"Tiles Stock management"

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

THE NATIONAL INSTITUTE OF ENGINEERING

ESTD : 1946

CERTIFICATE

This is to certify that the project work entitled "**Tiles Stock Management**" is a work carried out by NARAYANI H (4NI19CS073), SANJANA URS K (4NI19CS097), POOJA B (4NI19CS080) in partial fulfillment for the project work (Database Laboratory – CS5L02), fifth semester, Computer Science & Engineering, The National Institute of Engineering (Autonomous Institution under Visvesvaraya Technological University, Belagavi) during the academic year 2021-2022. It is certified that all corrections and suggestions indicated for the Internal Assessment have been incorporated in the report deposited in the department library. The project work report has been approved in partial fulfillment as per academic regulations of The National Institute of Engineering, Mysuru.

Signature of the Internal Guides **Signature of the HoD**

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Acknowledgements

Tiles stock management has been developed successfully with a great contribution of many people in a period of one year. We like to appreciate their guidance, encouragement and willingness since without their support the project would not have been a success.

We avail this opportunity to express out deep sense of gratitude to our project guide and supervisor Nivedha, Assistant Professor of department of Computer Science & Engineering, The National Institute of Engineering Mysore, for her excellent guidance, timely support suggestions and all the help in carrying out this project right from the selection of the topic to submission of report to the institute and remained ever grateful to you madam.

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Introduction

1.1 Overview

Tiles stock management is a website made for people to check different tiles virtually. This website displays different tiles like vitrified, parking, kitchen, border, taps, basin, and sanitary ware. Each type has a name, size, and image. It contains contacts of the company, map, and other social media platform links.

For admin, there is a stock management system. It displays a list of today's sales, a list of out-of-stock, a list of total stock, a list of different types, sizes, names, batches, materials. It has forms to insert new sizes, new names, from and to the sales list. Sales is displayed pictorially also using graphs. You can enter sales and purchases. On submitting it displays the current stock of the company.

We had meetings and brainstormed ideas and designs for web development. After a week, we finalized a template and design for the website. We collected tile's names, sizes, and researched relevant information of the same.

The next phase was to get started with using HTML, CSS, and bootstrap to build the website. The documentation was finalized where one person explained and everyone pitched in to make final adjustments. All in all, this project not only helped us refine our skills in web development, but it also helped us learn more about the tiles, helped us with our teamwork and understanding.

1.2 Tiles

Tiles are usually thin, square, or rectangular coverings manufactured from hard-wearing material such as ceramic, stone, metal, baked clay, or even glass. They are generally fixed in place in an array to cover roofs, floors, walls, edges, or other objects such as tabletops. In another sense, a tile is a construction tile or similar object, such as rectangular counters used in playing games (see tile-

based game). The word is derived from the French word *tuile*, which is, in turn, from the Latin word *tegula*, meaning a roof tile composed of fired clay.

Tiles are found in different sizes like 2/2, 4/2, 32/32, shapes like square, rectangle, designs like freehand, plain, patched, materials like glass, ceramics, wood, etc. Tiles being a major part of human-like, not many people know about its categories. In this pandemic situation going to shops with family to choose tiles for their dream homes is not possible. So we planned to make a website which they can use in the current situation.

Chapter-2

System Analysis

2.1 Existing system explanation

Usually, tiles stock management is made in books. When load comes it is recorded in the purchase book and on sales, it is recorded in the sales book. In this method, there is no record of finding the total stock at a particular time, you can't find the total numbers of boxes and pieces of particular tiles. Because of this, you are not sure which tile should we display to the customer.

2.2 Proposed system explanation

On this website, just by entering the sales and purchases on this website, you can see the total stock, out-of-stock, and today's sales list. This helps you to understand the most sold and the least sold tiles in the company. Also, you can see the graphical representation of the sales. And for customers, the website can be used as a catalog to show different tiles available in the company.

2.2 System Requirements

For customer use, if the website is the host then we can open it in any browser. For admin, he should have MySQL installed and tables created or database in the cloud.

2.4 Statement of the problem

We are building a website on tiles stock management. It comprises different types of tiles. Each type has different measurements. Each measurement has a different design name. Each design has different batches. Each measurement has a specified number of pieces in a box. For sanitary ware, it has only names. We will be giving inward and outward (purchase of tiles and sales of tiles) options for measurements, design names, batches. Most stock management is done manually. This application will give computerized stock management, list of out of stock tiles, frequently sold type of tiles, and daily stock sheet.

Chapter-3

System Design

3.1 System Architecture

In the front end, it contains about, products, stock. Products include different items sold by the company. Each item has a name, size, and one image. In the backend, different tables are created to store the data. Foreign keys are used to connect them. There are 10 tables vitri, nametable, sizetable, sales, purchase, typetable, border, adhe, sani, and tap. Nametable, sizetable and typetable are connected to other tables with foreign keys. We have used 5 views vitrified, borderr, adhesive, sanitary, and tapp.

In typetable, there are different types of tiles like vitrified, flooring, parking, etc. Each name has an id as a primary key. In nametable, there are different names are listed like Diana, basin, shower tap, pedestal, EWC, Premier, Classic, Moonlight, Romano, Nova, Firm, Basin tap, Pencil, etc. Each name has an id as a primary key. In sizetable, there are different sizes are listed like 2/2, 4/2, 32/32, 800/1600, 200/1200, 16/16, 1/1, etc. Each name has an id as a primary key.

In vitri table, it contains different combinations with the number of boxes, pieces, and cost per box. In sani table, it contains different combinations with the number of pieces and cost per piece. In tap table, it contains different combinations with the material, number of pieces, and cost per piece. In border table, it contains different combinations with the number of pieces and cost per piece. In adhe table, it contains different combinations with the weight, number of pieces, and cost per piece.

In sales table, it stores all the sales lists entered by the admin. In purchase table, it stores all the purchase lists entered by the admin. It has 5 views. These are used to create a table connecting all foreign keys. They are used in displaying data on the website.

3.2 ER Diagram

An Entity-relationship model (ER model) describes the structure of a database with the help of a diagram, which is known as the Entity-Relationship Diagram (ER Diagram). An ER model is a design or blueprint of a database that can later be implemented as a database. The main components of the E-R model are entity set and relationship set.

