



UE21CS352B - Object Oriented Analysis & Design using Java

Mini Project Report

“Event Management System”

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Synopsis

The Event Management Portal is a web-based platform aimed at simplifying event organization and coordination. Users can register, browse, and book hotels, catering services, vendors, decorators, makeup artists, photographers and add-ons through an intuitive interface. The users can specify the number of guests for seamless experience. Administrators oversee bookings, events, and user accounts via a centralized dashboard, ensuring smooth operations along with secure payment information, guest details and event information. With a focus on usability and efficiency, the portal streamlines event management tasks for both users and administrators, enhancing the overall event planning experience.

Architecture:

The application employs the model - view - controller (MVC) architecture pattern, a widely used design patterns in software engineering. MVC separates an application into three interconnected components, facilitating better organization, maintainability, and scalability.

1 . Model Component

The Model component manages the application's data, business logic, and rules independently of the user interface. It handles data storage, retrieval, and manipulation, ensuring consistency and integrity.

Characteristics:

- **Data Management:** Models store and manipulate data structures pertinent to the application's domain.
- **Business Logic:** Contains algorithms and rules governing data processing and behavior.
- **Change Notification:** Notifies views of any data changes, enabling real-time updates.

This includes entities such as venues, vendors, events, bookings, and user details.

2 . View Component

The View component manages the user interface (UI) and presentation logic of the application.

Characteristics

- User Interaction: Renders graphical or textual output to users and captures user input.
- Multiple Views: Supports multiple views for a single model, facilitating diverse presentation options.
- Passive Strategy: Implements a passive view approach, separating UI logic from data processing.

It displays data from the Model to users and forwards user commands to the Controller.

Views display information retrieved from the Model and provide user-friendly interfaces for performing actions such as booking venues, and managing events.

3 . Controller Component The Controller component acts as an intermediary between the Model and View, handling user input and application logic. It interprets user actions, manipulates data in the Model, and updates the View accordingly. It handles user requests, processes input data, and updates the Model based on user interactions.

Characteristics:

- Event Handling: Processes user events initiated in the View and triggers corresponding actions.
- Coordinating Role: Determines appropriate responses to user interactions, orchestrating interactions between Model and View.
- Input Conversion: Converts user inputs into commands for the Model or View, facilitating data processing.

In our event management portal, Controllers receive requests from users, invoke appropriate methods in the Model to perform actions (e.g., adding a booking, updating event details), and render the corresponding Views to display the results.

Design Principles

Single Responsibility Principle (SRP):

Each method in the controller seems to have a single responsibility. For example, methods like home(), login(), register(), contactus(), etc., handle specific HTTP requests and return corresponding views. The controller delegates business logic to service classes, ensuring separation of concerns.'

Open/Closed Principle (OCP):

The controller methods are open for extension (e.g., adding new functionalities) but closed for modification. Adding new features would involve adding new methods or modifying existing methods, without changing their core implementation.

Liskov Substitution Principle (LSP):

The controller methods interact with service classes through interfaces, allowing different implementations of these services to be used interchangeably without affecting the behavior of the controller.

Design Pattern

Factory Design Pattern:

In the Factory design pattern, a factory class (e.g., ServiceFactory) is responsible for creating instances of various service classes (e.g., HotelService, CateringService). This decouples the client code from the concrete implementations of services, allowing for easier maintenance and flexibility in changing or adding new service types.

Builder Design Pattern:

The Builder design pattern facilitates the construction of complex objects step by step. In this pattern, a builder class (e.g., RequestBuilder) is responsible for constructing a complex object (e.g., Request) by guiding the client through a series of method calls to set various attributes or parameters. This pattern allows for the creation of different configurations of the object using the same building process, promoting code reusability and flexibility.

Singleton Design Pattern:

The Singleton design pattern ensures that a class has only one instance and provides a global point of access to that instance. In this pattern, a class (e.g., ConfigurationManager) ensures that only one instance of itself is created and provides a static method (e.g., getInstance()) to access that instance. This pattern is useful for managing resources that should be shared across the application, such as configuration settings or database connections.

