



**Faculty of Computer Science and Information Technology
Department of Software Engineering**

**SSE4353 Component-Based Software Development
Semester 2 2019/2020**

**Proposal Group Project
Project Name: Event Management System.**

Class Group : 1

Prepared for : Dr. Novia Indriaty Admodisastro

Prepared by :

Name	Matric Number
Loo Yiyang	192458
Chai Qiang Yuan	194696
Tan Yi Min	192629
Siti Nur Syahirah Bt Mohd Ashri	193578

Table of Contents

1.0 Project Background	3
1.1 Purpose	3
1.2 Scope	3
1.3 Objective	3
2.0 Overall Description	4
2.1 Product Perspective	4
2.2 Product Function	5
2.3 User Class and Characteristics	6
2.4 Operating Environment	7
2.5 Design and Implementation Constraint	7
2.6 Assumption and Dependencies	7
3.0 External Interface Requirements	9
3.1 User's view	9
3.2 Admin's view	15
3.2 PrimeFaces UI	20
4.1 User's view	20
4.2 Admin's view	25
4.0 System Features	31
5.0 Other Non-functional Requirements	32

1.0 Project Background

This section describes the intention of the project to be developed.

1.1 Purpose

The web application solution to be developed using the Java EE Framework for this group project is Event Management System (EVT). Event management is a web platform system of project management to create and develop large scale events such as festivals, conferences, competitions, ceremonies, formal parties, concerts, conventions and more. Event management systems provide many advantages over the traditional event management methods due to their efficiency and cost. It helps to create, develop and manage events easily. The limitations of the current system are not widely used and known to users. It is because the created event only sends email to the participating audience. It also provides a basic function of the event management system for creating and searching events for one user interaction only. Meanwhile EVT provides three user interactions including students, lecturers and admin within FSKTM faculty.

1.2 Scope

The Event Management System (EVT) is a system that will manage all the events that are organized in the Faculty of Computer Science and Information Technology (FSKTM), University Putra Malaysia (UPM). It is created to target users such as students, lecturers and admin. In the system, there are two types of users involved which content different features, roles and responsibilities. The first user is for students and lecturers who have desired to view and join the events that will be organized at the faculty. Meanwhile, the next user is admin who are the staff that are responsible to manage all the events every time they are created.

1.3 Objective

- To ease the process of managing all the events that are conducted in FKSTM, UPM by admin.
- To view the events that will be conducted in FKSTM, UPM by users.
- To participate in the events that will be conducted in FKSTM, UPM by users.
- To allow users to book a ticket online for the events.

2.0 Overall Description

This section will describe the product perspective and product function to determine the requirements and functions designed for the Event Management System (EVT). The general factors such as assumptions and dependencies that will affect the system are stated to include the third-party or commercial components.

2.1 Product Perspective

Event Management System (EVT) is an application used to organize all the events registered and as a platform joined by users for booking events' ticket. The stakeholders involved are stated as below:

- 1) User (Students and lecturers of FSKTM)
- 2) System admin of Event Management System

The conceptual design of system will be stated by listing out the generic information. Event Management System (EVT) stores the following information:

- a. Event details:
 - It includes the unique event ID and name specified for the events, along with the date, time, venue, fee for joining the events and brief description of the events created to inform the users.
- b. Users description:
 - It includes the unique user ID such as email, username, password and contact number. This information may be used for storing the records of users for any emergency or the special announcement of events.
- c. Admin description:
 - It includes the unique admin ID and password to enter the system as system administrator. Admin has been granted privileges to alter system information and monitor the events management.
- d. Ticket details:

- It includes the unique ticket ID for each events' entry joined by users. This information may be used to justify the authority of users in joining the events and avoid duplicate entry by other users.

2.2 Product Function

This subsection is used to briefly describe the system use cases.

Identifier	Use Cases	Description of Use Cases
UC1.0	Register	Users shall be able to register for a new account if they are first-time users.
UC2.0	Login	Users/Admin shall be able to login to the proposed system by using specific ID and password.
UC3.0	Update Users' Profile	Users shall be able to update their profile to the latest information.
UC4.0	Join Events	Users shall be able to join events posted by the admin.
UC4.1	Book Tickets	Users shall be able to book tickets for the events that they are interested in.
UC4.2	Check Tickets	Users shall be able to check the tickets that have been booked to confirm the event's information.
UC4.3	Delete Tickets	Users shall be able to delete the tickets that have been booked if they regret joining the events.
UC5.0	Manage Events	Admin shall be able to manage events.
UC5.1	Add Events	Admin shall be able to add new events.
UC5.2	Edit Events	Admin shall be able to edit registered events' information.

UC5.3	View Participants' List	Admin shall be able to view participants' lists in certain events.
-------	----------------------------	--

Table 1: Use cases and descriptions

2.3 User Class and Characteristics

Users of the system should be able to retrieve event information with the given date, time, description and other relevant information from the system. They should be able to book the tickets for the specific events and browse the event information. The system will support two types of user privileges, users and admin. Users will have access to customer information, and the system admin will have access to both customer and event management function. The roles of each actor are stated as following table:

Actor	Roles
User (Students, Lecturers)	<ul style="list-style-type: none"> • Register account • Login account • Update profile • Join event • Book ticket for a specific event • Check ticket for a participated event • Delete ticket for a participated event
System admin	<ul style="list-style-type: none"> • Login account • Manage all the registered event • Add new event • Edit registered event • Delete registered event • View participants list

Table 2: Stakeholders involved and their roles.

2.4 Operating Environment

Operating environment for the Event Management System (EVT) is as listed below:

- It will be a client-server system.
- Operating system: Windows
- Database: MySQL
- Development platform used: Netbeans/Java
- It is a web-based application and can be accessed by all web browsers.
- The website will be connected to MySQL database to obtain users, events and tickets' information.

2.5 Design and Implementation Constraint

The internet connection is a constraint for the Event Management System (EVT). Since it is a web application system, internet connection is required to fetch data from database and create interaction between server and client.

Limited capacity size of MySQL database is another constraint for the Event Management System. When the requests from the server keep increasing and exceed limit that database can handle, the errors will be occurred and crash happened.

Budget constraint has restricted the application of third party payment gateway such as FPX, Paypal and E-wallet in Event Management System. An effective payment gateway can help the users to make payment for joining the events easily.

