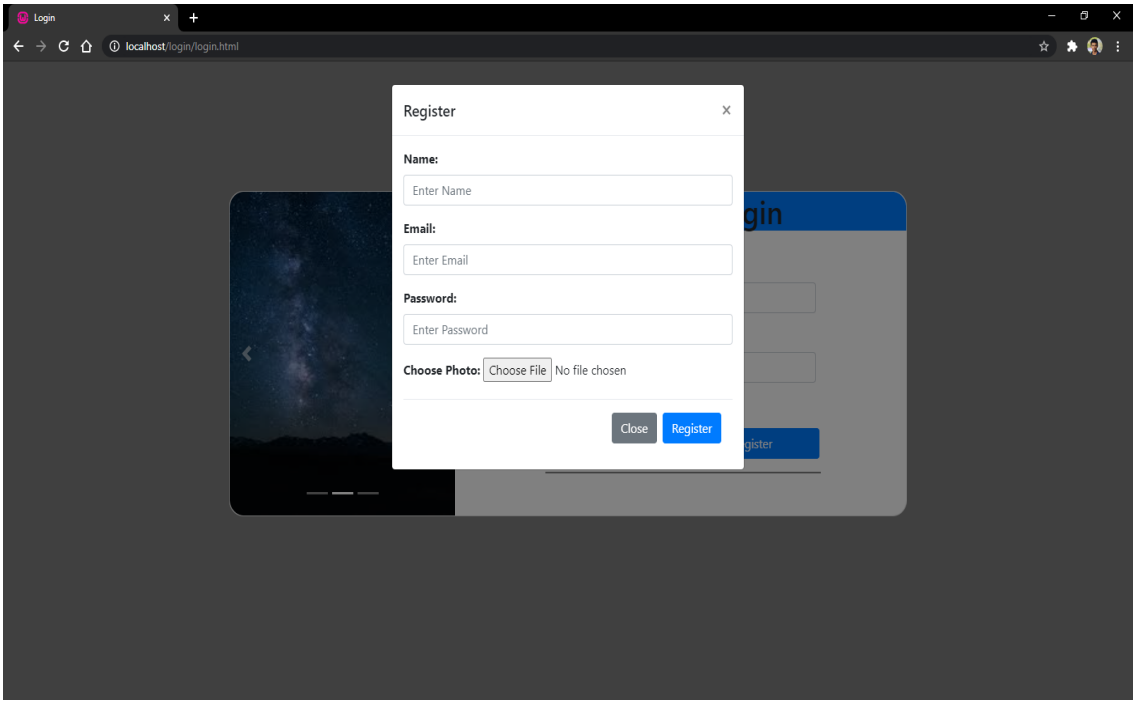


Fig 4.2: REGISTRATION PAGE

In Fig 4.2 shows our register form on filling the credentials the employee's details will be stored in the database.

