# Event Booking Portal

## Overview

The Event Booking Portal is a Java-based console application that connects with a MySQL database to manage events and bookings. It allows users to register, log in, view upcoming events, book seats for events, and track their bookings. The system is designed with modularity in mind to ensure clarity, reusability, and future scalability.

## Objectives

- To simulate a real-world event booking system in a simple console interface.

- To apply Java programming fundamentals and MySQL database integration.

- To demonstrate CRUD operations, user input handling, and modular architecture.

## Technologies Used

- Java (Core Java, JDBC for database interaction)

- MySQL (as the relational database system)

- IntelliJ IDEA (Java IDE for development)

- MySQL Workbench (for database visualization and management)

- MySQL Connector/J (JDBC driver for connecting Java to MySQL)

## Functional Modules

1. User Module

- Handles user registration and login authentication.

- Validates existing users before granting access to other features.

2. Event Module

- Allows adding new events with name, location, and date.

- Displays a list of all available events for booking.

3. Booking Module

- Enables logged-in users to book an event of their choice.

- Maintains a record of which user booked which event.

- Lets users view their own booking history.

4. Database Connection Module

- Manages the JDBC connection to the MySQL database.

- Ensures safe and reusable database connectivity across modules.

## Database Design

The backend consists of a single schema (eventdb) containing three core tables:

- users: Stores user credentials (username, password).

- events: Stores event information (event name, location, date).

- bookings: Stores booking records linking users to events.

## Workflow

- Step 1: User registers or logs in via the console.

- Step 2: Logged-in user views available events or adds a new one.

- Step 3: User selects an event to book.

- Step 4: Booking details are saved in the database.

- Step 5: User can view their bookings at any time.

## Key Features

- Secure user login and session control

- Real-time viewing of available events

- Booking records linked to specific users

- Modular code structure for easy maintenance

- Console interface that guides the user step by step

## Conclusion

This Event Booking Portal is a practical Java and MySQL project that demonstrates how to design and build an interactive console-based application. It showcases database integration, modular programming, and core software engineering concepts. The system can be easily extended to include features such as GUI, admin roles, payment integration, and more.