2.6 Assumption and Dependencies

The identified assumptions and dependencies for the Event Management System are as follow:

Assumptions:

AS-1: Event Management System can run normally across different browsers with available internet connection.

AS-2: Event Management System will integrate third-party payment gateway if the team has enough budget to apply it.

AS-3: Users have the basic English language knowledge and understand how to use the application.

AS-4: The database can support Event Management System to store specific amount of information.

Dependencies:

DE-1: The operation of the Event Management System can be integrated with third party component such as calendar and timer for the events registered.

DE-2: The use of Java EE Framework is needed to build the web application with all the built-in classes and methods.

DE-3: PrimeFaces UI framework is an added front-end framework used to build the user interface.

3.0 External Interface Requirements

3.1 User's view

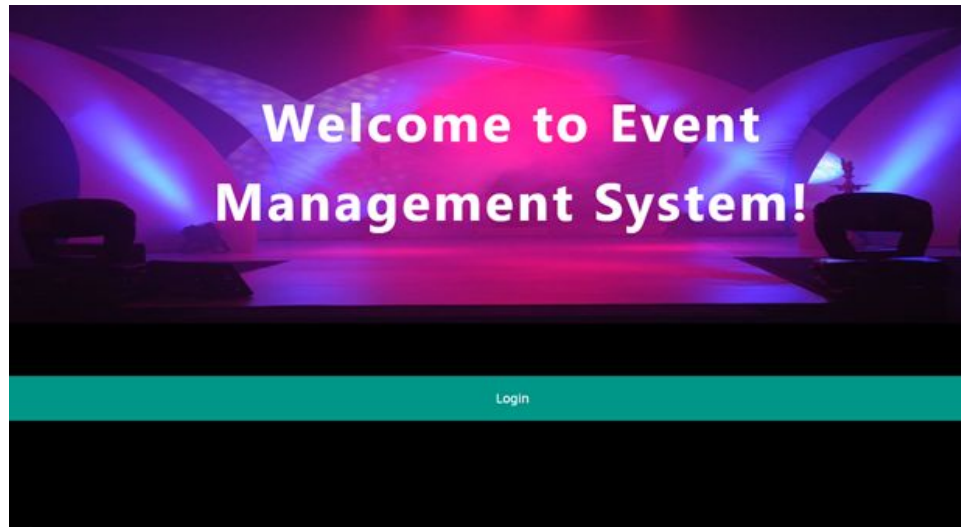


Figure 3.1.1: Welcome page

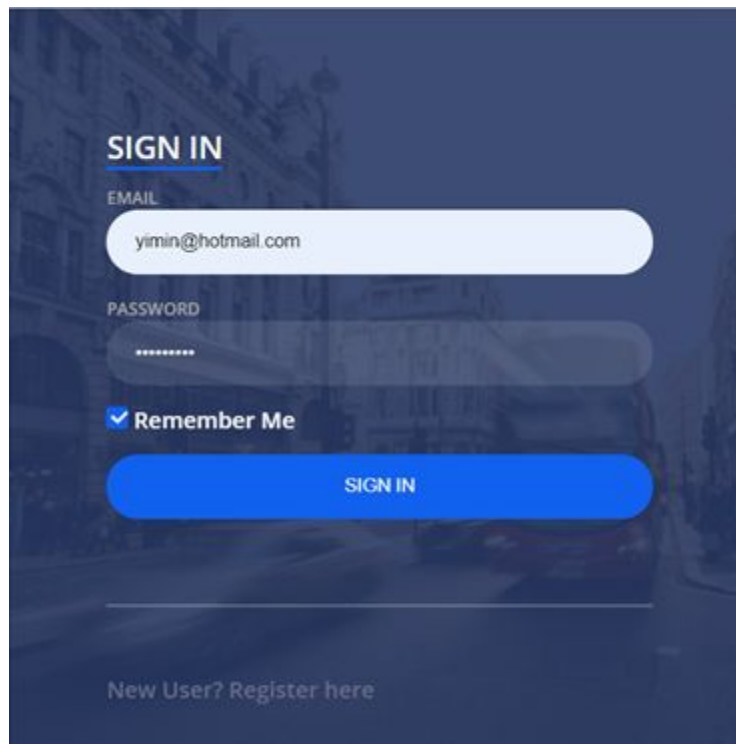
The image shows a login page with a dark blue background featuring a faint, grayscale image of a city street. The page contains the following elements: a 'SIGN IN' heading in white, underlined text; an 'EMAIL' label above a light blue rounded rectangular input field containing the text 'yimin@hotmail.com'; a 'PASSWORD' label above a light blue rounded rectangular input field with masked characters '*****'; a 'Remember Me' checkbox with a blue checkmark icon; a large blue rounded rectangular button with the text 'SIGN IN' in white; and a link at the bottom that reads 'New User? Register here' in a small, light gray font.

Figure 3.1.2: Login page

REGISTER USER

EMAIL

NAME

CONTACT NUMBER

PASSWORD

REGISTER

Already have an account? [Sign In](#)