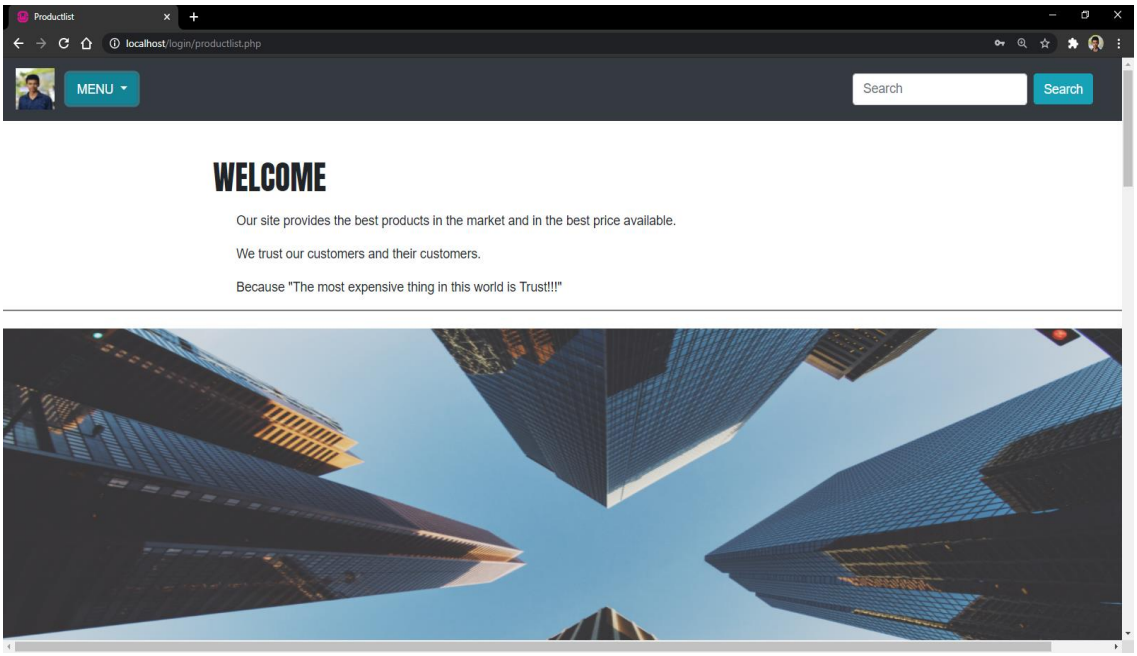


Fig 4.3: HOME PAGE

After registering log in by providing suitable log in credentials, after logging in the first page the HOME PAGE appears which is shown in Fig 4.3.

