Group Project Documentation
Advanced Cross-Platform Application Programming with .NET

Event Management System

Prepared by Group 9

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Revision History

Name	Date	Reason For Changes	Version
Nguyen Tuan Khai	*01 February 2022*	*Initial draft*	*0.1*
Nguyen Ha Thien	*13 February 2022*	*Update Database*	*0.2*
Nguyen Ha Thien	*27 February 2022*	*Adding Mockups*	*0.3*
Nguyen Tuan Khai	*14 March 2022*	*Adding Screens*	*0.4*
Nguyen Ha Thien	*18 March 2022*	*Final Document*	*1.0*

1. Project Introduction

1.1 Product Perspective

This event management system will allow users and organizers to access and manage all aspects of an event, including registration, (marketing, engagement, integrations,) physical planning and preparation, reporting and analytics, and more.

Product Features

The product allows user:

- *Update database with new events and clients.*

- *Create query and get all information about events and clients.*

- *Manage user system.*

- *Keep track of a user`s history events.*

- *Deduct cancelled event.*

1.2 User Classes and Characteristics

There are 3 user classes in developing system: Admin, Host and Guest.

Admin is main class in our system because it can access to needed details about events, clients, and histories. For example, admin can get to know what client take what event, and

what client host what event, what client be in what group, what client post what event. Moreover, admin can edit, delete, and create events in the system with appropriate message sent to clients. Admin can add, update, or remove role host (member type 2) for users in the system. Admin can add, update, or remove group for users in the system.

Member type 1 (Guest) can get access to partial information about events and histories. For example, guest can get to know the profile, invitation, ticket/event histories, group and role. Guest can edit its own profile, response to invitation, remove or request to be in specific group, remove or request to be upgraded to host role (member type 2), post comment in the Event Post section.

Member type 2 (Host) can get access to partial information and higher privilege about events, histories, analytics, and managements. For example, host can get to know the profile, invitation list and invitation response, ticket/event histories, attendance, attendance group and role. Host can edit its own profile, create events, and manage allowed event group, create invitations, and track responses, manage attendance through tickets, modify events information and post comment in the Event Post section.

Member type 1 account (default role) can be created through registration or added by admin or host. Member type 2 account can be achieved through upgrade review from member type 1 or being added by admin. Admin cannot be created or added through any endpoints of the system, admin is integrated in the database or can only be modified by the system admin of the database.