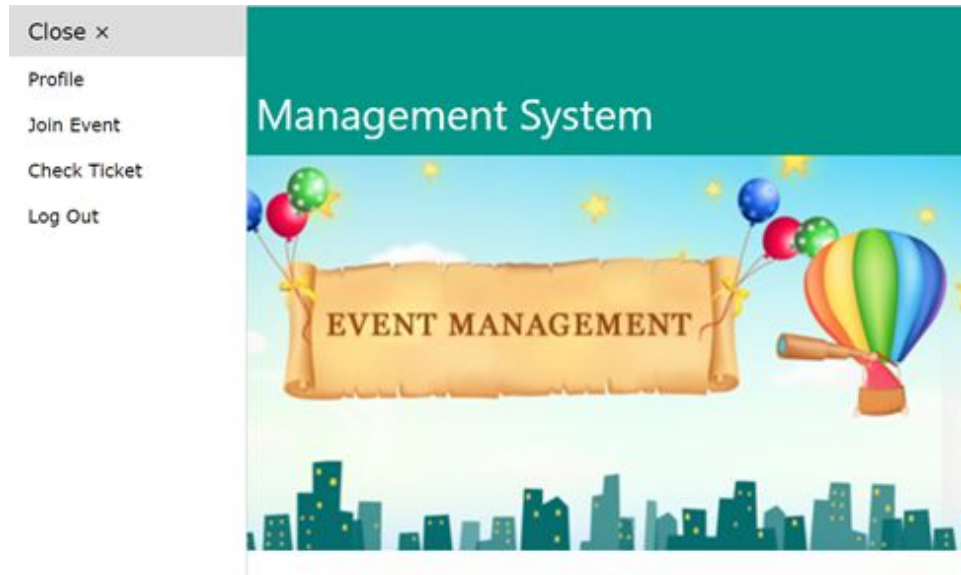


Figure 3.1.5: Side bar in user's homepage

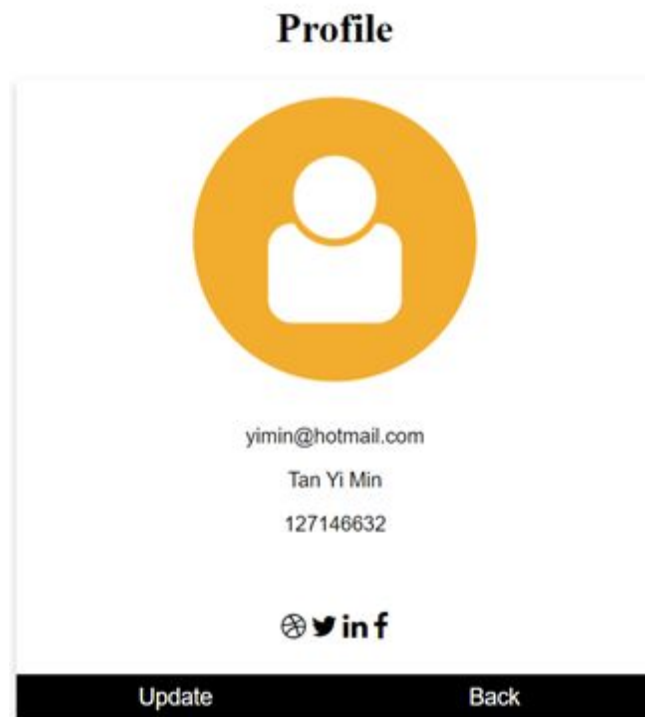


Figure 3.1.6: User's profile page

UPDATE PROFILE

EMAIL
yimin@hotmail.com


NAME
Tan Yi Min

CONTACT NUMBER
127146632

PASSWORD

UPDATE

Figure 3.1.7: User updates profile page

Join Event						
 HOME						
Event ID	Event Name	Date	Time	Venue	Fee	Action
E001	Pc Competition	20 April 2020	11.00a.m.	FSKTM Lab Software Engineering	45	Join
E002	Run Fest	10 February 2020	8.00a.m.	Bukit Ekspo	20	Join
E003	IoT Talk	6 March 2020	2.00p.m.	Dewan Kuliah Utama	10	Join
E004	Hackathon	16 December 2020	10.00a.m.	FSKTM	20	Join

Want to know more information? Join the event!

Figure 3.1.8: User joins events page

Book Ticket


HOME

Pc Competition

Event ID:E001

Date:20 April 2020

Time:11.00a.m.

Venue:FSKTM Lab Software Engineering

Fee: RM45

Description:Programming

Book Ticket

Back

Figure 3.1.9: User books ticket page

Check Ticket


HOME

Ticket ID	Event ID	Event Name	Date	Fee	Action
2	E001	Pc Competition	20 April 2020	45	Details
5	E002	Run Fest	10 February 2020	20	Details

Please make your payment within 14 days from the date you booked the ticket in FSKTM office.

Figure 3.1.10: User checks tickets page

Check Ticket



HOME

Ticket ID:2

Event ID:E001

Event Name:Pc Competition

Date:20 April 2020

Time:11.00a.m.


Venue:FSKTM Lab Software Engineering

Fee: RM45

Description:Programming

Figure 3.1.11: User check ticket's information page

Delete Ticket



HOME

Confirm: Deleting ticket for Pc Competition ?

Figure 3.1.12: User deletes ticket page

3.2 Admin's view

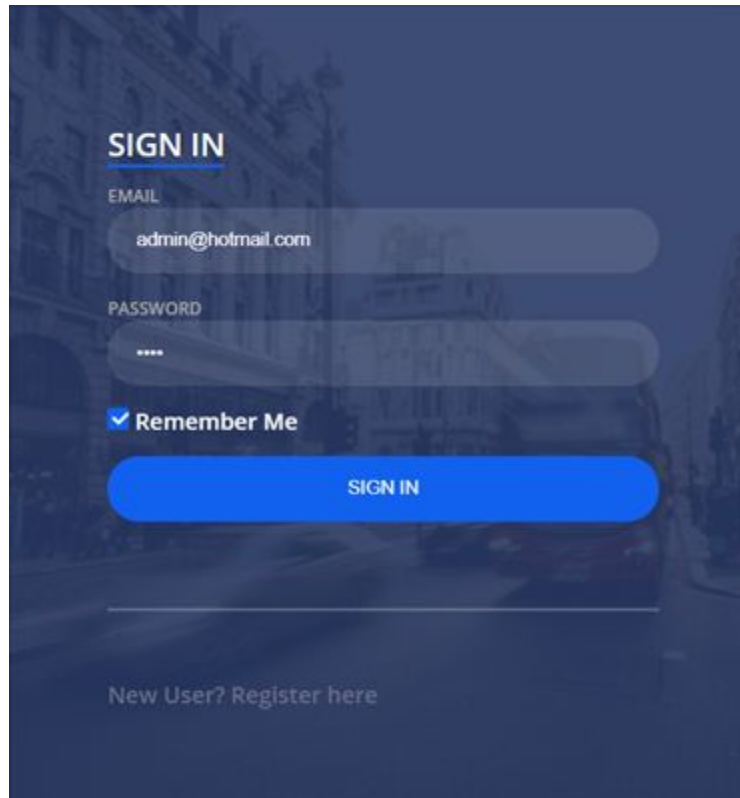


Figure 3.2.1: Login page



Figure 3.2.2: Admin's homepage

Manage Event



Event ID	Event Name	Date	Time	Venue	Fee	Description	Action
E001	Pc Competition	20 April 2020	11.00a.m.	FSKTM Lab Software Engineering	45	Programming	Edit / Delete
E002	Run Fest	10 February 2020	8.00a.m.	Bukit Ekspo	20	Run for your health	Edit / Delete
E003	IoT Talk	6 March 2020	2.00p.m.	Dewan Kuliah Utama	10	Explore more about IoT	Edit / Delete
E004	Hackathon	16 December 2020	10.00a.m.	FSKTM	20	Mobile App for ageing	Edit / Delete

Add New Event

Figure 3.2.3: Admin manages event page

Edit Event

Event ID
E001

Event Name
Pc Competition

Date
20 April 2020

Time
11.00a.m.