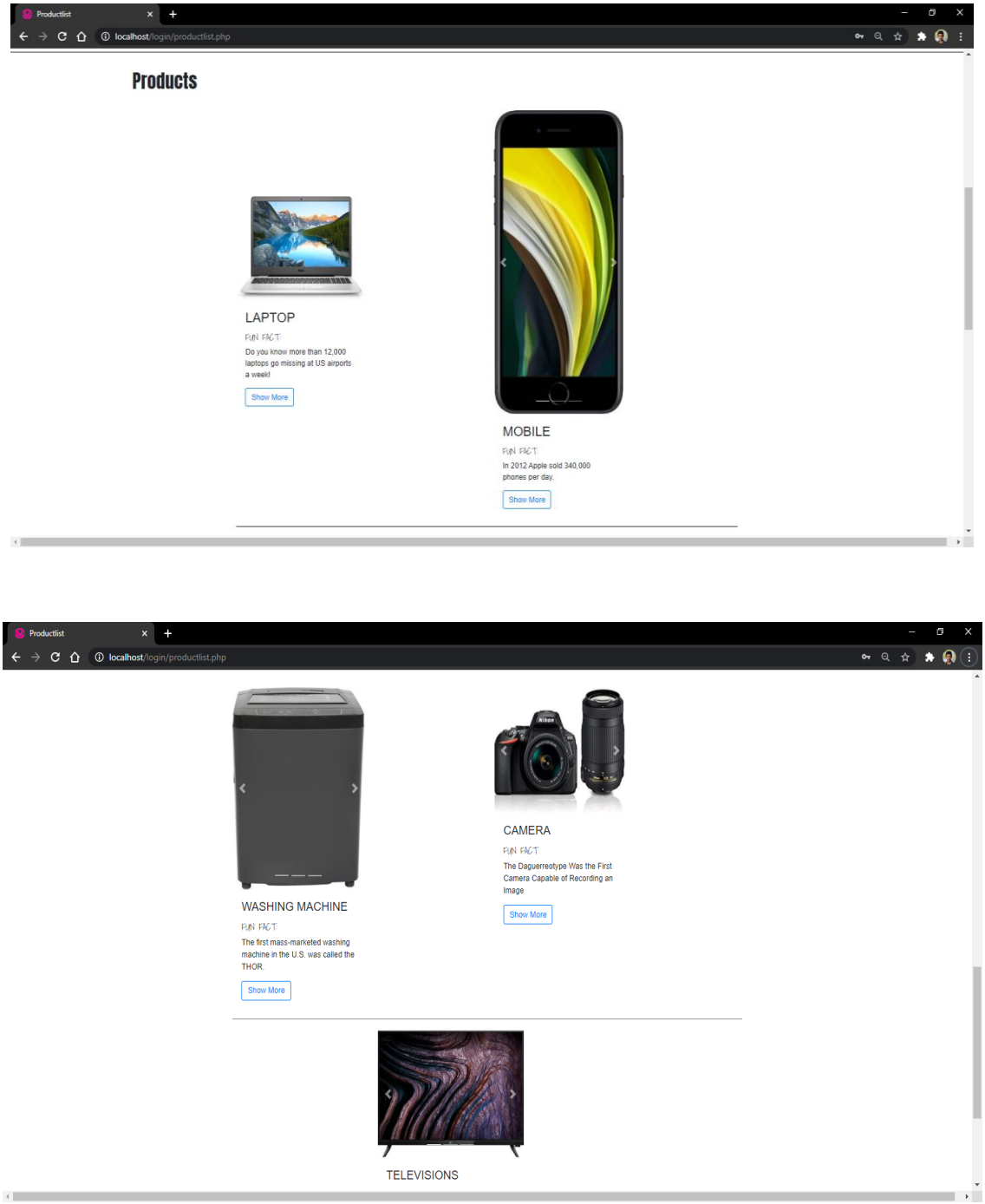


Fig 4.4: PRODUCTS OVERVIEW

The PORDUCTS OVERVIEW page is shown in Fig 4.4 in which we display all the different products, on clicking SHOW MORE button it opens different pages where we have different models of that specific product, this will redirects to next pages like Cameras Page, Laptops Page or others.

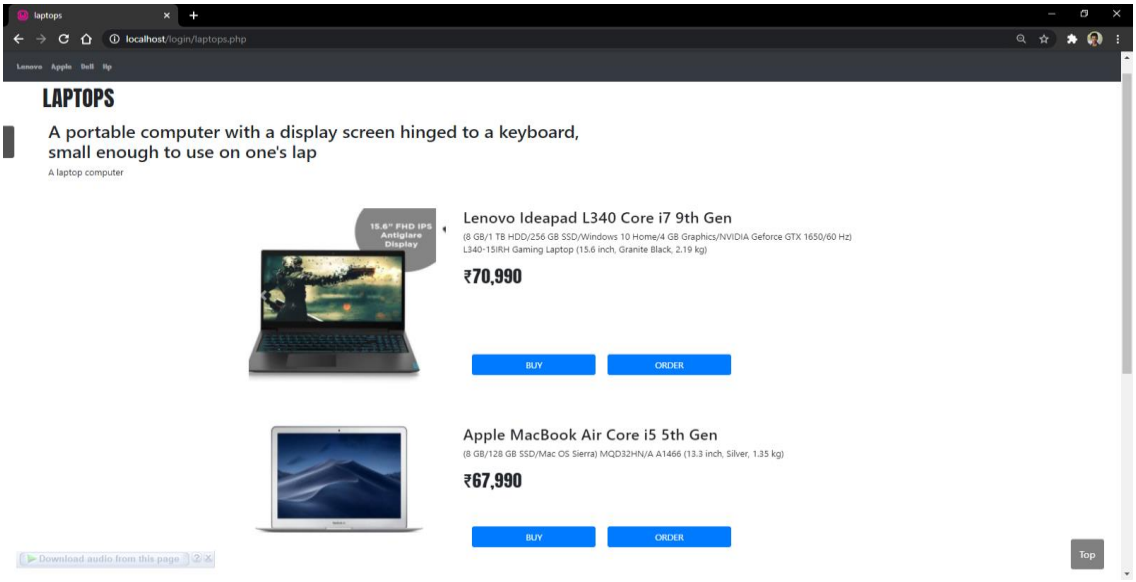


FIG 4.5: LAPTOPS

In Fig 4.5 displays the LAPTOPS product page in which we can BUY or ORDER any specific model that the customer desires to shop. The BUY buttons redirect to billing to say that the customers has bought that product and ORDER button opens a form in which we(employee) can place order for the delivery of that product if that product is not present in our inventory.