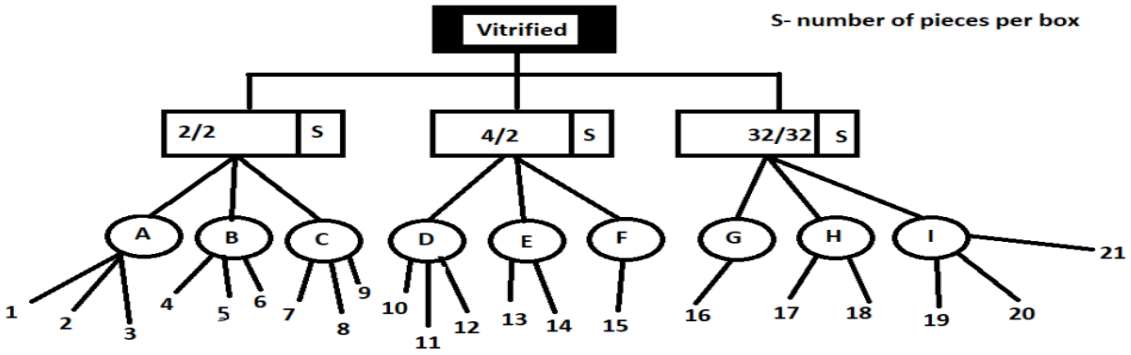

Fig 3.1 Representation of a particular tile type

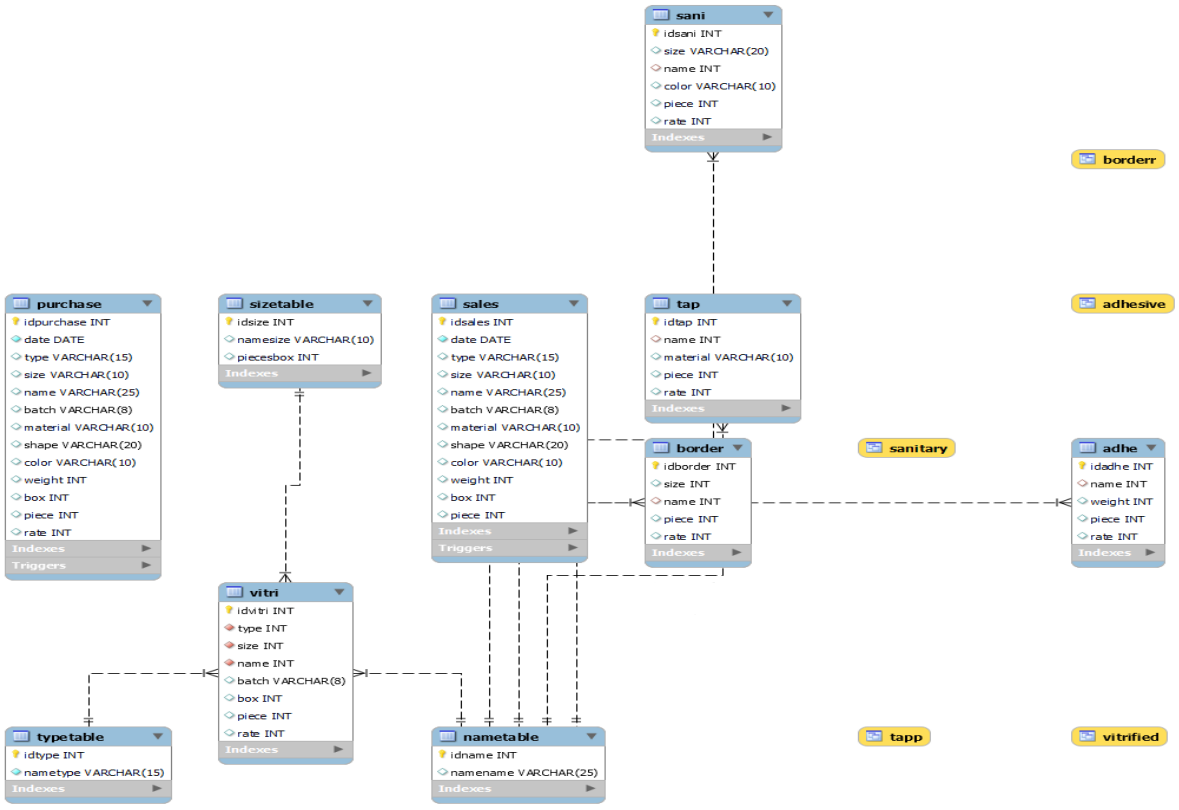

Fig 3.2 ER Diagram

Chapter – 4

System Implementation

The tools used in making the website are

- Hypertext Markup Language (HTML)
- Cascading Style Sheets (CSS)
- JavaScript (JS)
- Bootstrap
- Hypertext Preprocessor (PHP)
- MySQL database.

4.1 Front end

The home page consists of a logo, navbar, carousel pictures, explore, and footer section. Navbar contains about the company, products, and stock buttons. Explore section contains pictures that are links to other pages. Products have sub-list vitrified, sanitary, kitchen, and accessories. The Footer section has links to social media sites contact details and a map to the company.