Venue
FSKTM Lab Software Engineering

Fee
45

Description
Programming

Save

Back

Figure 3.2.4: Admin edits event page

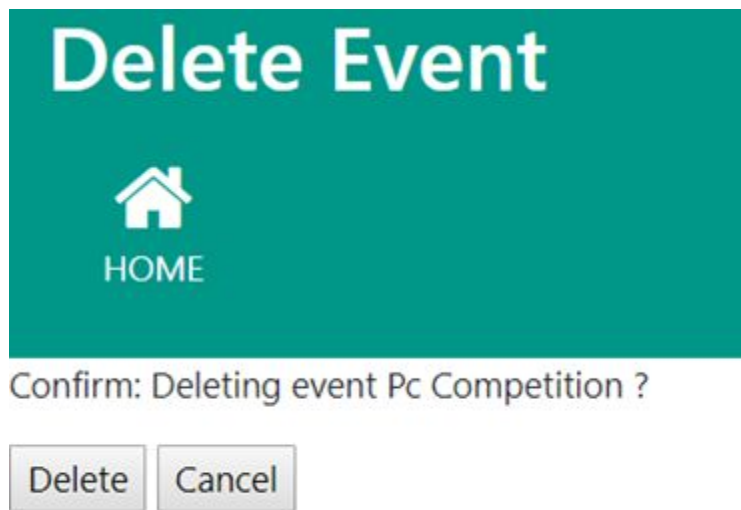
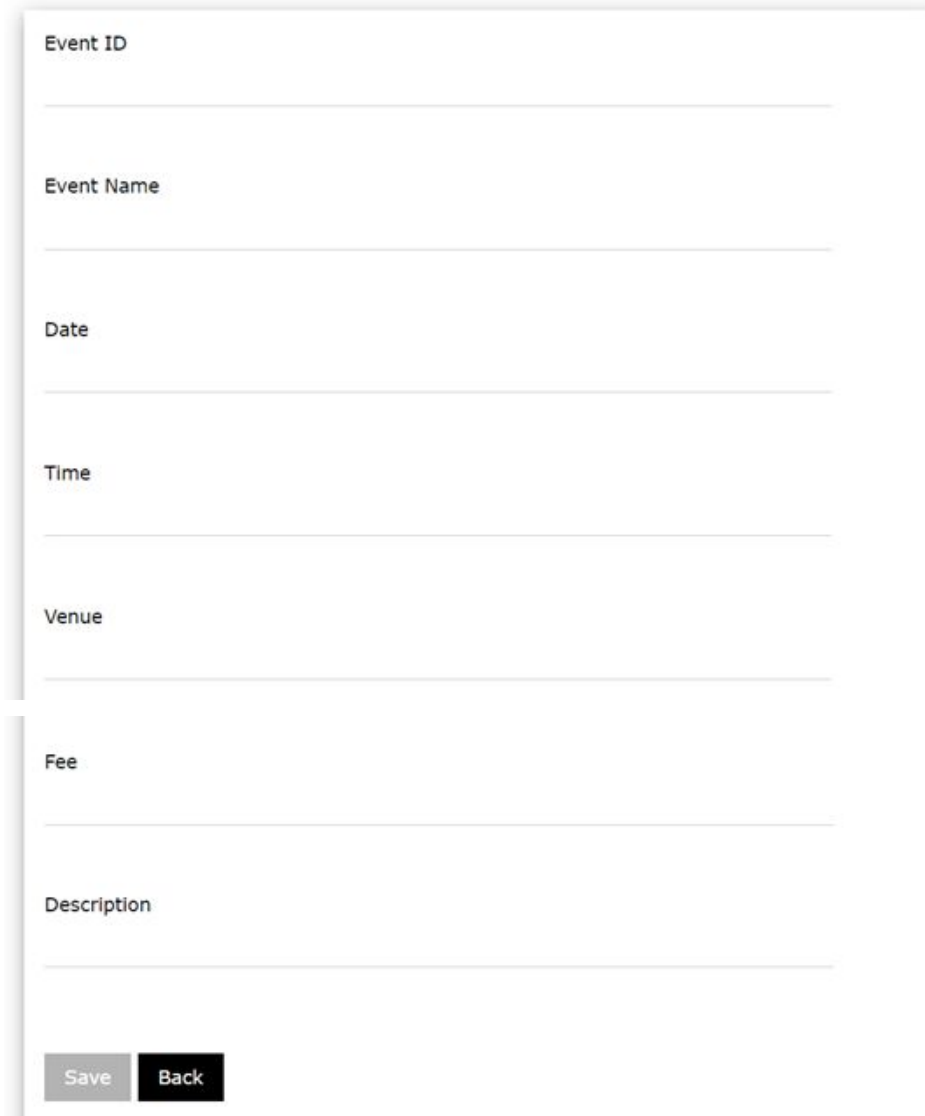


Figure 3.2.5: Admin deletes event page

Add Event



A form for adding a new event. It consists of several input fields with labels: 'Event ID', 'Event Name', 'Date', 'Time', 'Venue', 'Fee', and 'Description'. At the bottom, there are two buttons: 'Save' and 'Back'.