ADMIN:

The screenshot displays the Admin Dashboard interface. On the left, a sidebar menu lists: Dashboard, Users, Hotels, Events, Caterings, Vendors, and Booking Details. Below these are Accounts and Logout buttons. The main area is titled "ADMIN DASHBOARD" and "Welcome Miss. Shreya M Bharathi". It features a section titled "MINIMAL STATISTICS CARDS" with the following data:

Category	Value	Icon
Total Users	5	User icon
Total Hotels	3	Hotel icon
Total Events	3	Events icon
Total Caterings	2	Catering icon
Total Vendors	9	Vendor icon
Total Booking	8	Booking icon
Pending Bookings	0	Pending icon
Paid Bookings	6	Paid icon
UnPaid Bookings	1	Pay icon
Bookings Cancelled by Admin	0	Cancel icon
Bookings Cancelled by User	1	Cancel icon

ADMIN->USER DETAILS

ADMIN

- Dashboard
- Users
- Hotels
- Events
- Caterings
- Vendors
- Booking Details

Accounts

Logout

USER DETAILS

Welcome Miss. **Shreya M Bharathi**

Value To Search **Search** **Add User**

Select No.of.rows to display : 5

SNO	FIRST_NAME	LAST_NAME	EMAIL_ID	GENDER	CONTACT_NO	ADDRESS	ROLE	ACTION
1	Shreya M	Bharathi	shreyambharathi@gmail.com	female	6789054321	Mandy	Admin	EDIT DELETE
2	Shreya	Gowda	shreyagowda@gmail.com	female	6385470031	Pandavapura	SubAdmin	EDIT DELETE
3	Spoorti	M	spoortim@gmail.com	female	6378294437	Belagam	Admin	EDIT DELETE
4	Shreya	Rao	shreyarao412@gmail.com	female	7485683349	Udupi	Admin	EDIT DELETE
5	Shree Ganesha	Nayak	xyz@gmail.com	male	6478392345	Bangalore	User	EDIT DELETE

< 1 2 >

ADMIN->HOTEL DETAILS

ADMIN

- Dashboard
- Users
- Hotels
- Events
- Caterings
- Vendors
- Booking Details

Accounts

Logout

HOTEL DETAILS

Welcome Miss. **Shreya M Bharathi**

Value To Search **Search** **Add Hotel**

Select No.of.rows to display : 5

SNO	HOTEL_NAME	HOTEL_DESCRIPTION	HOTEL_IMG	HOTEL_PRICE	LOCATION	ACTION
1	Eagleton Hotel	Step into the epitome of luxury and refinement at Eagleton Hotel. Nestled amidst picturesque landsca...		20000	Mandy	EDIT DELETE
2	Palace Ground	Escape to Gayatri Vihar – Grand and Vruksha, where luxury meets nature's embrace. Our serene hotel o...		40000	Bengaluru	EDIT DELETE
3	Vivanta by Taj	Discover a world of timeless elegance and contemporary luxury at Vivanta by Taj. Situated in the hea...		60000	Bengaluru	EDIT DELETE

ADMIN->EVENT DETAILS

ADMIN

- Dashboard
- Users
- Hotels
- Events
- Caterings
- Vendors
- Booking Details

Accounts

 Logout

EVENT DETAILS

Welcome Miss. Shreya M Bharathi

Value To Search Search Add event

Select No.of.rows to display : 5

SNO	EVENT_NAME	EVENT_DESCRIPTION	EVENT_IMG	ACTION
1	Wedding	Embark on a journey of love and celebration at our exquisite wedding venue. With its picturesque sur...		EDIT DELETE
2	Baby Shower, Anniversary	Join us in celebrating new beginnings at our joyful baby shower! Then, raise a toast to enduring lov...		EDIT DELETE
3	Birthday, Retirement Party	Come celebrate life's milestones with us! Whether it's a joyous birthday bash or a well-deserved ret...		EDIT DELETE