Fig 4.1 (a) Homepage

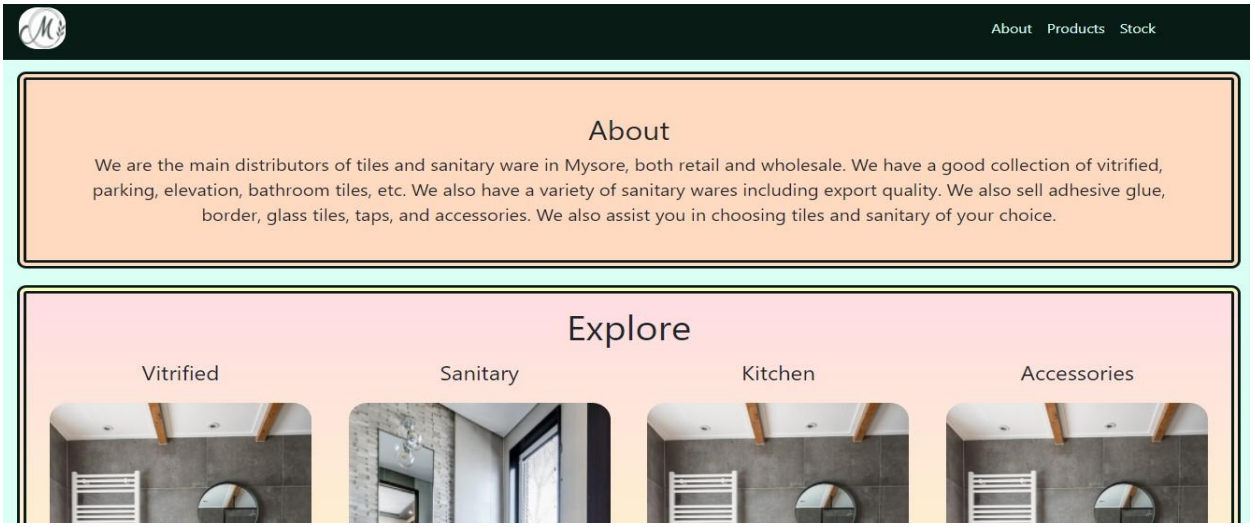

Fig 4.1 (b) Homepage

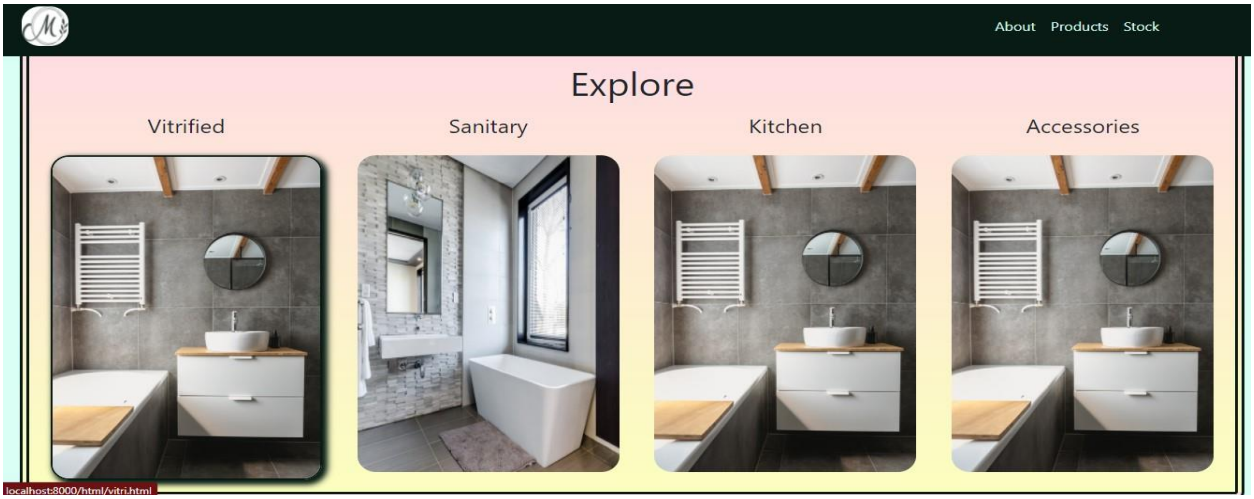

Fig 4.1 (c) Homepage

Fig 4.1 (d) Homepage

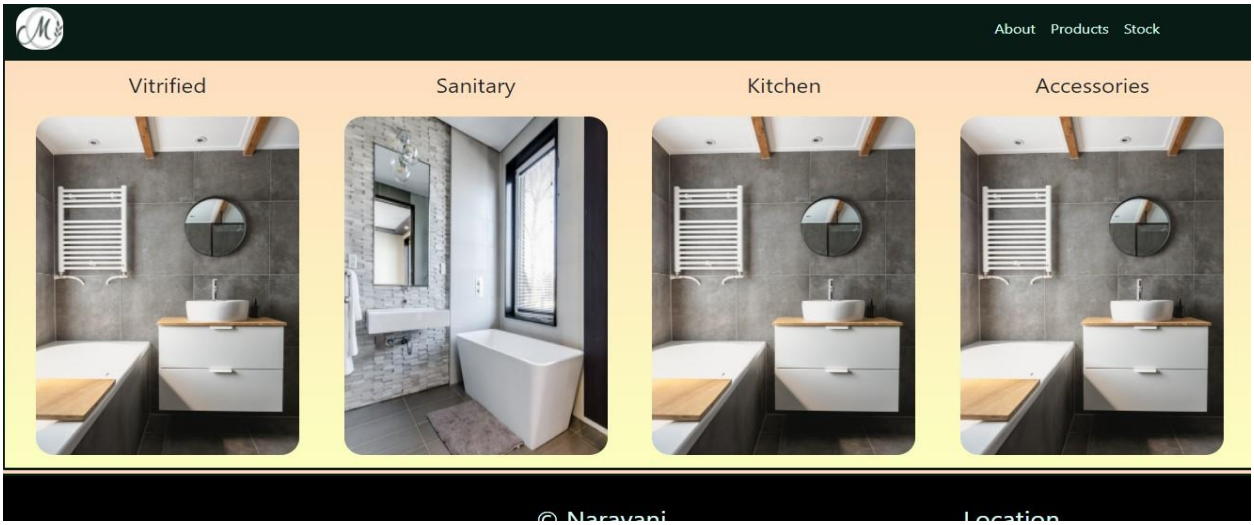

Fig 4.2 Products page

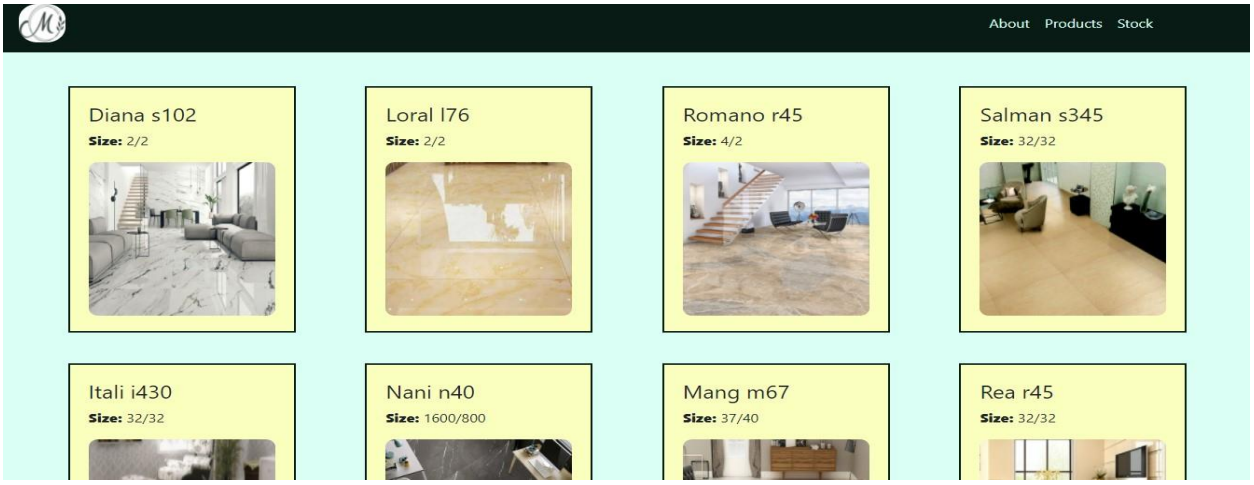

Fig 4.3 (a) Vitrified page

Fig 4.3 (b) Vitrified page

Fig 4.3 (c) Vitrified page

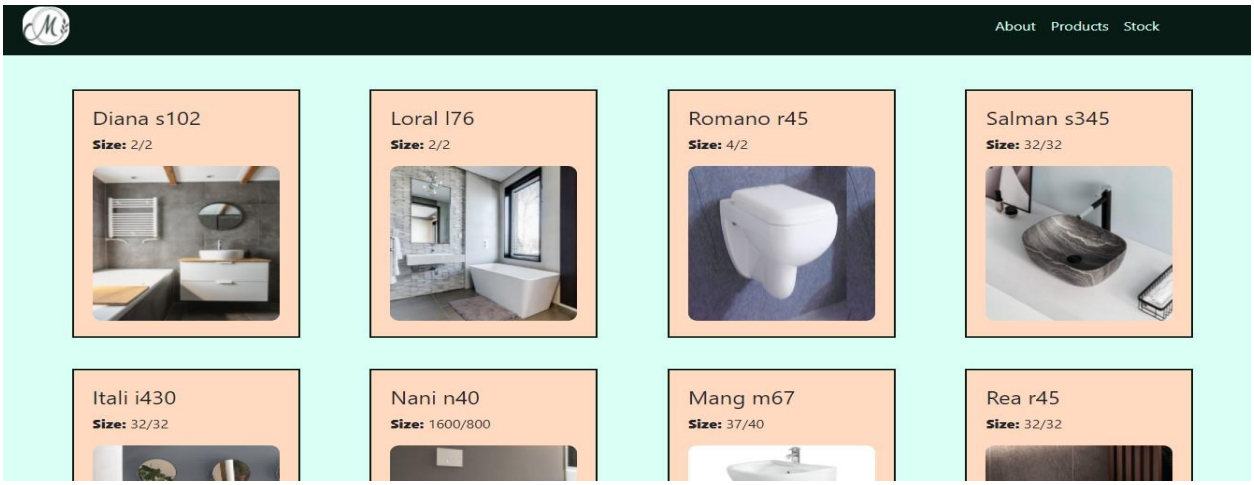