Event ID

Event Name

Date

Time

Venue

Fee

Description

Save Back

Figure 3.2.6: Admin add new event page

View Participants		
 HOME		
Event ID	Event Name	Action
E001	Pc Competition	Details
E002	Run Fest	Details
E003	IoT Talk	Details
E004	Hackathon	Details
<div>Back</div>		

Figure 3.2.7: Admin views participants page


Participants List		
 HOME		
Event Name	Ticket ID	Participants
Pc Competition	2	Tan Yi Min
Pc Competition	3	Chai Qiang Yuan
<div>Back</div>		

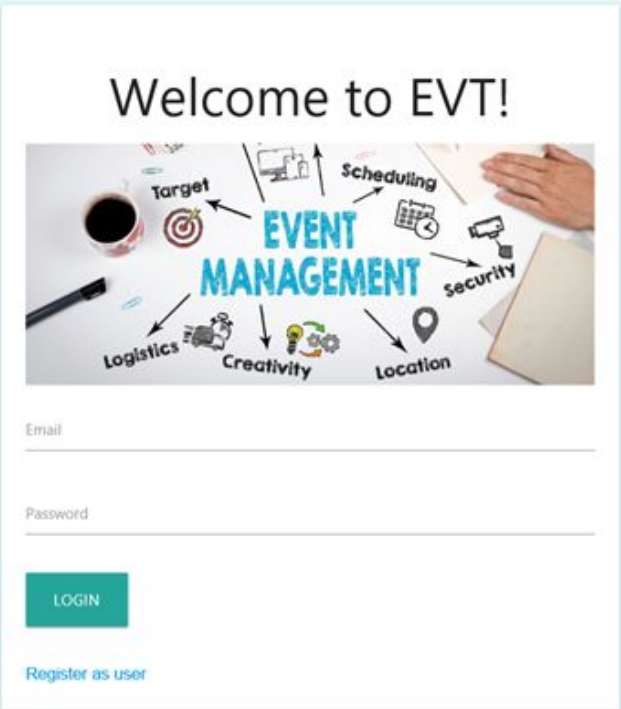
Figure 3.2.8: Participants' list page

3.2 PrimeFaces UI

4.1 User's view




Figure 4.1.1: Event Management System's Homepage



The image shows a login page with a light blue border. At the top, it says 'Welcome to EVT!'. Below this is a hand-drawn diagram similar to the one in Figure 4.1.1. Under the diagram are two input fields: 'Email' and 'Password'. Below these fields is a green 'LOGIN' button. At the bottom, there is a link that says 'Register as user'.

Figure 4.1.2: Login page

Register



The diagram shows 'EVENT MANAGEMENT' in the center, with arrows pointing to various components: Target, Scheduling, Security, Location, Creativity, and Logistics. A hand is shown writing on a notepad next to the diagram.

Email

Name

Contact Number

Password

[Login](#)

Figure 4.1.3: User's registration page

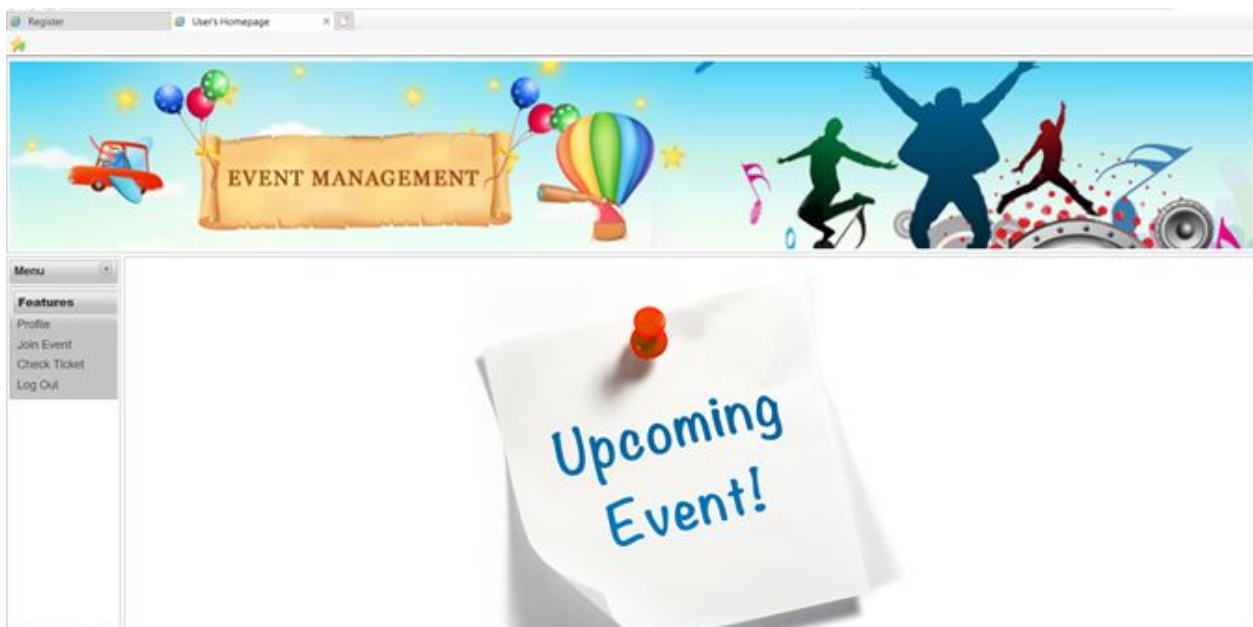
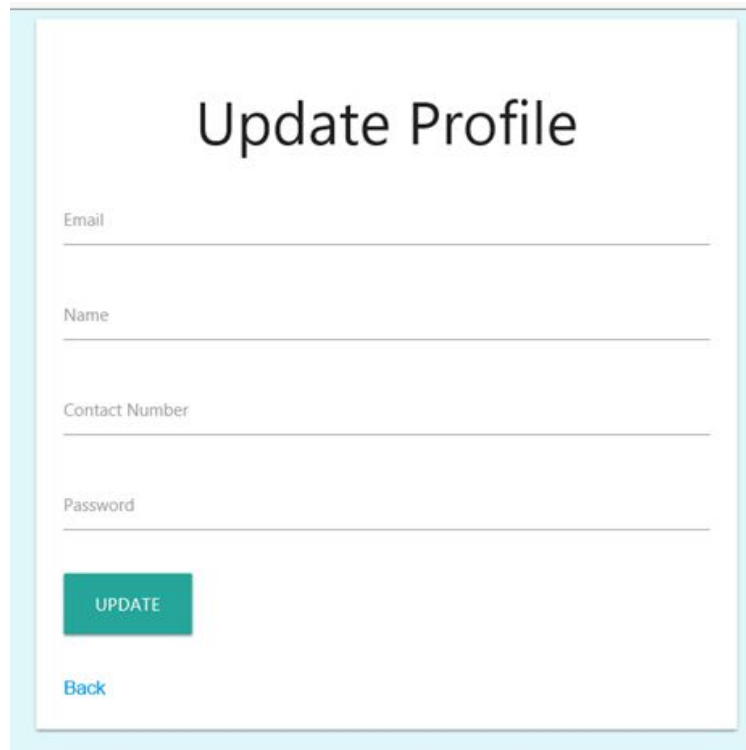
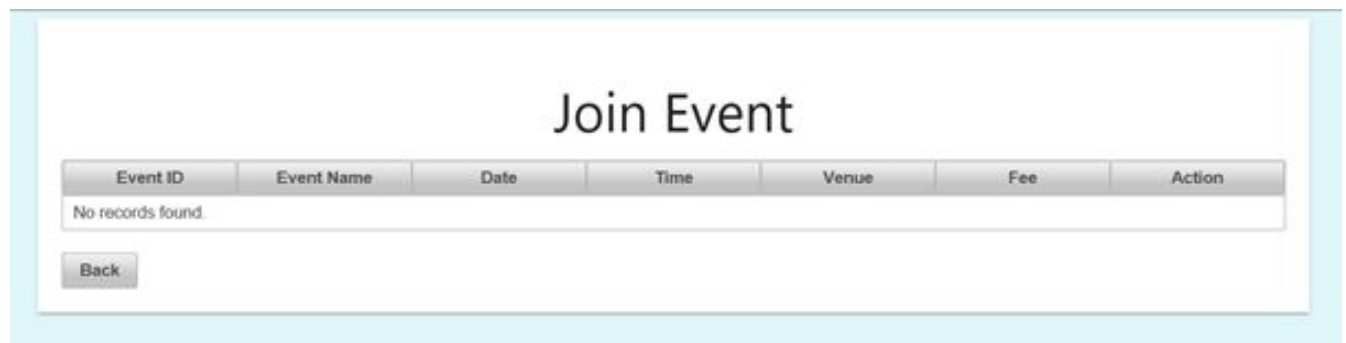