ADMIN->CATERING DETAILS

ADMIN

- Dashboard
- Users
- Hotels
- Events
- Caterings
- Vendors
- Booking Details

Accounts

 Logout

Value To Search Search Add cater

Select No.of.rows to display : 5

SNO	CATER_NAME	CATER_DESCRIPTION	CATER_IMG	CATER_PRICE	LOCATION	ACTION
1	Deluxe	vegetarian		1000	chennai	EDIT DELETE
2	Super Deluxe	vegetarian and non-vegetarian		2000	Madurai	EDIT DELETE

ADMIN->VENDOR DETAILS

ADMIN

- Dashboard
- Users
- Hotels
- Events
- Caterings
- Vendors
- Booking Details

Accounts

 Logout

Value To Search Search Add vendor

Select No.of.rows to display : 5

SNO	VENDOR NAME	VENDOR DESCRIPTION	VENDOR IMG1	VENDOR PRICE	LOCATION	ACTION
1	Ganapathy	Photographer		1000	Madurai	EDIT DELETE
2	Sairaaam	Photographer		1500	Chennai	EDIT DELETE
3	Vengadesh	DJ		1000	Madurai	EDIT DELETE
4	Mohammed Reha	DJ		1500	Chennai	EDIT DELETE

ADMIN->BOOKING DETAILS

The screenshot shows the Admin Booking Details interface. On the left is a sidebar with icons for Dashboard, Users, Hotels, Events, Caterings, Vendors, and Booking Details. Below these are buttons for Accounts and Logout. The main area has a title "ADMIN BOOKINGDETAILS" and a "Download Report" button. A dropdown menu "Select No.of.rows to display:" is set to 5. The table lists bookings with columns: SNO, USER_NAME, USER_EMAIL, HOTEL_NAME, EVENT_NAME, CATERING_NAME, PHOTOGRAPHER_NAME, DJ_NAME, and a timestamp column.

SNO	USER_NAME	USER_EMAIL	HOTEL_NAME	EVENT_NAME	CATERING_NAME	PHOTOGRAPHER_NAME	DJ_NAME
1	Shreya Rao	shreyarao412@gmail.com	Eagleton Hotel	Wedding	Deluxe	Ganapathy(17)	Mohammed Rella(20)
2	Shreya Rao	shreyarao412@gmail.com	Palace Ground	Baby Shower, Anniversary	Deluxe	Ganapathy(17)	Mohammed Rella(20)
3	Shreya Rao	shreyarao412@gmail.com	Eagleton Hotel	Wedding	Deluxe	Saairam(18)	Vengadesh(
4	Shreya Gowda	shreyagowda@gmail.com	Palace Ground	Birthday, Retirement Party	Super Deluxe	Ganapathy(17)	Mohammed Rella(20)
5	Shreya Gowda	shreyagowda@gmail.com	Eagleton Hotel	Wedding	Deluxe	Ganapathy(17)	Vengadesh(

DOWNLOADED EXCEL REPORT

The screenshot shows an Excel spreadsheet titled "Booking_Id" with columns including Booking_Id, User_Fullname, User_Firstname, User_Lastname, User_Email, User_Address, User_Gender, EventName, DecorationName, PhotographerName, CatererName, Date, Month, Year, TotalGuests, NumberofGuests, EventMaxGuest, EventStartTime, HotelPrice, CateringPrice, TotalPrice, AverageValue, and PaymentStatus. The data consists of multiple rows of booking details.

USER

The screenshot shows the User Dashboard. On the left is a sidebar with icons for Dashboard, Hotels, Events, Caterings, Vendors, New Booking, and Booking Details. Below these are buttons for Accounts and Logout. The main area has a title "USER DASHBOARD" and a "Welcome Miss. Shreya Rao". It features a section "MINIMAL STATISTICS CARDS" with cards for Total Hotels (3), Total Events (3), Total Caterings (2), Total Vendors (9), Total Booking (0), Paid Bookings (0), UnPaid Bookings (0), Pending Bookings (0), Bookings Cancelled by Admin (0), and Bookings Cancelled by User (0).