2. Database Design
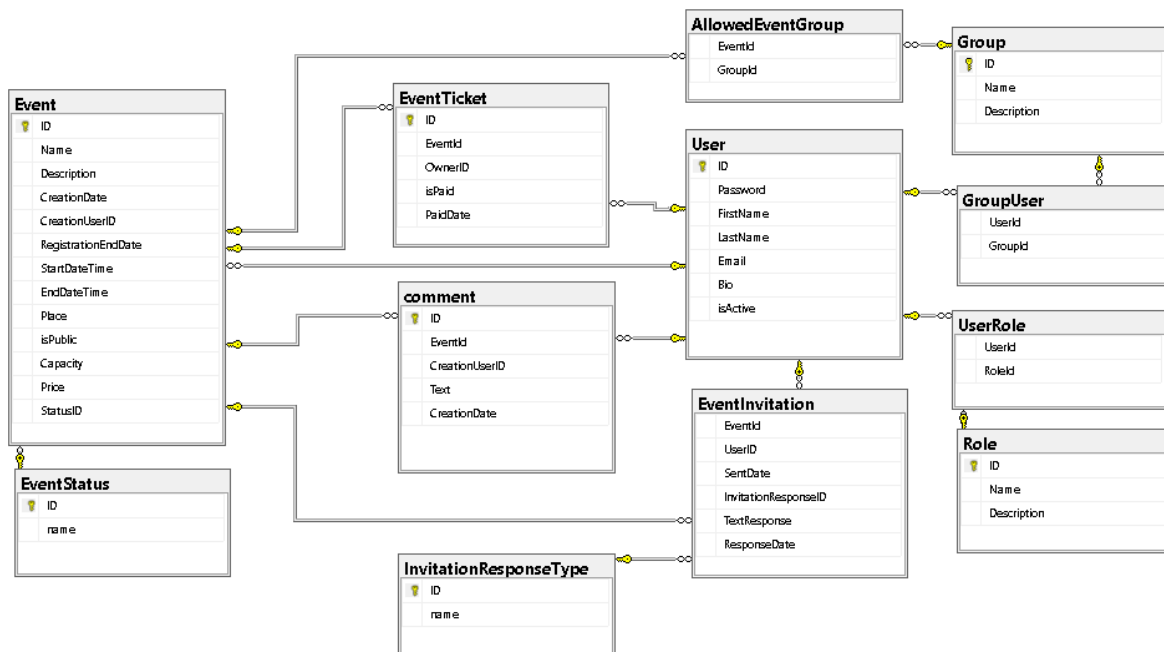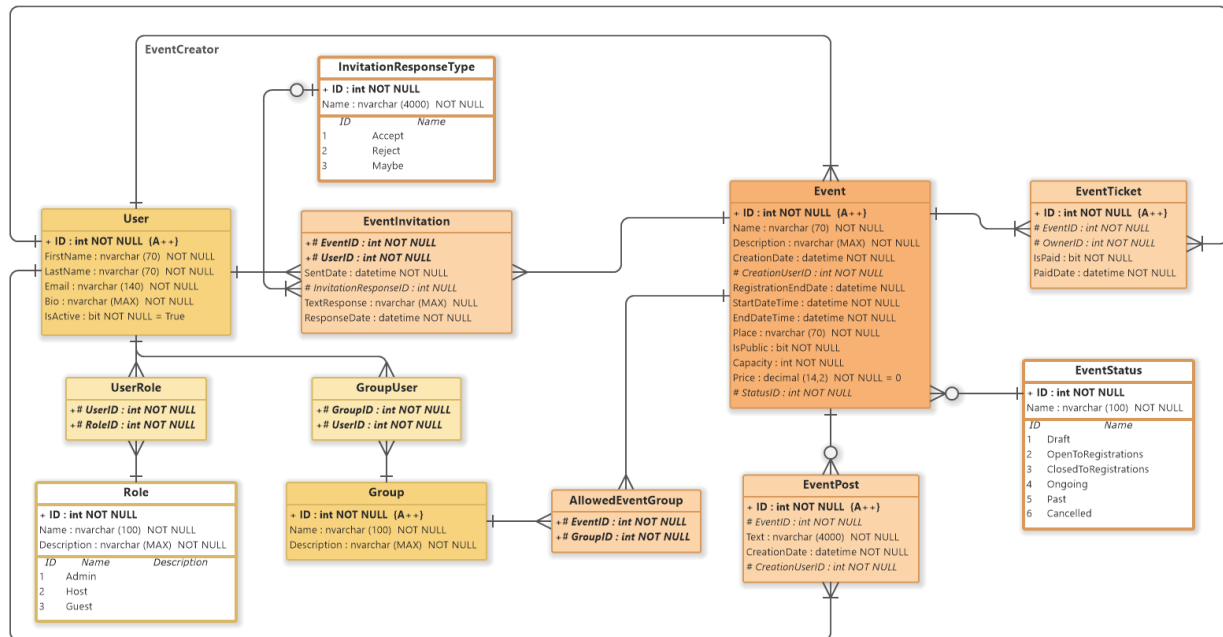
Database Schema

3. System Architecture

DB hosting: Somee.com
Website hosting: IIS Server Somee.com

The system will operate in a server with IIS Application pool ASP.Net Core version, MS SQL 2022 Express version with 100mb of space storage and 30mb database storage. The users can access the application anywhere on the Internet, best performance in US and EU where datacenter of the company located.