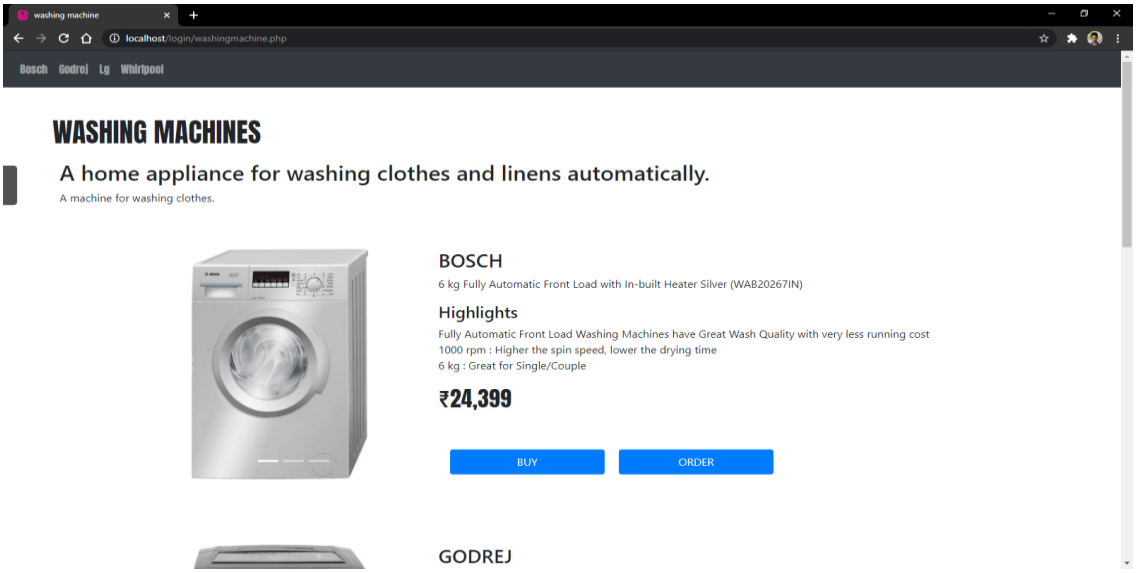


Fig 4.6: WASHING MACHINES

In Fig 4.6 displays the WASHING MACHINE product page in which we can BUY or ORDER any specific model that the customer desires to shop. The BUY buttons redirect to billing to say that the customers has bought that product and ORDER button opens a form in which we(employee) can place order for the delivery of that product if that product is not present in our inventory.

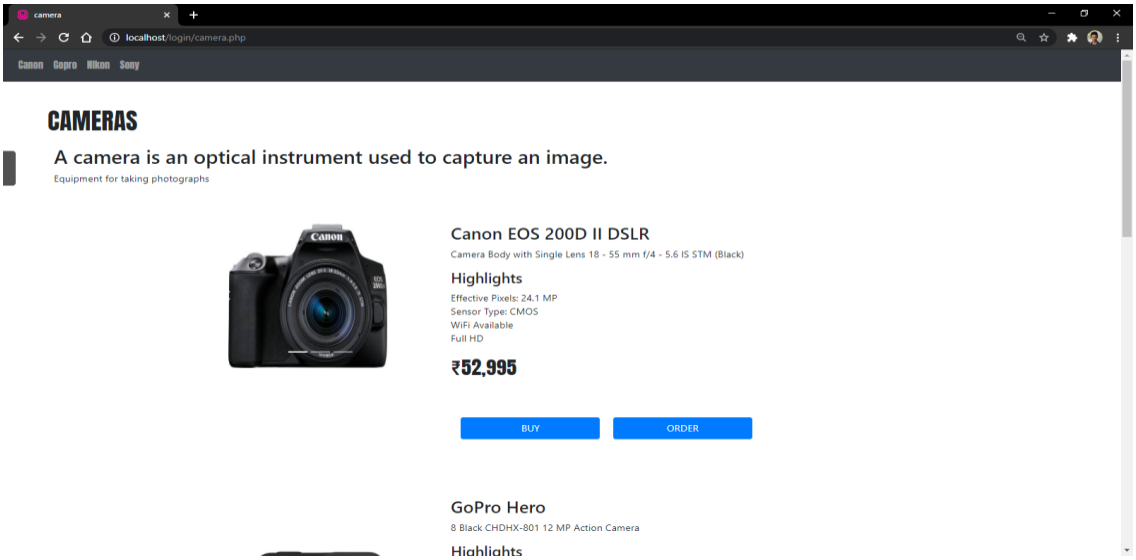


FIG 4.7: CAMERAS

In Fig 4.7 displays the CAMERA product page in which we can BUY or ORDER any specific model that the customer desires to shop. The BUY buttons redirect to billing to say that the customers has bought that product and ORDER button opens a form in which we(employee) can place order for the delivery of that product if that product is not present in our inventory.

