

Project Report on Shopping Mall Management System

For the partial fulfillment of Database Management System
Laboratory (CS15203)

Submitted By
Sonu Kr Shah
(Roll No.: B1900091CS)
Under the Supervision of **Dr. Sangram Ray**

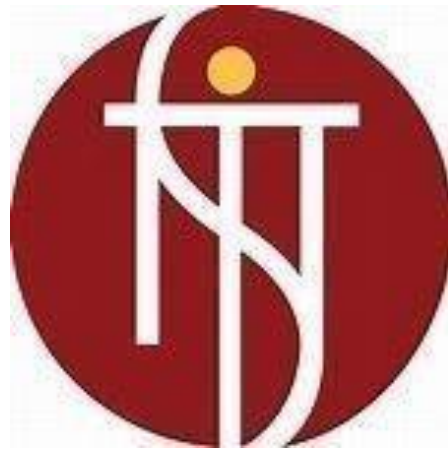
Department of Computer Science and Engineering



NATIONAL INSTITUTE OF TECHNOLOGY SIKKIM
Ravangla, South Sikkim-737139

2021

CERTIFICATE



This is to certify that the project report entitled “Shopping Mall Management System”, submitted by Mr. Sonu Kr Shah bearing Roll No. B190091CS is an authentic report for the work carried out under my supervision as a part of Database Management System Laboratory during the Monsoon semester, 2021 at National Institute of Technology Sikkim, Ravangla-737139, Sikkim.

Dr. Sangram Ray
Dean of Student Affairs & Assistant Professor
Department of Computer Science and Engineering
National Institute of Technology Sikkim Ravangla-737139, Sikkim,
India

ACKNOWLEDGEMENT

First and foremost, I would like to express my deepest gratitude to my supervisor, **Dr. Sangram Ray**. It has been an honor for me to do a project under his supervision and sincerely thank him for his excellent guidance, support and motivation in every step throughout the whole period of my project.

I am indeed grateful to all the faculties and staff of the National Institute of Technology Sikkim for providing an environment conducive to my project.

Finally, I would like to thank God Almighty for giving me the strength, knowledge, ability and opportunity to undertake this project study and to persevere and complete it satisfactorily.

Sonu Kr Shah

B190091CS

5th semester, 3rd year undergraduate

Department of Computer Science and Engineering

Content

Sl. No.	Contents	Page No.
1.	About the Project	5
2.	Tech Stack used	6
3.	ER-Diagram & Database Design	7-10
4.	Snapshots of Project	11-17
5.	Conclusion	18

About the Project

Shopping Mall Management System developed using MERN is an excellent solution for the growing number of shopping malls. This solution helps to identify the malls and the shops in the mall. Customers can get information about the malls and the shops in them. Admin Login to add, update and delete Malls. Mall Manager login to add update and delete shops in a mall.

Hence, the system helps the customers in gaining the mall, shop and contact details and it helps the admin and managers to manage the large data of shopping malls and shops.

Main features are:

1. Malls Management
2. Shops Management

Objectives:

1. Add malls.
2. View Mall Details to persons.
3. Update and Delete different values in the mall entity.
4. Add shops to mall such that each shop is unique to a mall.
5. View Shop details to persons.
6. Update and delete different values in the shop entity.
7. Admin login

Tech-Stack Used

The project is build using MERN i.e., MySQL, ExpressJS, ReactJS, NodeJS.

The front-end of the project is build using React JS.

JSX is used that provides the basic structure of sites, which is enhanced and modified by other technologies like CSS.

CSS is used to control presentation, formatting, and layout.

JavaScript is used to control the behaviour of different elements

I have also used **Bootstrap** (version 5) framework for easy reuse of components and making the website responsible.

For backend **NodeJs and ExpressJS** has been used.

NodeJS is used in some for building some biggest social networking platforms like Facebook, LinkedIn etc. In fact, ReactJS is developed and maintained by a team of developers of Facebook itself.