The application will be designed with the priority from admin to member type 2 and member type 1 respectively. There will be a model's layer to help communicate with database, services layer to help validations and contain logical business functions and a views/razor pages layer where authenticated and authorized users can access to perform actions of the system.

The following technologies/services can be implemented to help the app more useable: firebase authentication, JWT authentication & authorization.
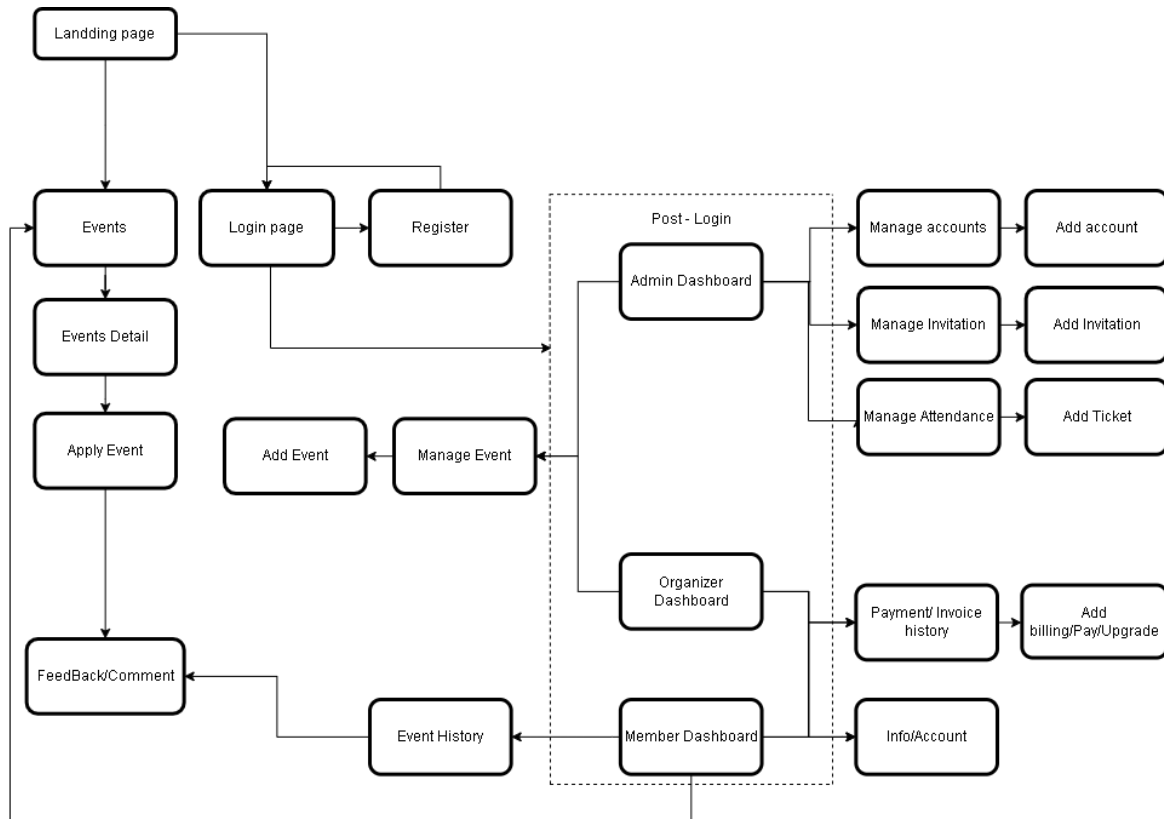
4. Implementation