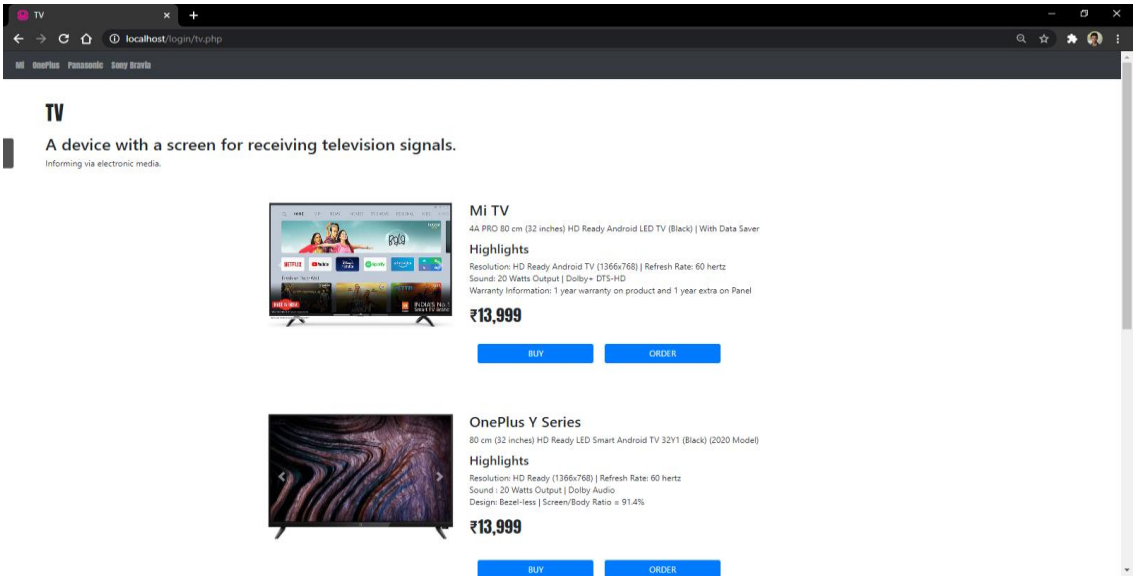


FIG 4.8: TELEVISIONS

In Fig 4.8 displays the TELEVISIONS product page in which we can BUY or ORDER any specific model that the customer desires to shop. The BUY buttons redirect to billing to say that the customers has bought that product and ORDER button opens a form in which we(employee) can place order for the delivery of that product if that product is not present in our inventory.

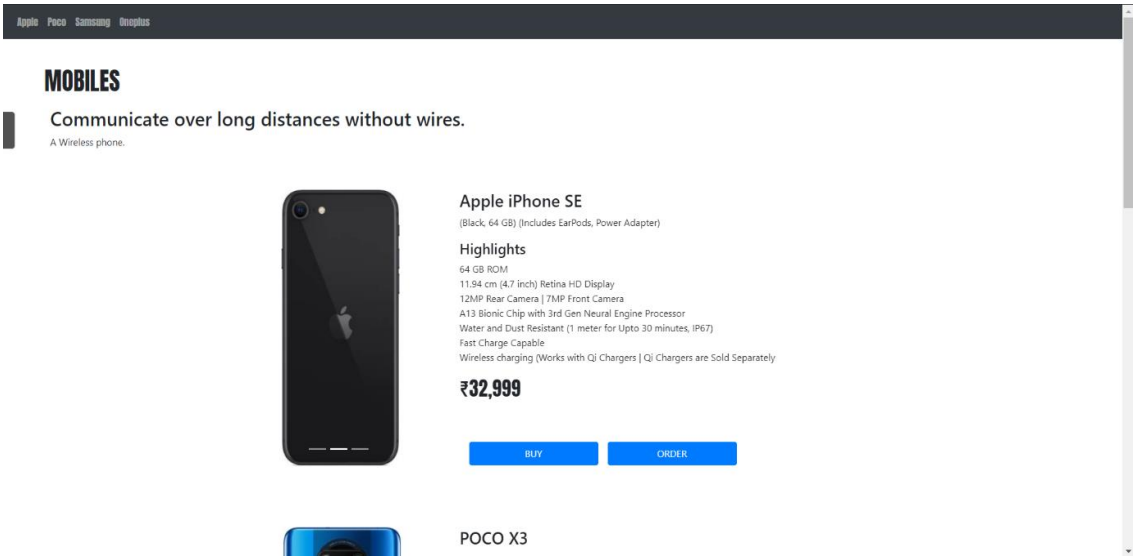


FIG 4.9: MOBILE PHONES

In Fig 4.9 displays the MOBILE PHONES product page in which we can BUY or ORDER any specific model that the customer desires to shop. The BUY buttons redirect to billing to say that the customers has bought that product and ORDER button opens a form in which we(employee) can place order for the delivery of that product if that product is not present in our inventory.