The back -end database used in this project is **MySQL**

It is a language used to interrogate and process data in a relational database. Originally developed by IBM for its mainframes, SQL commands can be used to interactively work with a database or can be embedded within a script or programming language as an interface to a database. Programming extensions to SQL have turned it into a full-blown database programming language, and all major database management systems (DBMSs) support it.

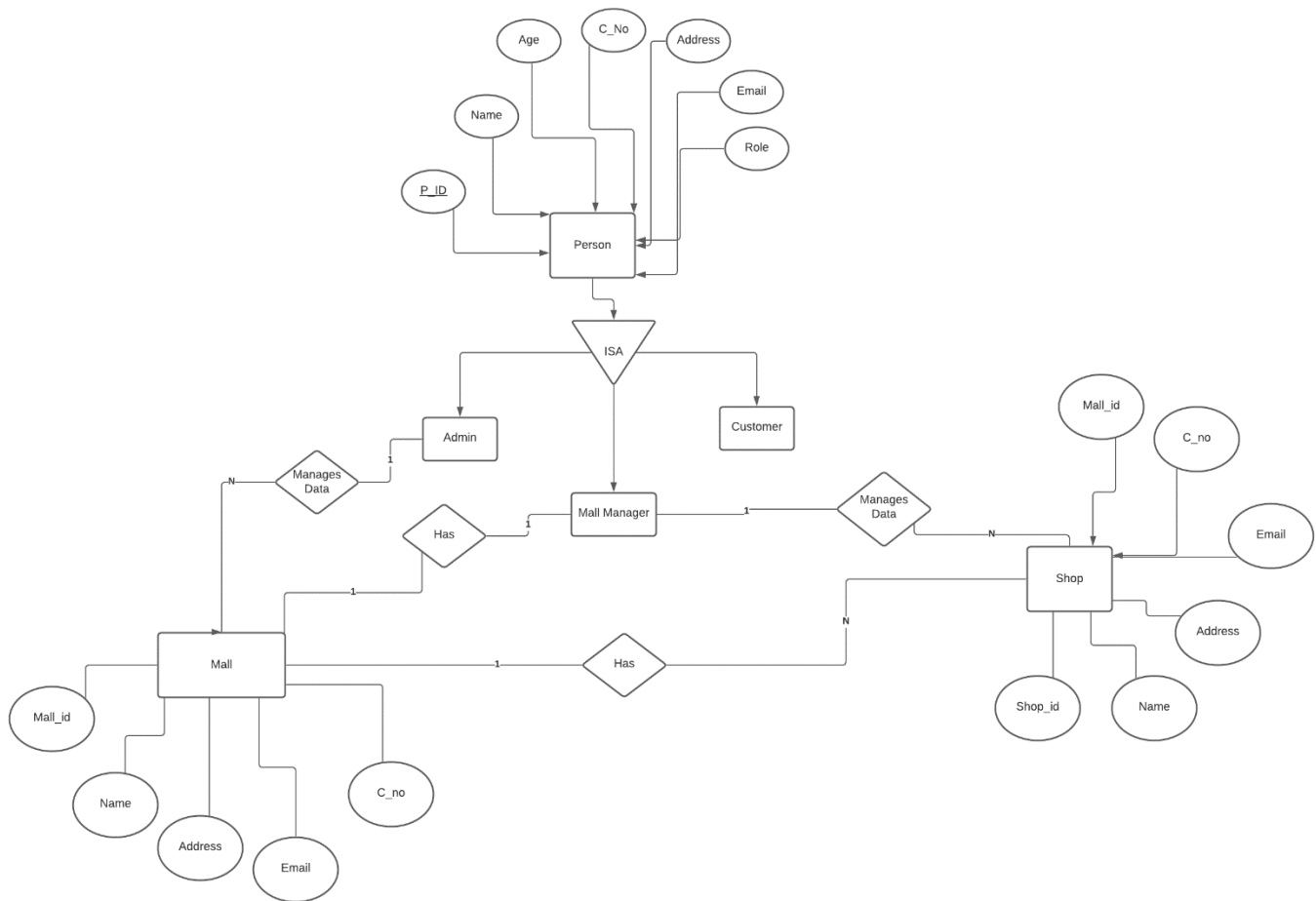
ANSI standardized SQL.