Figure 4.1.4: User's homepage



The 'Update Profile' form is a vertical layout with a light blue border. It features four text input fields labeled 'Email', 'Name', 'Contact Number', and 'Password' from top to bottom. Below the 'Password' field is a teal 'UPDATE' button. At the bottom left of the form is a blue 'Back' link.

Figure 4.1.5: User's profile



The 'Join Event' page has a light blue border and a central title. Below the title is a table with seven columns: 'Event ID', 'Event Name', 'Date', 'Time', 'Venue', 'Fee', and 'Action'. The table body contains a single row with the text 'No records found.' Below the table is a grey 'Back' button.

Event ID	Event Name	Date	Time	Venue	Fee	Action
No records found.						

Figure 4.1.6: User join Event page

Event Detail

Event ID: E001

Event Name: PC Competition

Date: 20 May 2020

Time: 10.00a.m.

Venue: FSKTM Lab

Fee: RM45

Description: Programming

[Book Ticket](#) [Back](#)

Figure 4.1.7: User book ticket page

Check Ticket

Ticket ID	Event ID	Event Name	Date	Fee	Action
No records found.					

[Back](#)

Figure 4.1.8: User check ticket page

Ticket Detail

Ticket ID: 1

Event ID: E001

Event Name: PC Competition

Date: 20 May 2020

Time: 10.00a.m.