Fig 4.4 (a) Sanitary page

Fig 4.4 (b) Sanitary page

Fig 4.4 (c) Sanitary page

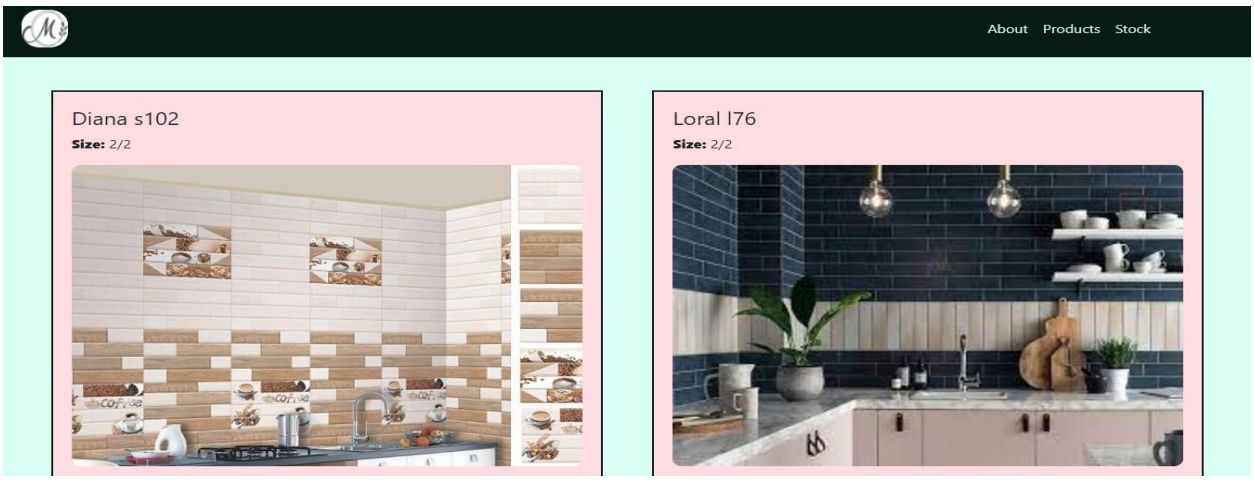

Fig 4.5 (a) Kitchen page

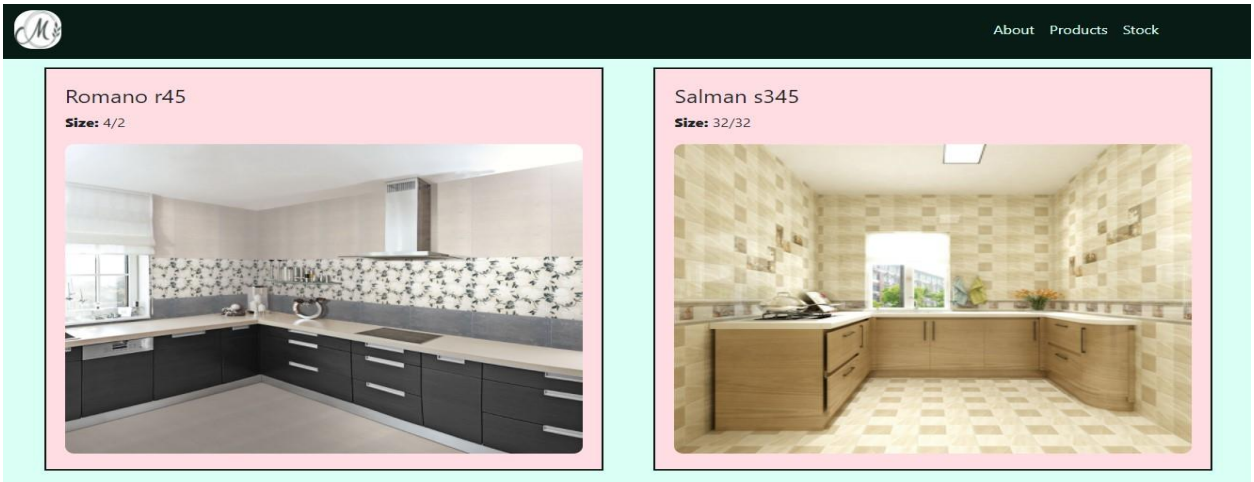

Fig 4.5 (b) Kitchen page

Fig 4.5 (c) Kitchen page

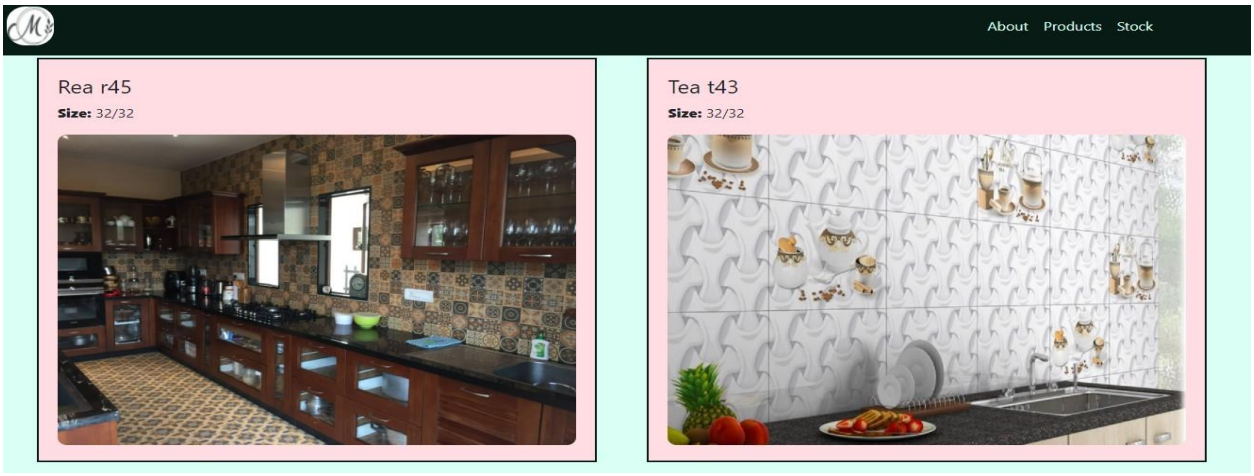

Fig 4.5 (d) Kitchen page

Fig 4.5 (e) Kitchen page

Fig 4.6 (a) Accessories page

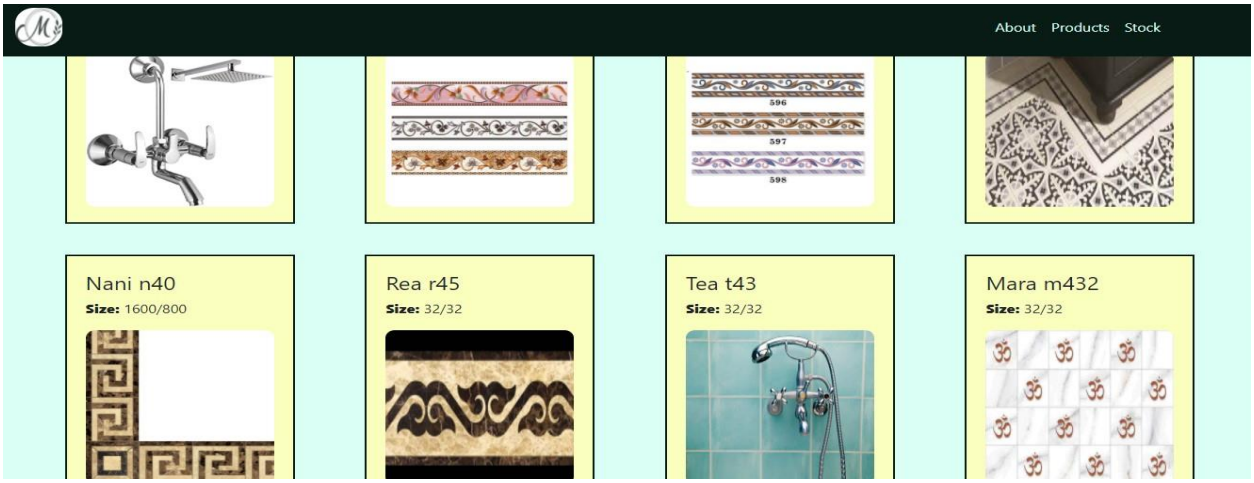