4.1. Deployment Considerations

The deployment can be done through building a portable version of the app and host it in IIS Application pool server ASP.NET Core or using Docker image container to host it with the versions specified in JSON files.
User can access anywhere around the world, but the time is consistent to only 1 time zone, further parallel time zone for events can be developed in the future. With Docker image, the app is fully scalable in the future. Considering Soome.com hosting, data storage can be upgraded to fulfill the need of uses for the system.
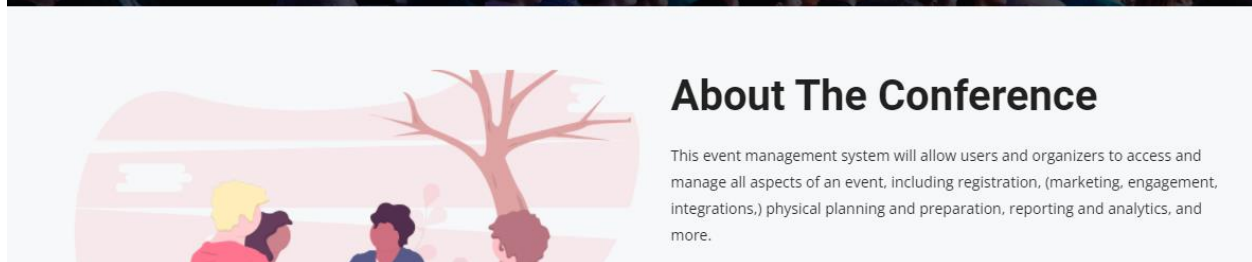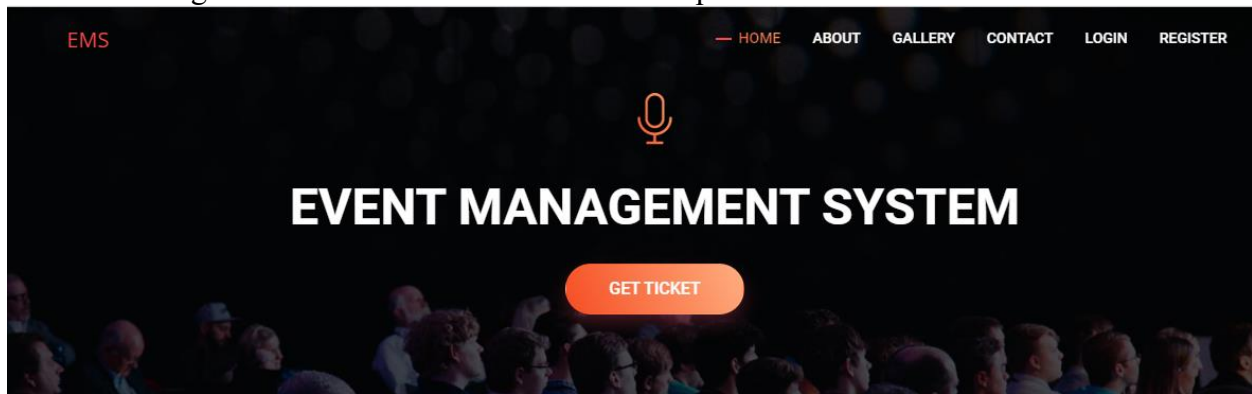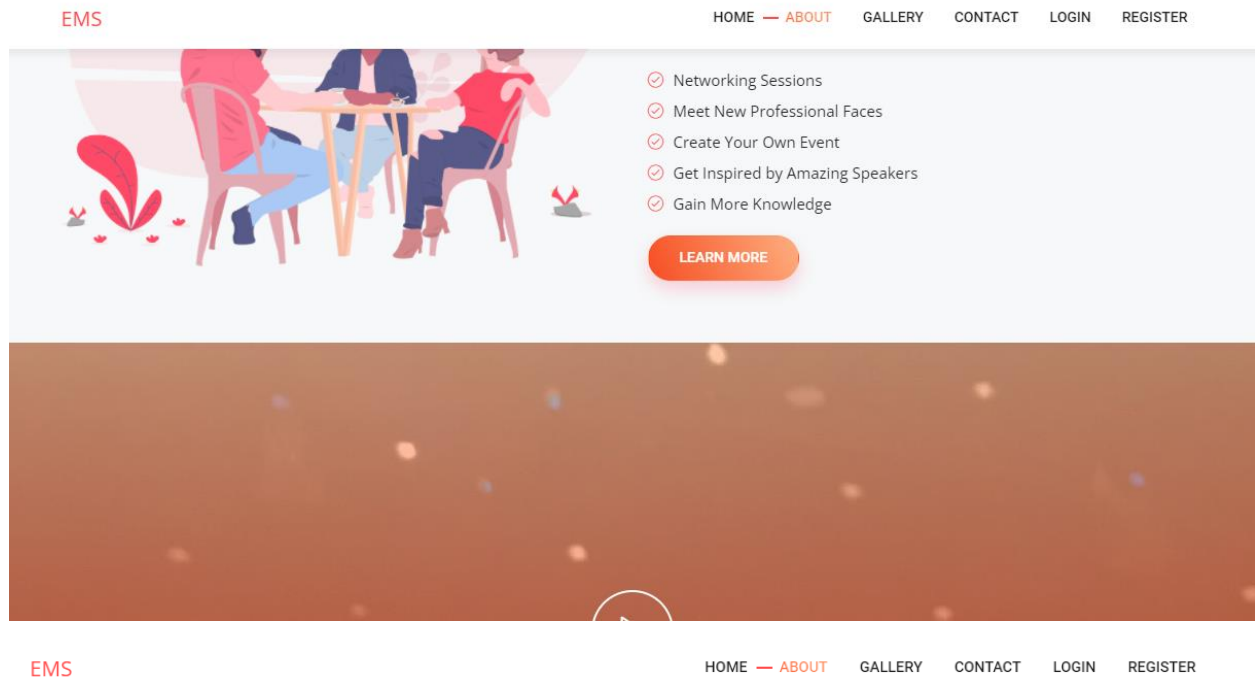
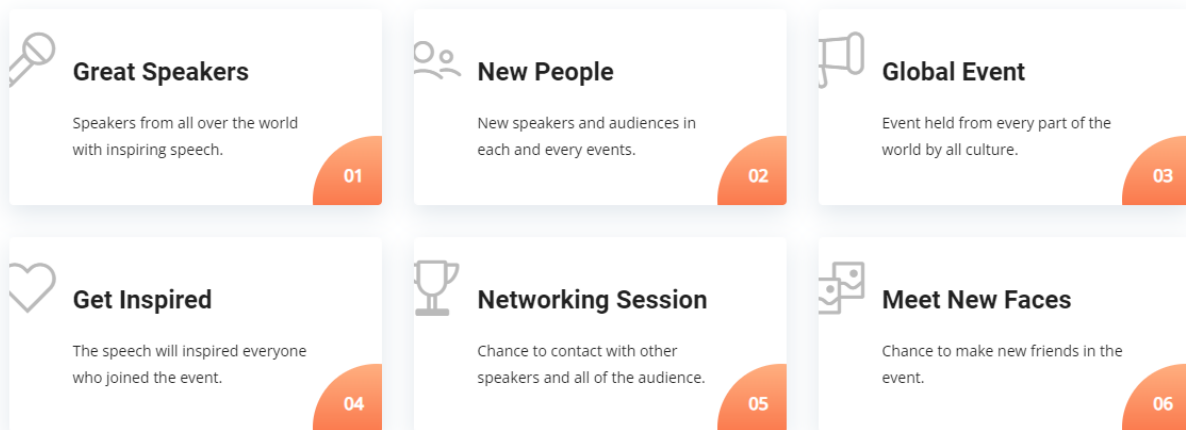## 4.2. Screenshots and explanations