Venue: FSKTM Lab

Fee: RM45

Description: Programming

Figure 4.1.9: Ticket detail page

4.2 Admin's view



Email

Password

SIGN IN

Figure 4.2.1: Login page

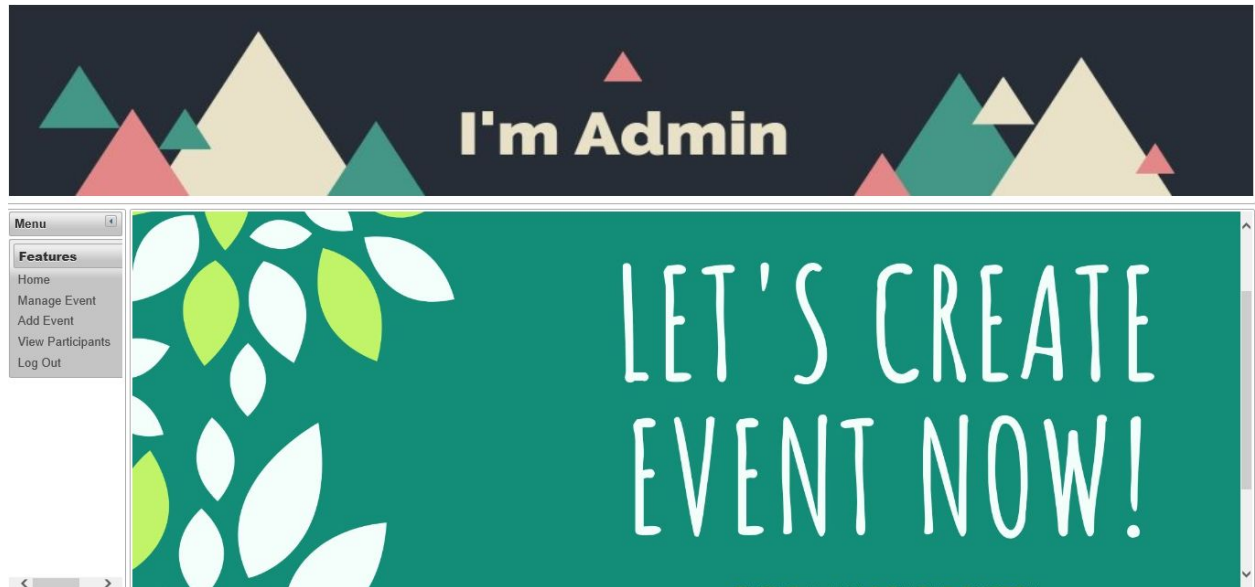


Figure 4.2.2: Admin's homepage

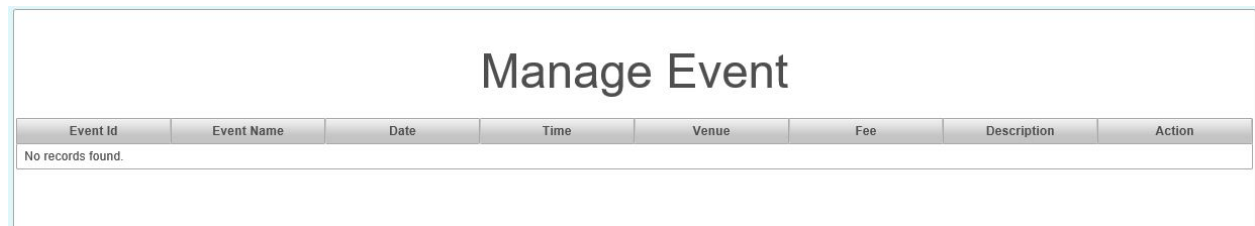


Figure 4.2.3: Admin manages event page

Edit Event

Event ID

Event Name

Date

Time

Venue

Fee

Description

SAVE

BACK

Figure 4.2.4: Admin edits event page

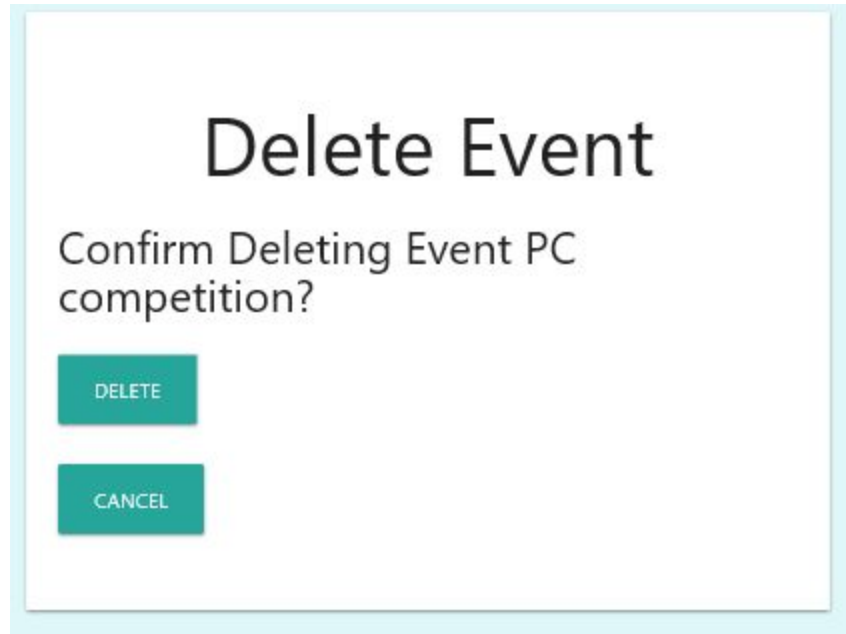


Figure 4.2.5: Admin deletes event page

Add Event

Event ID

Event Name

Date

Time

Venue

Fee

Description

SAVE

BACK

Figure 4.2.6: Admin add new event page

View Participants		
Event Id	Event Name	Action
No records found.		

Figure 4.2.7: Admin views participants page

Participants List		
Event Name	Ticket Id	Participants
No records found.		