Fig 4.6 (b) Accessories page

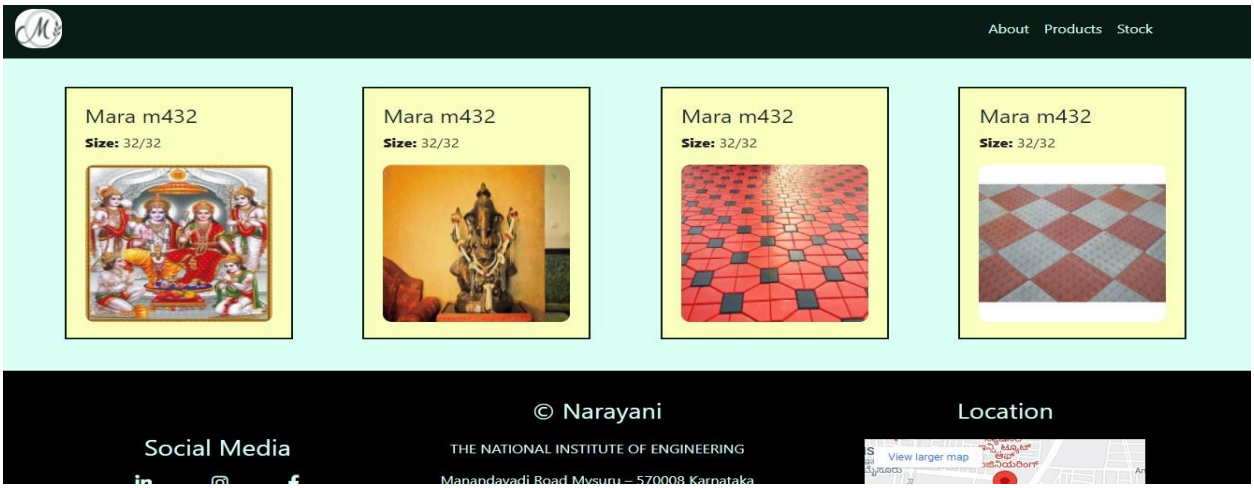

Fig 4.6 (c) Accessories page

4.2 Back end

Backend is used in making stock page. It has different options like add name, add size, sales entry, purchase entry, graphs, Today's sales, out of stock list, total stock, and all display products sold in the company. We have used PHP language to connect database to front end.