But most DBMSs have some proprietary enhancement, which if used, makes SQL nonstandard. Moving an application from one SQL database to another sometimes requires tweaking, the age-old problem in this business!

Advantages of MySQL:

1. SQL Queries can be used to retrieve large amounts of records from a database quickly.
2. SQL is used to view the data without storing the data into the object
3. SQL joins two or more tables and show it as one object to user
4. SQL databases use long-established standard, which is being adopted by ANSI & ISO. Non -SQL databases do not adhere to any clear standard.
5. Using standard SQL, it is easier to manage database systems without having to write substantial amount of code

E-R diagram



RELATIONAL SCHEMA

- persons (P_id, Name, Age, Gender, C_NO, Address, Email_ID, Password, Role)
- mall (Mall_id, Name, Address, Email_ID, C_no, Description)
- shops (Shop_id, Name, Address, Email, C_No, Mall_id)

Database Design

Persons

The screenshot shows the SQL Enterprise Manager interface with the 'mail_manager' table selected. The table structure is as follows:

P_id	Name	Age	Gender	C_No	Address	Email_ID	Password	Role
1	Sonu Kr Shah	21	Male	1231231231	ABC street	admin@admin.com	admin	XYZ City Gangtok Sikkim
2	Sonu	20	Male	9999999999	Hello street	sonu@sonu.com	admin	XYZ City Sikkim
3	Tom Shaw	22	Male	2222222222	Tom street	tom@tom.com	MM	XYZ City Shaw
4	Mike Tyson	48	Male	6767676767	Mike street	mike@mike.com	MM	ABC City Tyson
5	Sally Kelly	30	Female	2121212121	Sally street	sally@sally.com	MM	MM

The 'Output' pane shows the execution of the following queries:

```

1. INSERT INTO persons (P_id, Name, Age, Gender, C_No, Email_ID, Password, Address, Role) VALUES (5, "Sally Kelly", 30, "Female", "2121212121", "sally@sally.com", "MM", "Sally street", "MM");
2. SELECT * FROM persons;

```

Malls

The screenshot shows the SQL Enterprise Manager interface with the 'mail' table selected. The table structure is as follows:

Mall_id	Name	Email_ID	C_no	Address	Description
3	City Center Mall	city@city.com	9090909090	Siliguri	Sample Text City Center
7	Big Bazar	bazar@big.com	1234567891	Gangtok	Best mall in whole town
8	Lal Bazar	Lal@Bazar.com	12345678	Gangtok	hello World

The 'Output' pane shows the execution of the following queries:

```

1. -- INSERT INTO persons (P_id, Name, Age, Gender, C_No, Email_ID, Password, Address, Role) VALUES (5, "Sally Kelly", 30, "Female", "2121212121", "sally@sally.com", "MM", "Sally street", "MM");
2. SELECT * FROM mail;

```

Shop

The screenshot displays the ShoppingMallManagementSystem application. The interface includes a menu bar (File, Edit, View, Query, Database, Server, Tools, Scripting, Help), a toolbar, and a Navigator pane on the left showing the database schema. The main area is divided into a Query Editor and a Result Grid.

Query Editor: The query being executed is:

```
-- INSERT INTO persons (P_id, Name, Age, Gender, C_No, Email_ID, Password, Address, Role) VALUES (5, "Sally Kelly", 30, "Female", "2121212121", "sally@sal
SELECT * FROM shops;
```

Result Grid: The result grid shows the following data:

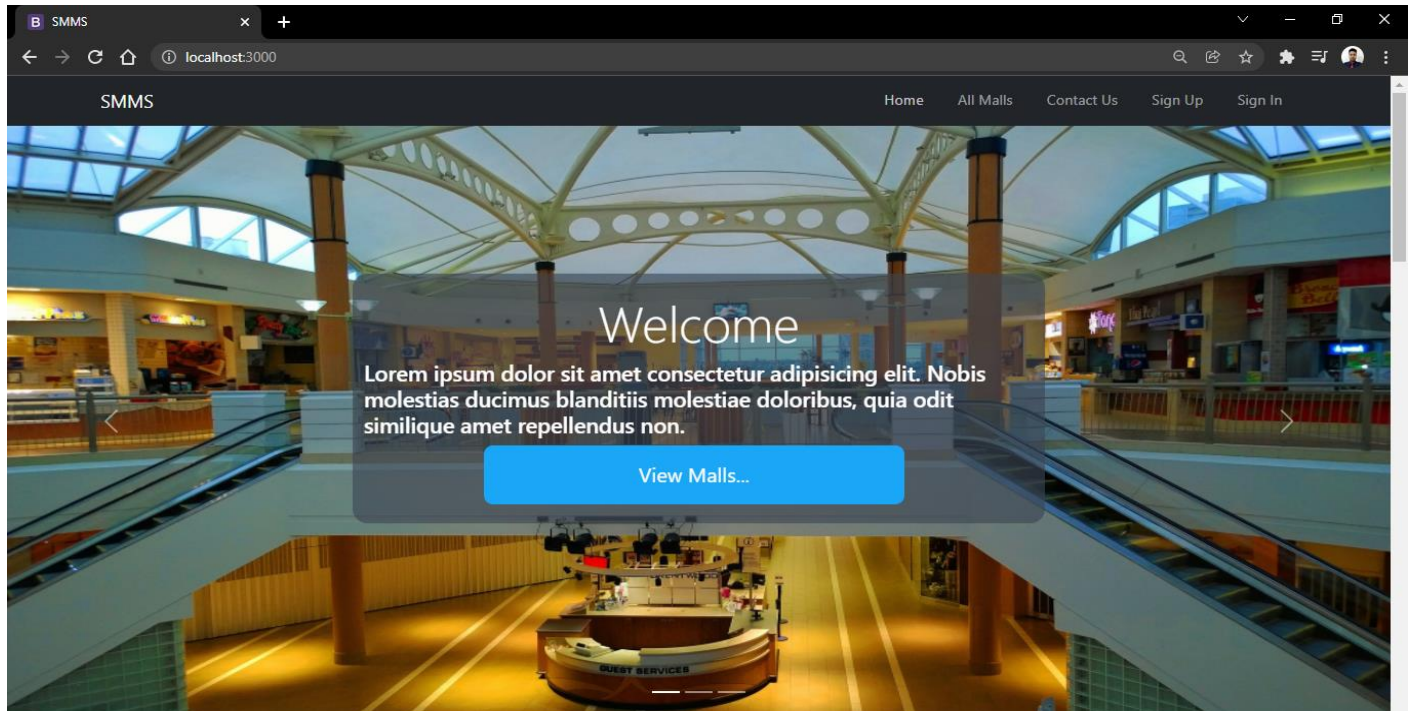
Shop_id	Name	C_no	Email	Address	Mall_id
4	Leo Toys	999900009	leo@leo.com	Singtam	2
5	Addidas	888811118	adi@das.com	Ravangla	2
6	Crocs Store	3434343434	crocs@crocs.com	Gangtok	1
7	Sweets Stop	1010101010	sweet@sweet.com	Ravangla	3
8	Shoes For All	4040404040	shoes@shoes.com	Singtam	1
9	Fastfood Store	5656565656	fast@food.com	Gangtok	3
	NULL	NULL	NULL	NULL	NULL

Output Log: The output log shows the execution of the query and the resulting data.

#	Time	Action	Message	Duration / Fetch
4	00:41:57	SELECT * FROM shops LIMIT 0, 1000	3 row(s) returned	0.141 sec / 0.000 sec
5	00:45:02	Apply changes to mail	Changes applied	
6	00:45:17	SELECT * FROM persons LIMIT 0, 1000	12 row(s) returned	0.016 sec / 0.000 sec
7	00:45:17	SELECT * FROM mail LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
8	00:45:17	SELECT * FROM shops LIMIT 0, 1000	3 row(s) returned	0.032 sec / 0.000 sec
9	00:56:27	DROP TABLE 'mail_management_system'. 'mail_manager'	0 row(s) affected	0.531 sec
10	00:56:28	DROP TABLE 'mail_management_system'. 'sakila'	0 row(s) affected	0.005 sec