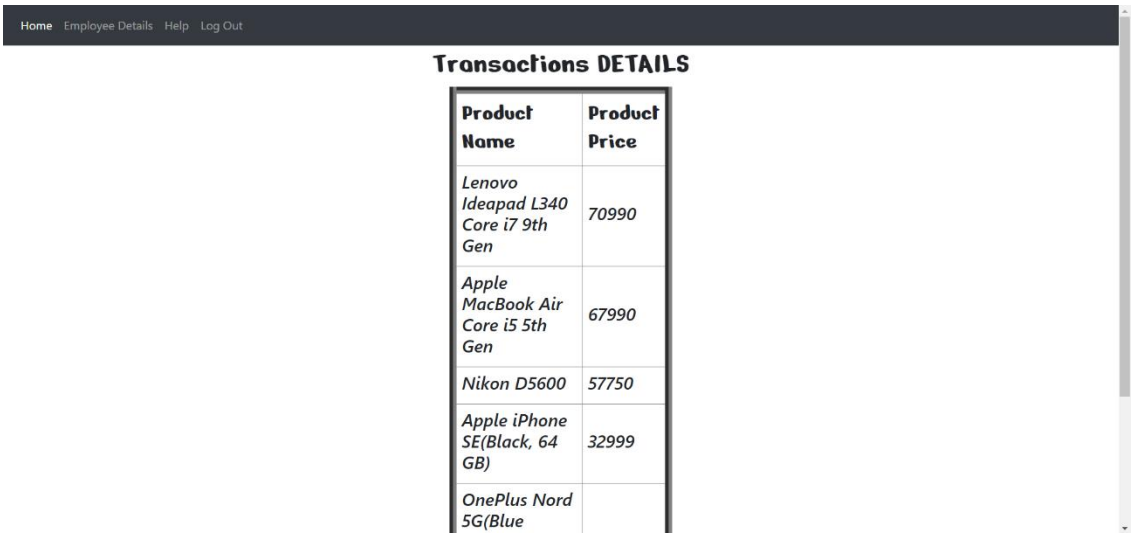


Fig 4.10: TRANSACTION DETAILS PAGE

In Fig 4.10 depicts the details of the transaction table, after entering the display SQL command, if any products are ordered or any products are bought this transaction is reflected here in this trnasaction details page.