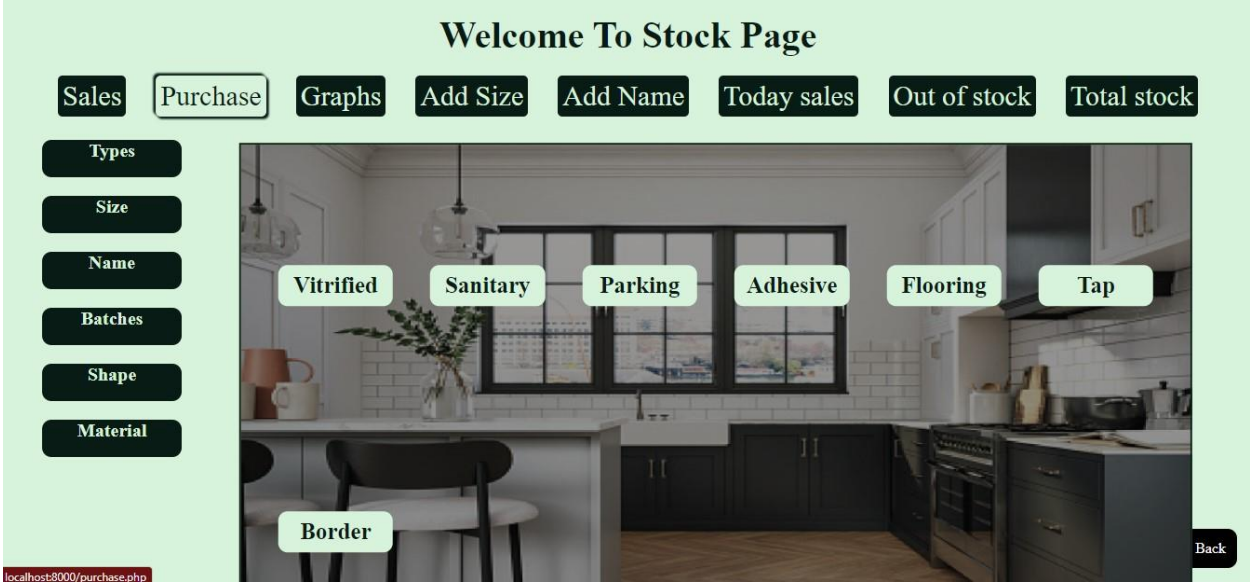

Fig 4.7 (a) Homepage of stock

Fig 4.7 (b) Different types of products

Fig 4.7 (c) Today's sales

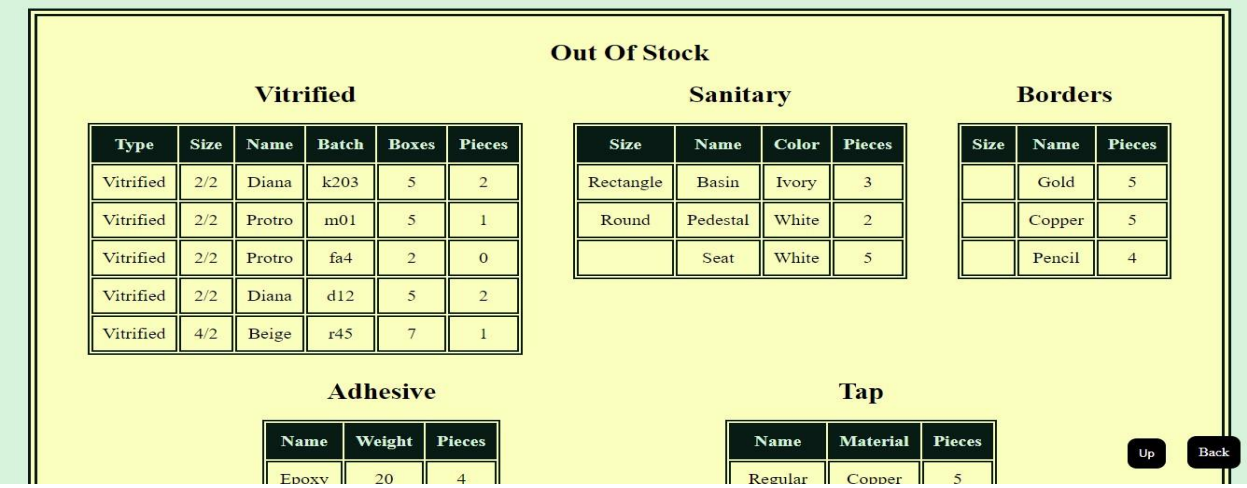

Fig 4.7 (d) Out of stock

Fig 4.7 (e) Total stock

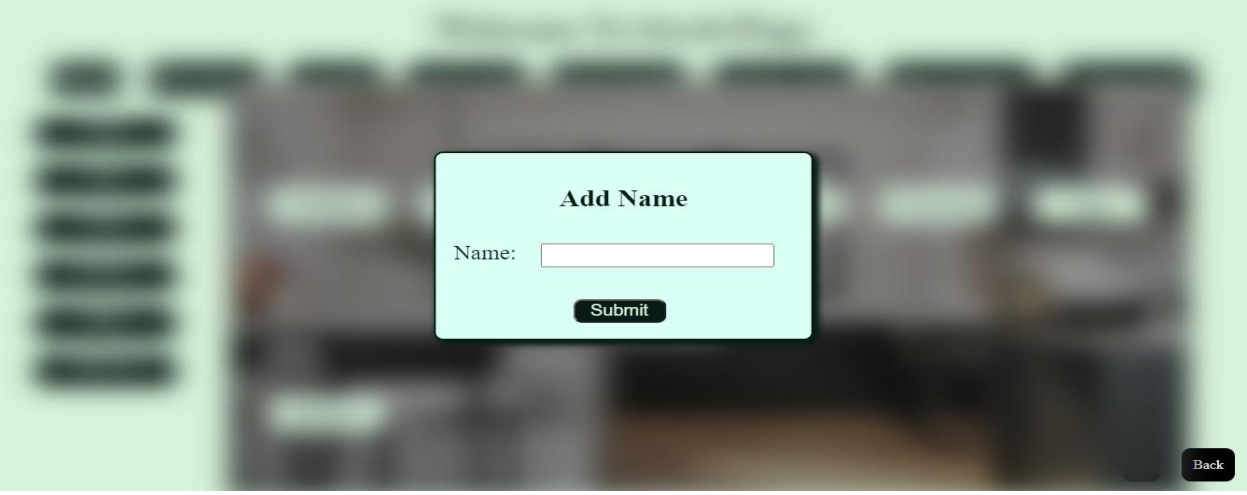

Fig 4.8 (a) Add name option

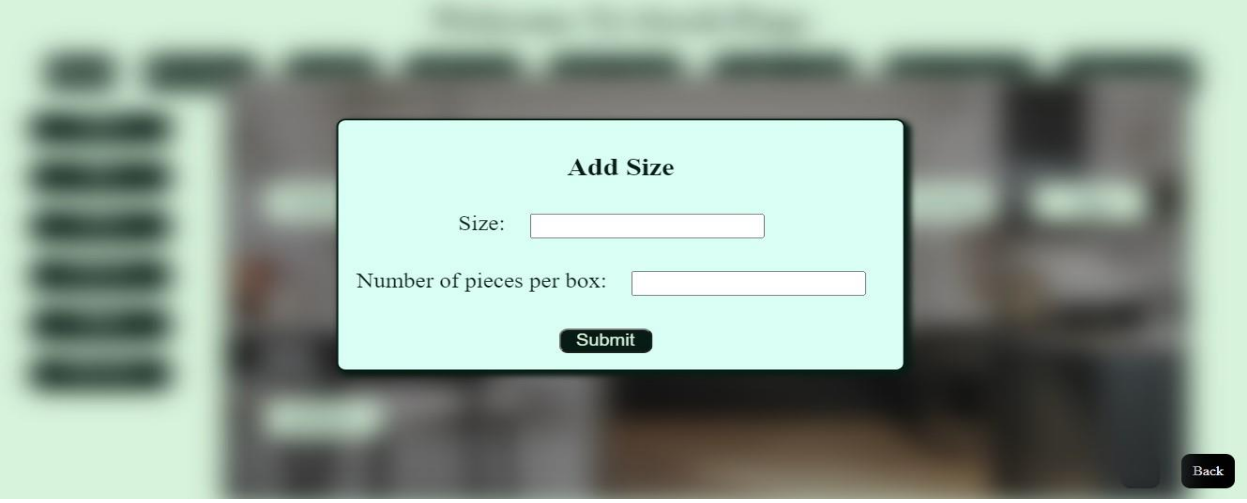

Fig 4.8 (b) Add size option

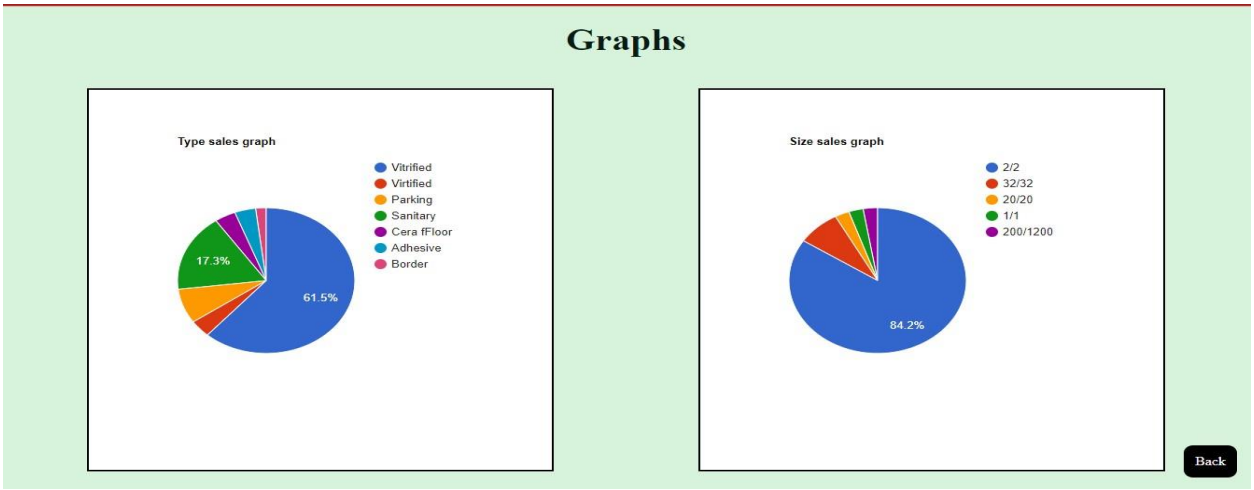