SNAPSHOTS

Home-Page (Landing page)



About Us

Lorem ipsum dolor sit amet consectetur adipisicing elit. Aliquid vel eaque hic voluptatem ducimus, aspernatur odio fugit asperiores possimus cum. Voluptatibus ipsum impedit fugiat cum necessitatibus aspernatur eos nostrum magni omnis, consequuntur, minus eaque porro eius. Beatae nisi natus quod ipsa ipsam doloremque inventore. Veritatis et maxime repudiandae nobis, itaque ad necessitatibus perspiciatis animi facilis, officia accusantium distinctio nisi, consequatur laboriosam blanditiis. Dolorum ex odio corrupti voluptas autem dolor dolore dolorem adipisci corporis magni perspiciatis laborum voluptatem, repellendus nihil suscipit consequatur ad expedita dignissimos eius, eveniet qui. Magnam, mollitia. Suscipit fuga molestias dolores voluptatibus, facilis praesentium nemo illum animi et eius illo quaerat a pariatur maxime dolor quidem. Pariatur ea, veritatis suscipit laborum nisi deleniti, quia autem repudiandae id nihil optio consectetur eveniet excepturi nulla consequuntur illum! Autem odit magni sapiente suscipit necessitatibus ducimus dolor in neque dolore laboriosam consequatur modi iste dicta minima ipsa eveniet amet perferendis, doloremque sunt error? Id debitis voluptatum labore est obcaecati, voluptatem ex sed eos expedita accusantium delectus iste saepe neque eaque repudiandae quos quaerat nulla ea fugit reiciendis. Culpa voluptatum odio vel et! Necessitatibus repellendus non provident ullam omnis rem recusandae, pariatur quibusdam ad accusamus expedita assumenda dolorum placeat iste quidem molestias esse!



Signup page

The screenshot shows a web browser window with the URL `localhost:3000/login`. The page title is "Shopping Mall Management System". The navigation bar includes links for Home, All Malls, Contact Us, Sign Up, and Sign In. The main content area is titled "Sign Up" in pink. It contains a form with the following fields: Name, Age, Gender, Phone No., Email Id, Password, and Address. Each field has a placeholder text "Enter your [field name]". Below the form are two blue buttons: "Sign In" and "Reset".

- Normal Signup as a customer

Signin page

The screenshot shows a web browser window with the URL `localhost:3000/signin`. The page title is "Shopping Mall Management System". The navigation bar includes links for Home, All Malls, Contact Us, Sign Up, and Sign In. The main content area is titled "Sign In" in pink. It contains a form with the following fields: Email Id and Password. Each field has a placeholder text "Enter your [field name]". Below the form are two blue buttons: "Login" and "Reset".

- Admin Sign in
- Mall Manager Sign in
- Customer Sign

Logged In (Admin)

- Add New Mall

SMMS

localhost:3000/addmall

Home All Malls Add Mall Logout

Add New Mall

Mall Details :

Name :

Email Id :

Contact No. :

Address :

Address :

Manager Details :

Name :

Age :


- Update and Delete Operations on Malls

SMMS

localhost:3000/allMalls


Home All Malls Add Mall Logout

ALL MALLS



Name : City Center Mall
Contact No : 9090909090
Email ID : city@city.com
Address : Siliguri
Description - Sample Text City Center

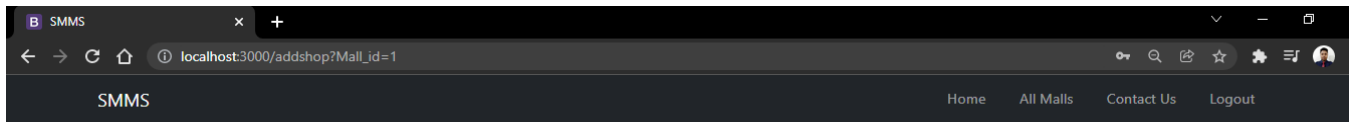
[View More](#) [Delete Mail](#) [Update Details](#)