USER->HOTEL DETAILS

USER

- Dashboard
- Hotels
- Events
- Caterings
- Vendors
- New Booking
- Booking Details

Accounts

Logout

HOTEL DETAILS

Welcome Miss. Shreya Rao

EAGLETON HOTEL
Rs **20000** /per hour

Location : Mandya

Step into the epitome of luxury and refinement at Eagleton Hotel. Nestled amidst picturesque landscapes, our hotel offers an unparalleled experience of opulence and tranquility. Indulge in lavish accommodations, exquisite dining, and personalized service that cater to your every need. From breathtaking views to world-class amenities, Eagleton Hotel is your sanctuary of sophistication and comfort.

Book

PALACE GROUND
Rs **40000** /per hour

Location : Bengaluru

Escape to Gayatri Vihar – Grand and Vruksha, where luxury meets nature's embrace. Our serene hotel offers stylish accommodations, impeccable service, and a range of amenities for a memorable stay. Experience tranquility amidst lush greenery at our retreat.

Book

VIVANTA BY TAJ
Rs **60000** /per hour

Location : Bengaluru

Discover a world of timeless elegance and contemporary luxury at Vivanta by Taj. Situated in the heart of the city, our hotel seamlessly blends modern sophistication with traditional charm. Immerse yourself in the epitome of comfort with meticulously designed rooms, gourmet dining experiences, and unparalleled hospitality. Whether you're here for business or leisure, every moment at Vivanta by Taj is crafted to exceed your expectations and create unforgettable memories.

Book

USER->EVENT DETAILS

USER

- Dashboard
- Hotels
- Events
- Caterings
- Vendors
- New Booking
- Booking Details

Accounts

Logout

EVENT DETAILS

Welcome Miss. Shreya Rao

WEDDING

Embark on a journey of love and celebration at our exquisite wedding venue. With its picturesque surroundings and elegant ambiance, it sets the perfect stage for your special day. Exchange vows amidst lush gardens or within the grandeur of our ballroom, where every detail is meticulously curated to reflect your unique style and vision. From sumptuous catering to personalized

Book

BABY SHOWER, ANNIVERSARY

Join us in celebrating new beginnings at our joyful baby shower! Then, raise a toast to enduring love at our romantic anniversary event. Cherish precious moments, laughter, and heartfelt connections with us!

Book

BIRTHDAY, RETIREMENT PARTY

Come celebrate life's milestones with us! Whether it's a joyous birthday bash or a well-deserved retirement party, our venue is the perfect setting for your special occasion. With our warm ambiance, attentive service, and customizable options, we'll ensure every detail is tailored to exceed your expectations. From festive decorations to delectable cuisine, gather your loved ones and make cherished

Book

USER->CATERING DETAILS

USER

- Dashboard
- Hotels
- Events
- Caterings
- Vendors
- New Booking
- Booking Details

Accounts

Logout

CATERING DETAILS

Welcome Miss. **Shreya Rao**

DELUXE

Rs **1000** /per person

vegetarian

Book

SUPER DELUXE

Rs **2000** /per person

vegetarian and non-vegetarian

Book

USER->VENDOR DETAILS

USER

- Dashboard
- Hotels
- Events
- Caterings
- Vendors
- New Booking
- Booking Details

Accounts

Logout

GANAPATHY

Rs **1000** /per event

Location : Madurai

Photographer

Book

SAAIRAM

Rs **1500** /per event

Location : Chennai

Photographer

Book

VENGADESH

Rs **1000** /per event

Location : Madurai

DJ

Book

USER->NEW BOOKING

USER

- Dashboard
- Hotels
- Events
- Caterings
- Vendors
- New Booking
- Booking Details

Accounts

Logout

BOOK YOUR EVENTS

Welcome Miss. **Shreya Rao**

Email address

We'll never share your email with anyone else.