Fig 4.9 Graphical display of sales

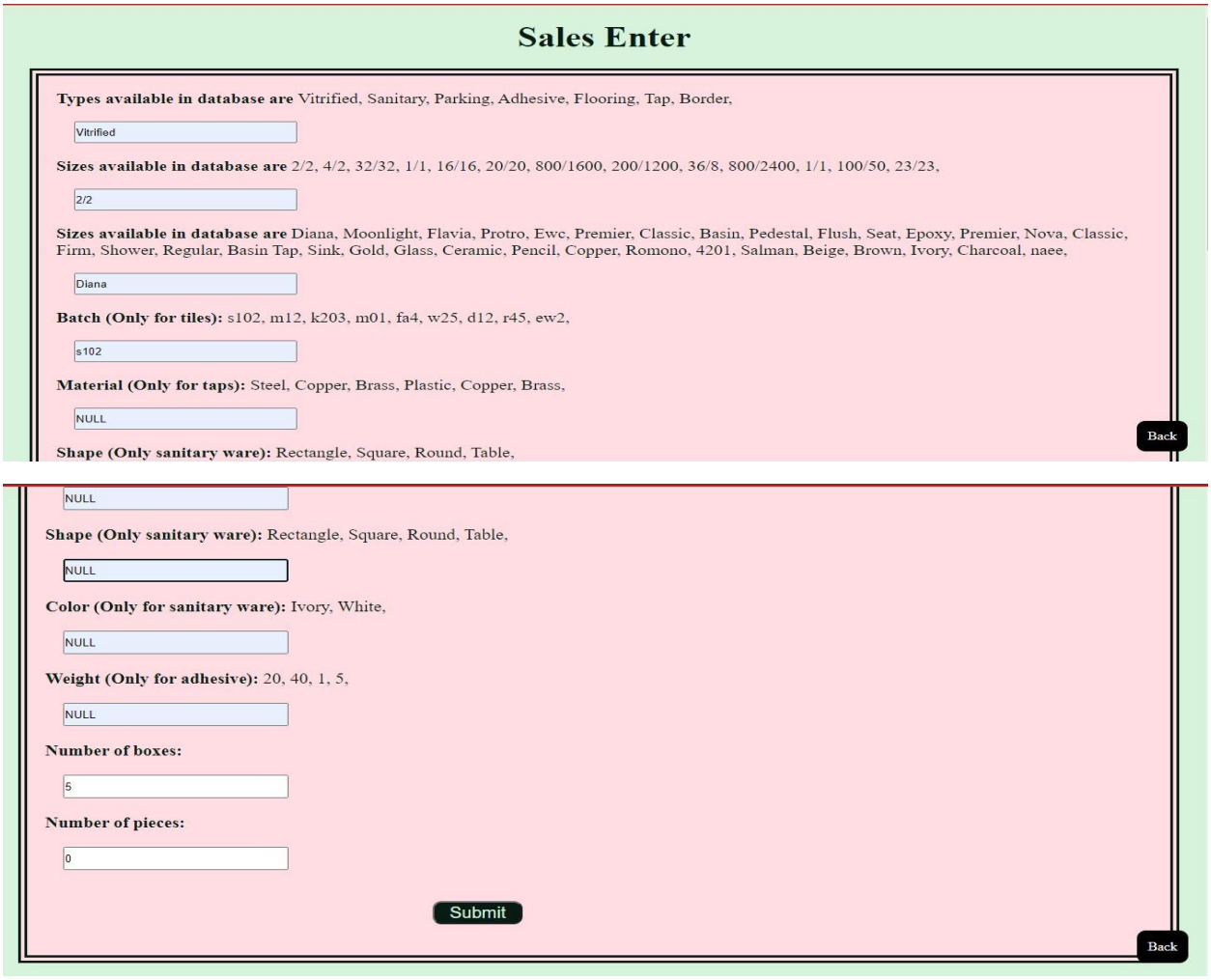

Fig 4.10 (a) Sales entry form

Records added successfully

Type	Size	Name	Batch	Box	Pieces
Vitrified	2/2	Diana	s102	35	1
Vitrified	2/2	Protro	m12	15	3
Vitrified	2/2	Diana	k203	5	2
Vitrified	2/2	Protro	m01	5	1
Vitrified	2/2	Protro	fa4	2	0
Vitrified	2/2	Diana	w25	50	0
Vitrified	2/2	Diana	d12	5	2
Vitrified	4/2	Beige	r45	7	1
Vitrified	4/2	Beige	ew2	10	0