Name : Big Bazar

Logged In (Mall Manager)

1. Add Shop



Add New Shop

Shop Details :

Shop Name :

Email Id :

Contact No. :

Address :

[Add Shop](#) [Reset Form](#)

2. Delete and Update Shop Details



Shops



Noodlara

Lorem ipsum dolor sit, amet consectetur adipisicing elit. Illo impedit eligendi optio. Consequatur perspiciatis corporis ab facere, optio eius obcaecati nulla dolorum vero dolor eveniet, eum explicabo saepe. Inventore voluptate aperiam pariatur. Voluptas consequatur ducimus debitis minima mollitia ut nobis, quia dignissimos ex odit amet facere beatae similique quibusdam autem.

Address : Nam Nang
 Email Id : thisss@this.com
 Contact No : 123456789

[View More](#) [Delete Shop](#) [Updated Details](#)

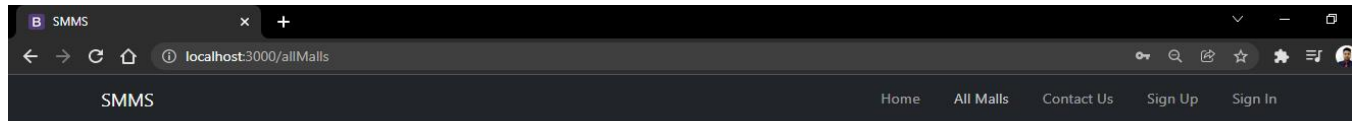


Crocs Store

Lorem ipsum dolor sit, amet consectetur adipisicing elit. Illo impedit eligendi optio. Consequatur perspiciatis corporis ab facere, optio

Logged In (Customer)

1. View Malls



ALL MALLS



Name : City Center Mall
Contact No : 9090909090
Email ID : city@city.com
Address : Siliguri
Description - Sample Text City Center

[View More](#)



Name : Big Bazar

2. View Individual Mall and Shops in it

SMMS


localhost:3000/SpecificMall?Id=1

Home All Malls Contact Us Sign Up Sign In


City Center Mall

Sample Text City Center
Lorem ipsum dolor sit, amet consectetur adipisicing elit. Illo impedit eligendi optio. Consequatur perspiciatis corporis ab facere, optio eius obcaecati nulla dolorum vero dolor eveniet, eum explicabo saepe. Inventore voluptate aperiam pariatur. Voluptas consequatur ducimus debitis minima mollitia ut nobis, quia dignissimos ex odit amet facere beatae similique quibusdam autem.

Address : Siliguri
Email Id : city@city.com
Contact No : 9090909090



Shops




Noodlara

Lorem ipsum dolor sit, amet consectetur adipisicing elit. Illo impedit eligendi optio. Consequatur perspiciatis corporis ab facere, optio eius obcaecati nulla dolorum vero dolor eveniet, eum explicabo saepe. Inventore voluptate aperiam pariatur. Voluptas consequatur ducimus debitis minima mollitia ut nobis, quia dignissimos ex odit amet facere beatae similique quibusdam autem.