Screen Flow

a. *Home Page*
- Allow guest and members to view the event's portfolio.

EMS

⊘ Networking Sessions
⊘ Meet New Professional Faces
⊘ Create Your Own Event
⊘ Get Inspired by Amazing Speakers
⊘ Gain More Knowledge

LEARN MORE

EMS

[Why You Should Join?]

Great Speakers

Speakers from all over the world with inspiring speech.

01

New People

New speakers and audiences in each and every events.

02

Global Event

Event held from every part of the world by all culture.

03

Get Inspired

The speech will inspired everyone who joined the event.

04

Networking Session

Chance to contact with other speakers and all of the audience.

05

Meet New Faces

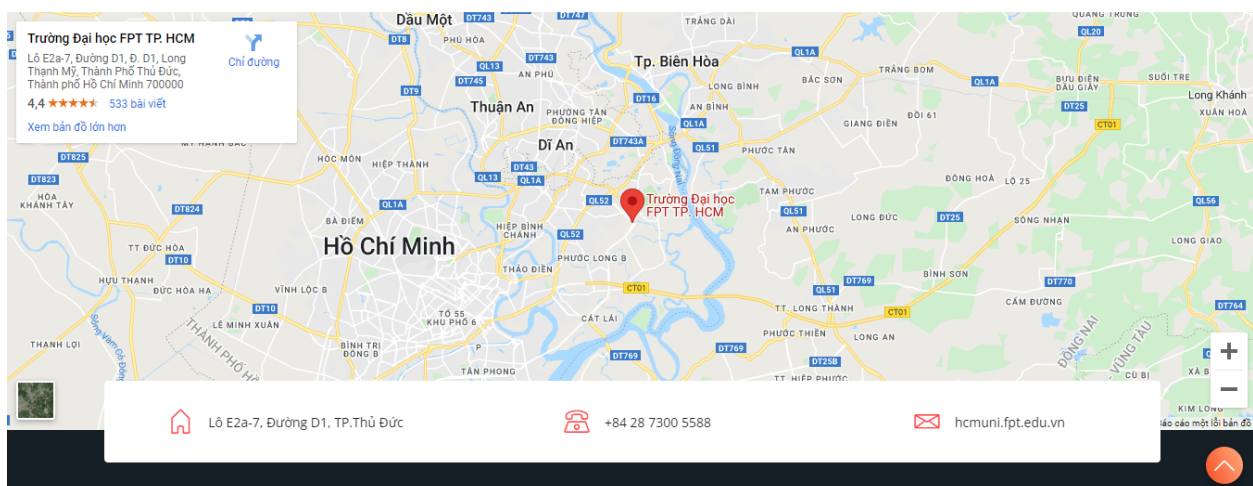Chance to make new friends in the event.

06

- Guest and member can view top 4 upcoming events which is for public. And when "more event" button was pressed, it will redirect users to the events page.
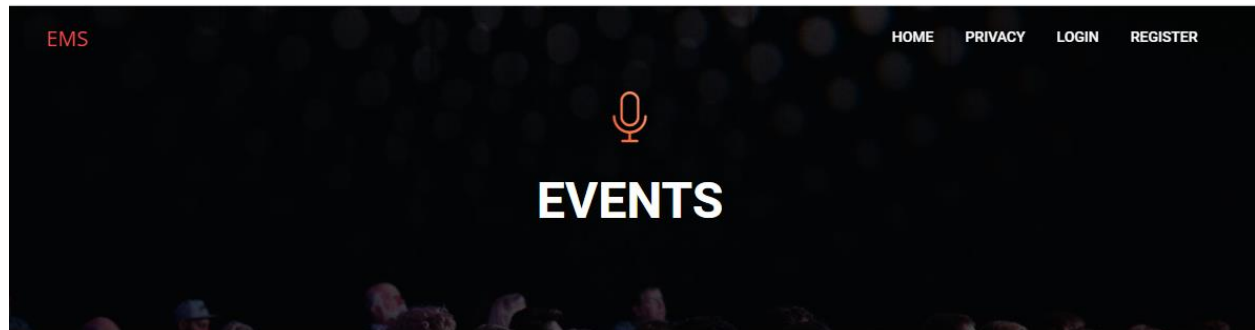
b. *Events Page for Guests and Members*
- Guests and Members will see all the upcoming events. And when users pressed detail, they can see the detail of the event
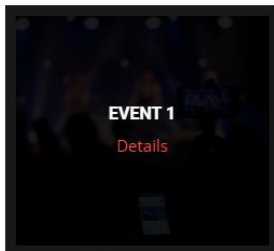
EMS

HOME   PRIVACY   LOGIN   REGISTER

EVENTS

[Upcoming Events]

All of the upcomming event!