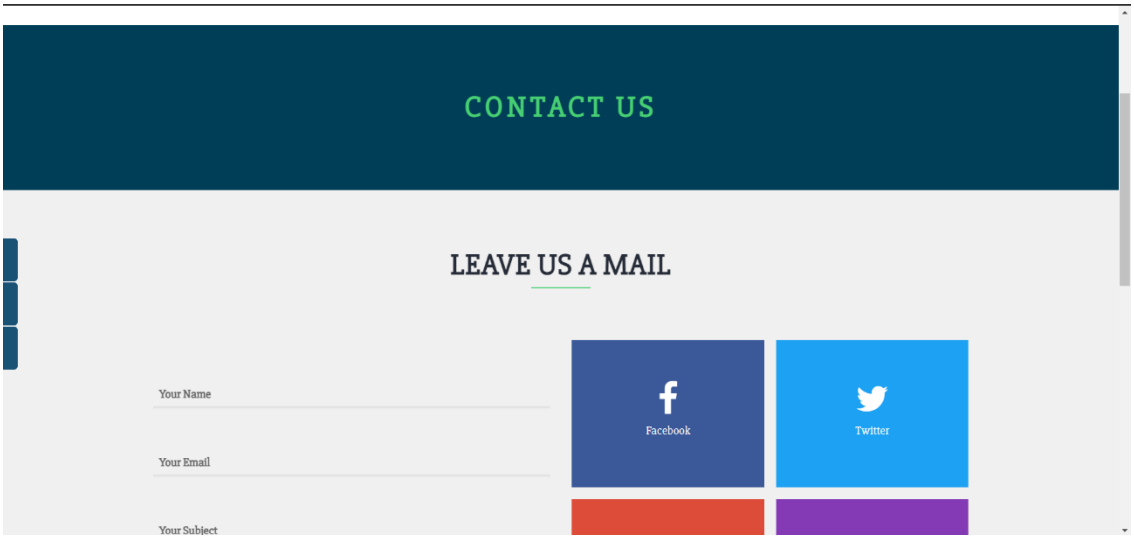


Fig 4.11: CONTACT US PAGE

In Fig 4.11 shows the information about how to contact us, we have provided our several socail media handles in this page, by clicking on the hyperlinks (tab) the site automatically redirects to that specific social media page/site of us. We have even provided our live address from the google maps.

BACKEND DATABASE

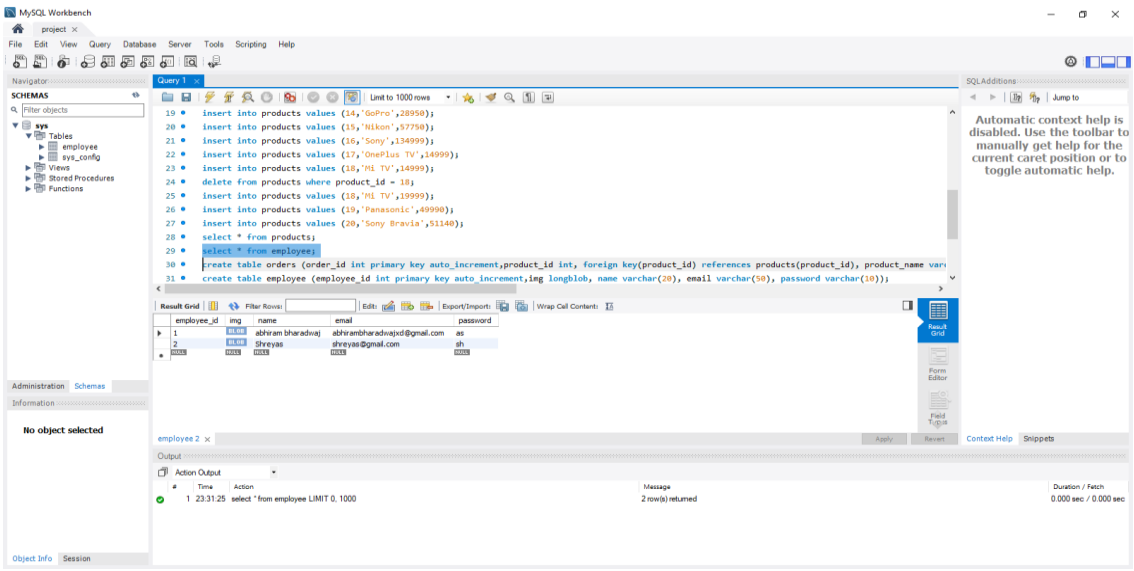


FIG 4.10: MySQL Workbench

In Fig 4.10 shows the details of MYSQL Workbench which provides SQL development, data modelling, data migration, and comprehensive administration tools for server configuration, user administration, backup, and many more.

CONCLUSION

The Internet has become a major resource in modern business, thus electronic shopping has gained significance not only from the entrepreneur's but also from the customer's point of view. For the entrepreneur, electronic shopping generates new business opportunities and for the customer, it makes comparative shopping possible.

A good shopping cart design must be accompanied with user-friendly shopping cart application logic. It should be convenient for the customer to view the contents of their cart and to be able to remove or add items to their cart. The shopping cart application described in this project provides a number of features that are designed to make the customer more comfortable.

This project helps in understanding the creation of an interactive web page and the technologies used to implement it. The building of the project has given us a precise knowledge about how HTML/CSS/Bootstrap/PHP is used to develop a website, how it connects to the database to access the data and how the data and web pages are modified to provide the user with an online shopping application.

This project is to design an efficient Maintained database system and it will make easy to access the records based on requirements.

Future Scope of the Project

The future scope of this project E-commerce Website is very wide. There are many additional features which are planned to be incorporated during the future enhancements of this project. The future version of this system in some point that we may implement on them are

- Developing an application for android/iOS devices that works on the same database which is the mini of MySQL.
- Optimizing the search option by developing SEARCH function.
- We can also develop this project further by maintaining the Customer's e-cart.

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