Address : Nam Nang
Email Id : thisss@this.com
Contact No : 123456789

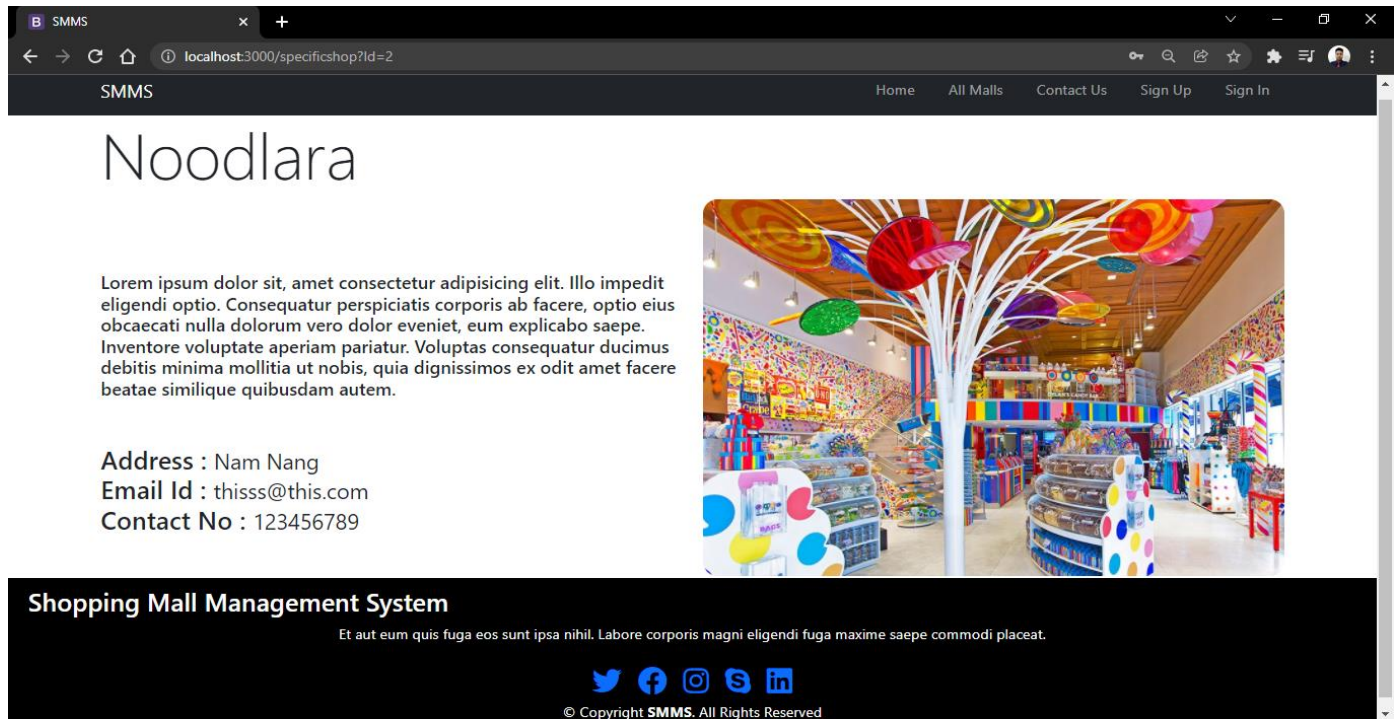
[View More](#)



Crocs Store

Lorem ipsum dolor sit, amet consectetur adipisicing elit. Illo impedit eligendi optio. Consequatur perspiciatis corporis ab facere, optio

3. View Individual Shops



SMMS

localhost:3000/specificshop?id=2

Home All Malls Contact Us Sign Up Sign In

Noodlara

Lorem ipsum dolor sit, amet consectetur adipisicing elit. Illo impedit eligendi optio. Consequatur perspiciatis corporis ab facere, optio eius obcaecati nulla dolorum vero dolor eveniet, eum explicabo saepe. Inventore voluptate aperiam pariatur. Voluptas consequatur ducimus debitis minima mollitia ut nobis, quia dignissimos ex odit amet facere beatae similique quibusdam autem.

Address : Nam Nang
Email Id : thisss@this.com
Contact No : 123456789

Shopping Mall Management System

Et aut eum quis fuga eos sunt ipsa nihil. Labore corporis magni eligendi fuga maxime saepe commodi placeat.

© Copyright SMMS. All Rights Reserved

Conclusion

The main motive of making this project was to make managing a management system for managing the huge data of malls and shops and presenting it in a convenient manner so that the unsophisticated and untrained user can also understand it. While developing this project I have learnt a lot about ReactJS/NodeJS/JavaScript(Language used)/ExpressJS/MySQL and working with database management, I have also learnt how to make the application user-friendly (easy to use and handle) by hiding the complicated parts of it from the users. During the development process, I studied carefully and understood the criteria for making a software more demanding, I also realized the importance of maintaining a minimal margin for errors.