EMS

HOME   PRIVACY   LOGIN   REGISTER

EVENT 1

Details

c. *Login and Register Page*
- Members, Admins and Hosts can log in in the Login Page and if the user as a guest didn't have an account, they can register in the Register Page.
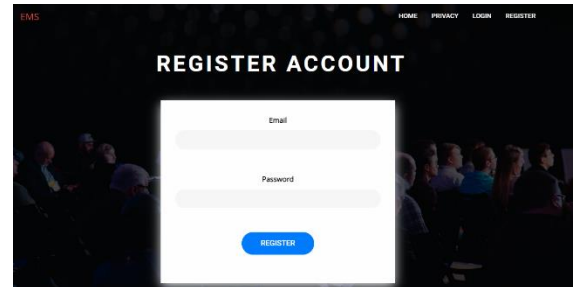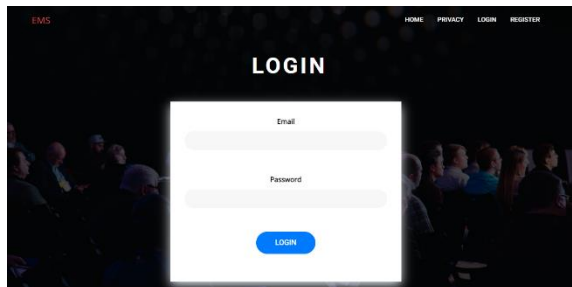
d. *Admins Login*
- If the user is Admin, it will redirect to the User Page. In this page, Admin is allowed to Search, Edit, View, and Delete users.

EMS

Home Privacy **Admin Management ▾** Logout

Index

Search by name: [_____] [Search] | [Create New]

Password	FirstName	LastName	Email	Bio	IsActive			
1	Nguyen	James	User1	This is User 1	☑	Edit	Details	Delete
1	1	1	1	1	☑	Edit	Details	Delete
2	2	2	2	2	☐	Edit	Details	Delete
2	3	3	3	3	☐	Edit	Details	Delete
2	4	4	4	4	☐	Edit	Details	Delete

[Previous] [Next]

Edit
User

Password
[1]

FirstName
[Nguyen]

LastName
[James]

Email
[User1]

Bio
[This is User 1]

☑ IsActive

[Save]

EMS

Details
User

Password	1
FirstName	Nguyen
LastName	James
Email	User1
Bio	This is User 1
IsActive	☑

[Edit] Back to List

Delete

Are you sure you want to delete this?
User

Password	1
FirstName	Nguyen
LastName	James
Email	User1
Bio	This is User 1
IsActive	☑

[Delete] | Back to List

Home Privacy **Admin Management ▾** Logout

User
User Role
Role
Invitation Response Type

Group
Group User

Event
Event Invitation
Event Ticket
Event Status

Comment
Allowed Event Group

- Aside from the user management page, Admin is also allowed to manage all these function pages. All the pages can be searched, edited, viewed, and deletes same as the User Page.

e. *Hosts Login*
- If the user is Host, it will redirect to the Group Page. In this page, Host is allowed to Edit, View, and Delete groups.

- Aside from the Group management page, Host is also allowed to manage all these function pages. All the pages can be searched, edited, viewed, and deletes same as the Group Page. All the features are limited to Admin and Host is not allowed to access.

f. *Event Invitation Page*

g. Event Ticket Page

Search by description: [   ] [Search] | [Create New]

IsPaid	PaidDate	Event	Owner

[Previous] [Next]

h. Comment Page

Search by text: [   ] [Search] | [Create New]

Text	CreationDate	CreationUser	Event

[Previous] [Next]

i. Allowed Event Group

Search by description: [   ] [Search] | [Create New]

Event	Group

[Previous] [Next]

j. Members Login
- If the user is Member, it will redirect to the home page same as Guests.