Phone Number

Select Event Date

Select Event Starting Time

Select Event Type

Select Catering Type

Select Hotel

Select Number of Guests / People

Select Event Timing

Select Disc Jockey

Select Photographer

Select MakeUpArtist

Ali - Chennai - Rs.1000

Kamesh - Chennai - Rs.2500

INVOICE

Hotel Price - > 20000 X 14 = 280000

Catering Price - > 1000 X 11 = 11000

Vendor Price - > 1000 + 1000 + 1000 + 2500 = 5500

Calculate Amount

Total Amount
296500

Book your Event

USER->BOOKING (WAITING FOR ACKNOWLEDGEMENT BY ADMIN)

User Sidebar:

- Dashboard
- Hotels
- Events
- Caterings
- Vendors
- New Booking
- Booking Details
- Accounts
- Logout

Main Content:

USER BOOKING HISTORY

Welcome Miss. Shreya Rao

Pending

EAGLETON HOTEL
WEDDING
Booked Date : 22/04/2024

- Catering Name : Deluxe
- Event Date : 2024-04-24
- Event Time : 15:16
- Event Time Limit : 14 hrs
- No of Guest : 11
- Photographer : Ganapathy(17)
- DJ : Vengadesh(19)
- Makeupartist : Ali(21)
- Decorator : Kamesh(23)
- Total Cost : 296500

Cancel

USER->BOOKING DETAILS->AFTER ACKNOWLEDGEMENT

USER

- Dashboard
- Hotels
- Events
- Caterings
- Vendors
- New Booking
- Booking Details

Accounts

Logout

USER BOOKING HISTORY

Welcome Miss. **Shreya Rao**

Cancelled by you

EAGLETON HOTEL
WEDDING
Booked Date : 22/04/2024

- Catering Name : Deluxe
- Event Date : 2024-04-24
- Event Time : 15:16
- Event Time Limit : 14 hrs
- No of Guest : 11
- Photographer : Ganapathy(17)
- DJ : Vengadesh(19)
- Makeupartist : Ali(21)
- Decorator : Kamesh(23)
- Total Cost : 296500