Figure 4.2.8: Participants' list page

4.0 System Features

4.1 Use Case Diagram

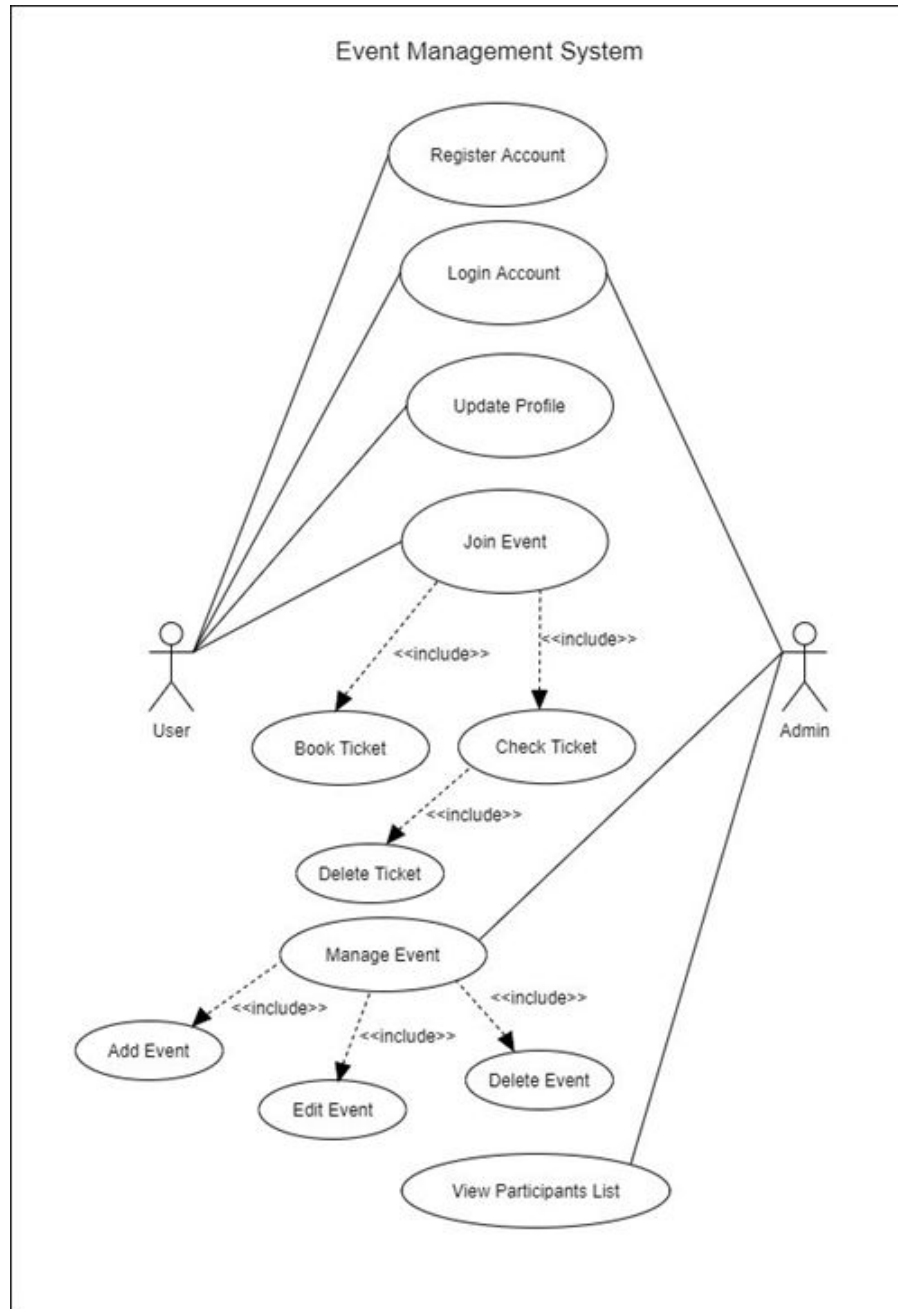


Figure 4.1: Use Case diagram for Event Management System.

4.2 ER Diagram

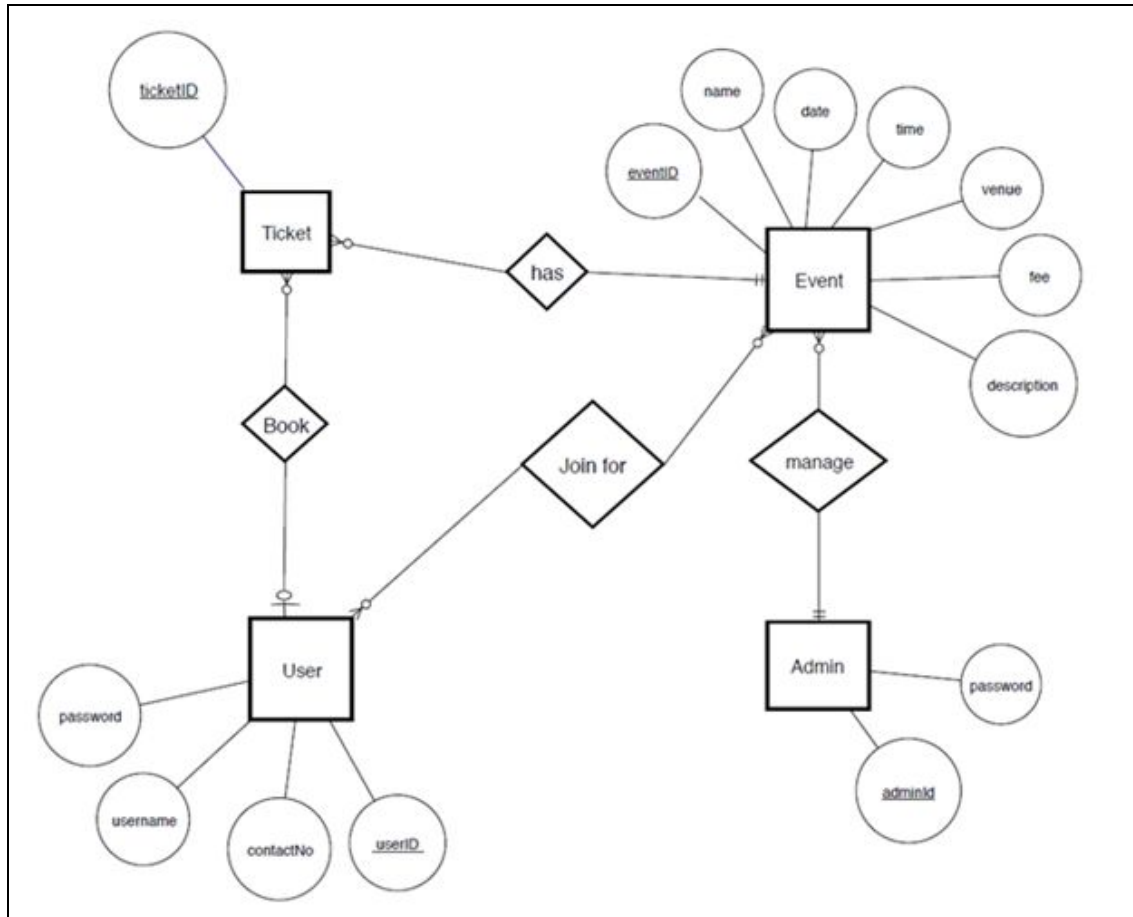


Figure 4.2: ER diagram for Event Management System.

There are 4 entities which are user, admin, ticket and event. User entity has attributes userID as primary key, password, name and contactNo.

Admin entity has adminID as the primary key and password. Event entity has eventID as primary key, name, date, time, venue, fee and description. Ticket entity has ticketID as primary key.

Since users can book many tickets, userID will become foreign key in the ticket entity. Event can have many tickets and eventID will also become foreign key in the ticket entity. Admin can manage many events, so adminID becomes foreign key in the event entity.

5.0 Other Non-functional Requirements

This section will define the quality attributes designed for the Event Management System (EVT).

NFR01 - Performance Requirements

Event Management System is expected to have reasonably short response time. Users such as students and lecturers shall be able to access from page to page within 3 seconds. The system is expected to serve a maximum number of 500 users at one time and able to operate when users choose to join specific events simultaneously.

NFR02 - Security Requirements

Event Management System shall be able to authenticate the students' and lecturers' identity as a user to access the system by verifying their unique user ID and password. All the passwords registered by users must store as encrypted form in database to maintain confidentiality of personal information.

NFR03 - Availability

Event Management System shall be available for 24 hours except for the maintenance time. Users such as students and lecturers can login at any time to access the events' information and join the events. The system's downtime must not more than 2 hours to avoid loss of users' confidence.

NFR04 - Usability

A new user shall be able to register account, search events and join events in less than 10 minutes without user manual needed. Users shall be able to easy get recall on where to search events, join events and check tickets on their subsequent visit without spending too much time.

NFR05 - Extensibility

Event Management System shall be able to extend their features by integrating third party components to improve the functionality. For instance, adding calendar and timer components into system to set reminder for the events registered.

NFR06 - Recoverability

Event Management System shall be able to restore the system by using protected backup files.

Archiving and backing up the data regularly or when unexpected event occurred.