Back

Fig 4.10 (b) Stock display after sales entry

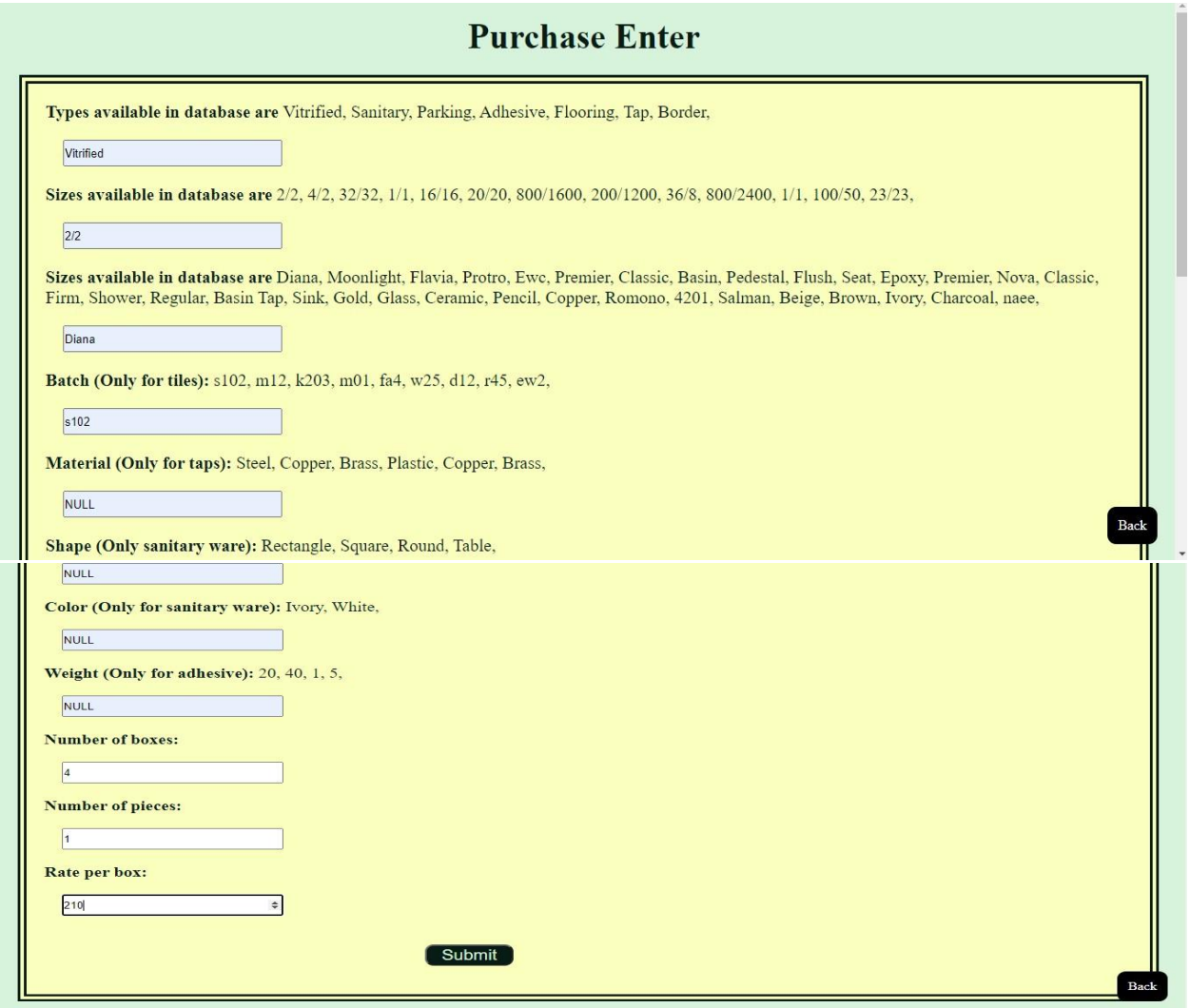

Fig 4.11 (a) Purchase entry form

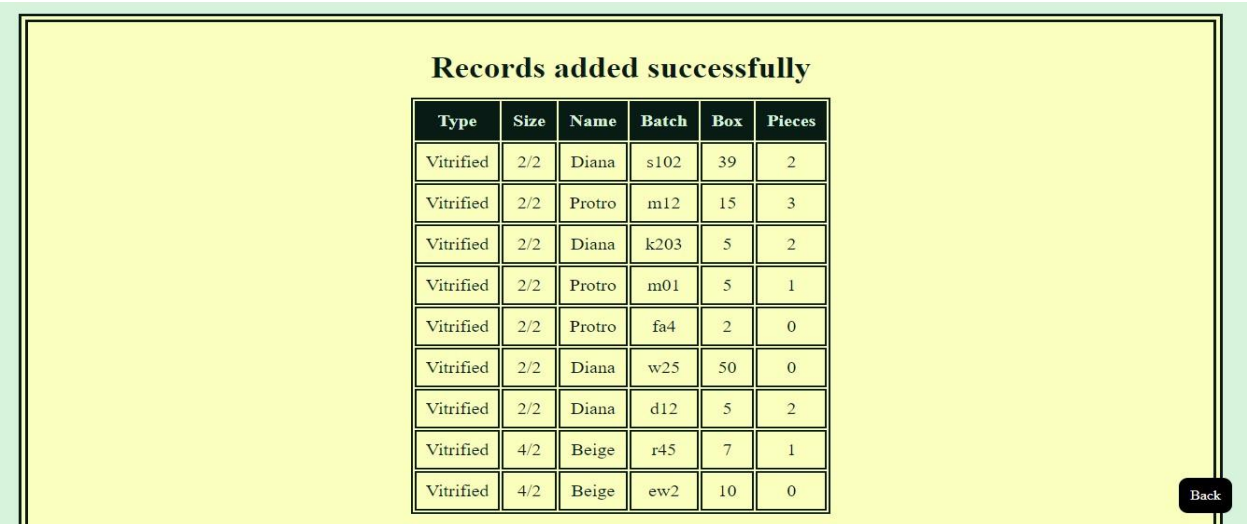

Fig 4.11 (b) Stock display after purchase entry

4.3 Database

idadhe	name	weight	piece	rate
1	13	20	4	100
2	15	40	9	500
3	17	40	8	450
4	16	1	7	300
5	16	5	12	200
6	14	5	30	150
7	13	1	20	550
8	14	20	25	120
9	15	1	22	360
10	17	5	21	375

Fig 4.12 Adhesive table

idname	namename
1	Diana
2	Moonlight
3	Flavia
4	Protro
5	Ewc
7	Premier
8	Classic
9	Basin
10	Pedestal
11	Flush

Fig 4.13 Name table

idborder	size	name	piece	rate
1	NULL	22	5	60
2	NULL	26	5	150
3	NULL	25	4	400
4	NULL	23	25	20
5	NULL	24	15	360
6	NULL	23	20	230
7	NULL	25	23	150
NULL	NULL	NULL	NULL	NULL

Fig 4.14 Border table

idpurchase	date	type	size	name	batch	material	shape	color	weight	box	piece	rate
1	2022-01-03	Vitrified	2/2	Diana	s102	NULL	NULL	NULL	NULL	5	1	210
2	2022-01-03	Vitrified	2/2	Diana	s102	NULL	NULL	NULL	NULL	5	1	210
3	2022-01-03	Cera fFloor	32/32	Flavia	fa4	NULL	NULL	NULL	NULL	4	0	NULL
4	2022-01-07	Vitrified	2/2	Diana	s102	NULL	NULL	NULL	NULL	2	0	210
5	2022-01-07	Vitrified	2/2	Diana	s102	NULL	NULL	NULL	NULL	2	0	210
6	2022-01-07	Vitrified	NULL	Basin	NULL	NULL	Rectangle	Ivory	NULL	0	2	NULL
7	2022-01-07	Vitrified	NULL	Basin	NULL	NULL	Rectangle	Ivory	NULL	0	2	NULL
8	2022-01-07	Sanitary	NULL	Basin	NULL	NULL	Rectangle	Ivory	NULL	0	3	210
9	2022-01-07	Vitrified	2/2	Diana	s102	NULL	NULL	NULL	NULL	3	2	NULL
10	2022-01-07	Vitrified	1/1	Diana	s102	NULL	NULL	NULL	NULL	1	1	NULL

Fig 4.15 Purchase table

idsales	date	type	size	name	batch	material	shape	color	weight	box	piece
1	2021-12-29	Vitrified	2/2	Diana	s102	Copper	Rectangle	Ivory	10	10	5
2	2021-12-29	Virtified	2/2	Diana	s102	NULL	NULL	NULL	NULL	5	4
3	2021-12-29	Vitrified	2/2	Diana	s102	NULL	NULL	NULL	NULL	18	2
4	2021-12-29	Virtified	2/2	Diana	s102	NULL	NULL	NULL	NULL	15	0
5	2021-12-29	Parking	2/2	Diana	s102	NULL	NULL	NULL	NULL	50	1
6	2021-12-29	Sanitary	NULL	Basin	NULL	NULL	Square	White	NULL	0	4
7	2021-12-29	Sanitary	NULL	Basin	NULL	NULL	Square	White	NULL	0	5
8	2021-12-29	Parking	32/32	Moonlight	m12	NULL	NULL	NULL	NULL	20	3
9	2021-12-30	Vitrified	32/32	Flavia	m122	NULL	NULL	NULL	NULL	NULL	NULL
10	2021-12-31	Parking	20/20	Protro	fa4	NULL	NULL	NULL	NULL	NULL	NULL

Fig 4.16 Sales table

idsani	size	name	color	piece	rate
1	Rectangle	9	Ivory	3	400
2	Square	9	White	10	500
3	Round	10	White	2	800
4	Table	9	Ivory	15	200
5	NULL	5	White	20	500
6	NULL	5	Ivory	12	350
7	NULL	11	White	10	100
8	NULL	12	Ivory	25	50
9	NULL	12	White	5	100
10	NULL	11	Ivory	30	50

Fig 4.17 Sanitary table

idsize	namesize	piecesbox
1	2/2	4
2	4/2	2
3	32/32	3
4	1/1	8
5	16/16	5
6	20/20	3
7	800/1600	2
8	200/1200	5
9	36/8	4
10	800/2400	1

Fig 4.18 Size table

idtap	name	material	piece	rate
1	18	Steel	20	400
2	20	Copper	10	150
3	21	Brass	15	200
4	19	Plastic	17	300
5	19	Copper	5	200
6	20	Brass	2	250

Fig 4.19 Tap table

idtype	nametype
1	Vitrified
2	Sanitary
3	Parking
4	Adhesive
5	Flooring
6	Tap
7	Border

Fig 4.20 Type table

idvitri	type	size	name	batch	box	piece	rate
1	1	1	1	s102	39	2	210
2	1	1	4	m12	15	3	385
3	1	1	1	k203	5	2	200
4	1	1	4	m01	5	1	450
5	1	1	4	fa4	2	0	400
6	1	1	1	w25	50	0	350
7	1	1	1	d12	5	2	310
8	1	2	30	r45	7	1	375
9	1	2	30	ew2	10	0	300

Fig 4.21 Vitrified table

Chapter-5

System Testing

5.1 Introduction

Testing is very important and critical to the success of any project that aims at delivering working software. There are many types of testing that a system may be subjected to, however only the ones in the testing objectives will be carried out for this system.

The overall purpose of testing is to ensure that this system meets all of its functional and business requirements. The purpose of this chapter is to describe the overall test plan and strategy for testing the system.

The goal is testing this system include validating the quality, usability, reliability and performance on the application. Testing will be designed around requirements and functionality.

5.2 Confirmation Testing

When a test fails, the defect is reported and a new version of the software is expected to have them fixed. In that case, we need to execute the test again to confirm whether the defect is fixed or not. This is known as confirmation testing also known as re-testing. It is important to ensure that the test is executed in the same way it was done for the first time using the same inputs, data, and environments. Hence, when changes are made to fix then confirmation testing or re-testing is helpful.

5.3 Regression Testing

During confirmation testing, the defect got fixed and that part of the application started working as intend. But there might be a possibility that the fix may have introduced a different defect elsewhere in the software.

Chapter-6

Conclusion

This database was successfully created and has stored all the details regarding tiles stock. The database was tested very well and the errors were properly debugged. The test also concluded that the performance of the database was very robust. All the necessary output was generated. This system thus provides an easy way to store all the data regarding the tiles. It was concluded that the application works very well and satisfies the needs. Hence, the front end is available to provide a good user interface and real-time access to the data. Hence, the whole project is concluded.

References

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