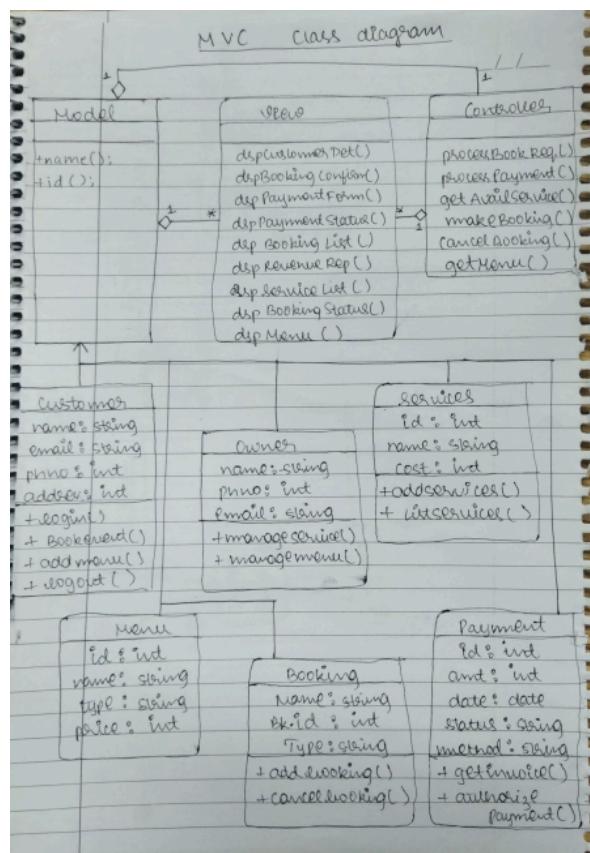
Booking Accepted

PALACE GROUND
BABY SHOWER, ANNIVERSARY
Booked Date : 22/04/2024

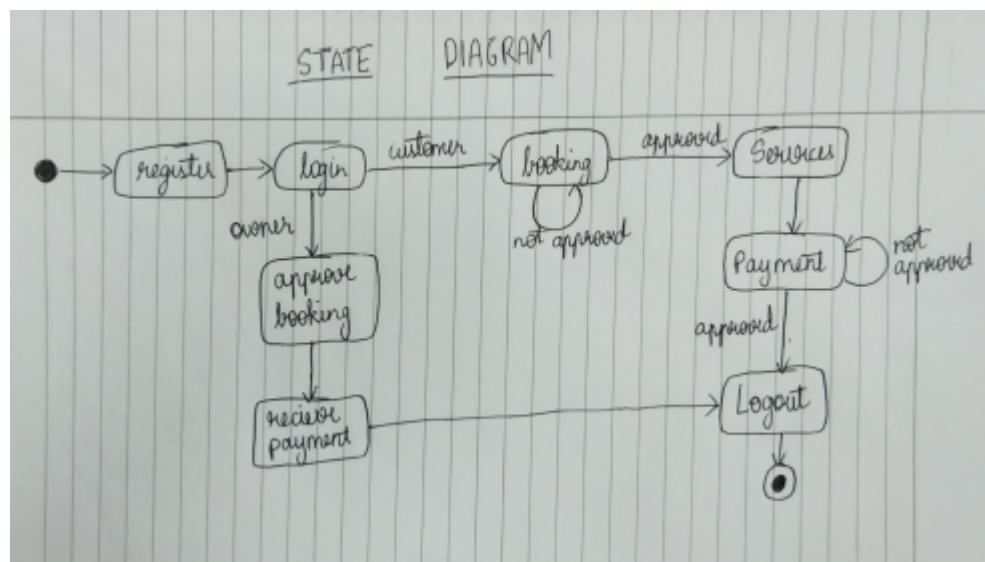
- Catering Name : Super Deluxe
- Event Date : 2024-04-28
- Event Time : 21:43
- Event Time Limit : 18 hrs
- No of Guest : 600
- Photographer : None
- DJ : None
- Makeupartist : None
- Decorator : None
- Total Cost : 1920000

Pay **Cancel**

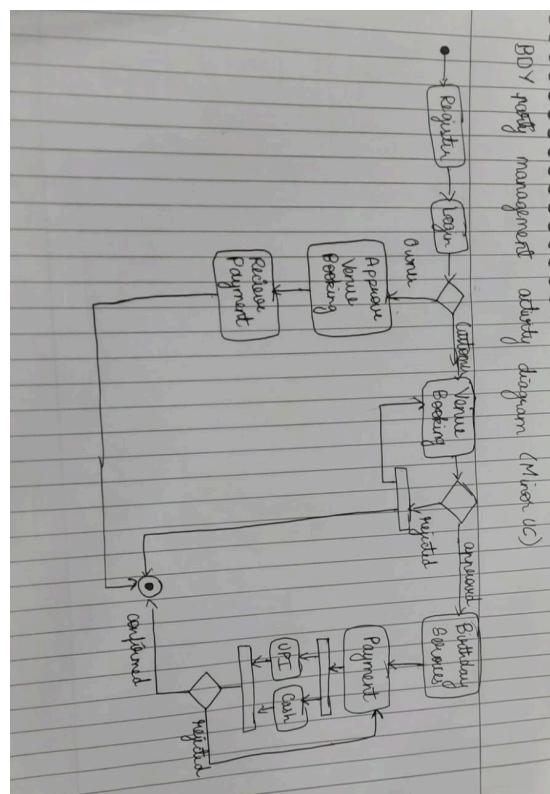
CLASS DIAGRAM



STATE DIAGRAM



ACTIVITY DIAGRAM



USE CASE DIAGRAM

