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GSU Event Portal

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ABSRTACT

GSU Event is an event organizing portal, and it provides the events of all types that are organized by the event organizers and create your own Events of all kinds in any place in the United States and sell out the ticket with certain prices.

The event portal is an easy way of searching events happening in all over the major cities across United States. The site provides information regarding the event, where it is happening, when it is happening and what is the entry for the event whether it is free or paid to the event goer. For the event organizer, it's very easy to reach out to the millions of people around the world, easy, economical and efficient way to market the event, it gives event organizer to inform necessary information while booking to the event, organizer can change the price of entry based on the seating levels or different categories, if it is a free event it helps organizer to check the turn-out ratio and monitor who attended the event vs registered members.

Another user of this application is administrator who monitors all the activity from the event organizer and event goer. Administrator has right to resolve issues between the organizer and event goer and policies for the type of events posted on the site.

This portal is mobile-friendly, with easy-to-navigate interfaces and workflow to enable organizers to manage events, and help visitors discover events using the search by Either Event name, locations or Both and buy tickets with ease. The Portal responsive front-end Page is created by using HTML5, CSS, Bootstrap, JavaScript's, jQuery and for the Back--End we are using C# Programming and Centralized database.

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1. Feature Description

GSU Event Portal is a web platform for event registration that provides organizers with tools to create, promote, manage and sell out events of all types and sizes. This project involves the functional activities which are monitored by administrator and user/organizer. Here admin module controls rest of the modules and respected functions.

Modules:

Admin

Administrator have full access to the portal. He can approve / edit / manage new and current events. Admin has user credentials to enter into the system. He can able to see and manage the participant for the event, if the organizer submits the request to conduct an event administrator must approve the event then only it will be accessible to the visitors/event goers. Admin can read all the feedback given by visitors about events.

User

Users are event visitors and event creators. User must sign up for event creation, in some cases if the event is free users can directly. User can check event details times and can contact event organizer easily by using the search function. Participants can register online and able to get confirmation about event timing, place or any updates. User can give the feedback about the Event they attended. User can search the events by location, date, event type, free or paid.

Organizer

Organizer also has credentials to login to portal. He maintains the event details submits the requests to change event date, time even the price of tickets. He is responsible for all needs of an Event.

1.1 Competitive Information

The idea of this application raised roots from leading online event portals such as “EVENT BRITE”, “EVENTBEE” which manages, organizes events all over the USA.

1.2 Relationship to Other Applications

GSU event portal is similar to other professional event management websites like “event brite”, event bee, “debi lilly”- a perfect event. These websites are huge success, very user friendly to create event and manage events at any location. We took these website as a reference to develop GSU Event portal.

1.3 Future Enhancements

In future enhancements we would like to add features like signing up with google/ Facebook accounts. Easy management of event cancellation and effective management of waitlist visitors. By collaborating with different venues, we can also provide the short videos on venue facilities, transportation, location map and assistance numbers to the event goers.

1.4 Definitions and Acronyms

HTML	Hyper Text Markup Language
ASP.Net	Active Server Pages
UML	Unified Modeling Language
SQL	Sequential Query Language

1.5 Assumptions and Dependencies

The payment gateway not fully operational, there is only confirmation email sent to the registered user. The web portal requires modern web browsers latest versions of Mozilla, Google Chrome, Microsoft Edge etc.

2.0 Project Technical Description

GSU event portal is an interactive web application. This web application effectively reduces the communication gap between the event organizer and the participants as they can interact on a common platform to exchange the information about the events.

User / visitor can search for different events in an given location or by event type like food, music etc. User can register for the event of their interest by logging into GSU event portal. The scope of this project is currently the university events. An organizer can create an event with ease, can able to add theme and select type of event and price for the participation. Organizer can also edit/ update the event details pricing after administrator approval. This portal is designed to be accessed

without any hassles across multiple platforms including mobile devices.

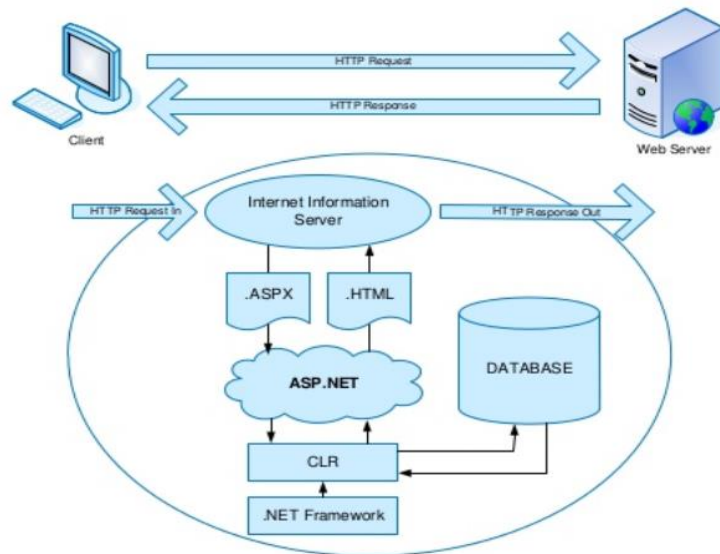


Fig 2.0 Website architecture

Event organizer can keep the participants records and analyze the data to improve the planning of future events. For developing this website, we used C# language along with visual studio, HTML, Java Script, CSS for front end development. We used bootstrap framework to increase the user experience in different platforms. For backend data storage we used SQL server.

2.1 Application Information Flows and Architecture

User Registration: Registered users can open the web application and on the top right side registration is available click on it, then provide few details of user. Data will be stored in database. As soon as user registration is completed, user can login into their new user account. If user requests for the password, user email address is crosschecked with database and link to password reset will be sent to the registered email id.

Organizer: Registered users can create events from the top menu and a notification will be sent to user for the registered events.

Administrator: Admin can control all events in the portal i.e. able to manage if necessary remove the events created by any other. So registered users cannot delete any other events except events created by themselves.

2.2 Project Scope and Capabilities

GSU event portal is designed to create/ manage events in the Governors State University and nearby localities. This reduces the time in finding the right event and peacefully book and plan for the event arrival. This also useful for the event organizers where they can reach out to the interested audiences effectively. It reduces the budget to market the event to the right audience.

Through this portal user can register for the event portal, edit and update his profile, user can search for the desired events and pay for the registered events.

As organizer can create an event after login, can set the location venue, price and time for the event.

Administrator has access to all the modules, admin can approve the event requests can change the event time and payments.

2.3 Interactions with Other Applications

This application is running independently. There is no interaction with other application.

2.4 Risk Assessment and Management

This project has some possibility of risk in keeping the server online 24/7 and provide security assurance, these functionalities are outsourced to the cloud platform from which we are hosting our website. The user details are kept in the encrypted database and their values stored in the unreadable format even if they are stolen. The hashed files and the original backup is taken every month to avoid the potential data loss. The event details can be available to the user up to thirty days after the event is over.

3.0 Project Requirements

Users who need to access the event portal should have a computer with internet connection. Below the description of all requirements for this project.

Use Case Diagram

Use Case diagram shows the interaction of different users (Admin, User, Organizer) with portal modules. As depicted in the above figure user can browse events can also create events as organizer can also be a user, on the other hand administrator can do all the tasks, he can see how many events are in the portal who created them. Admin can also remove unwanted events which do not comply with the portal rules.

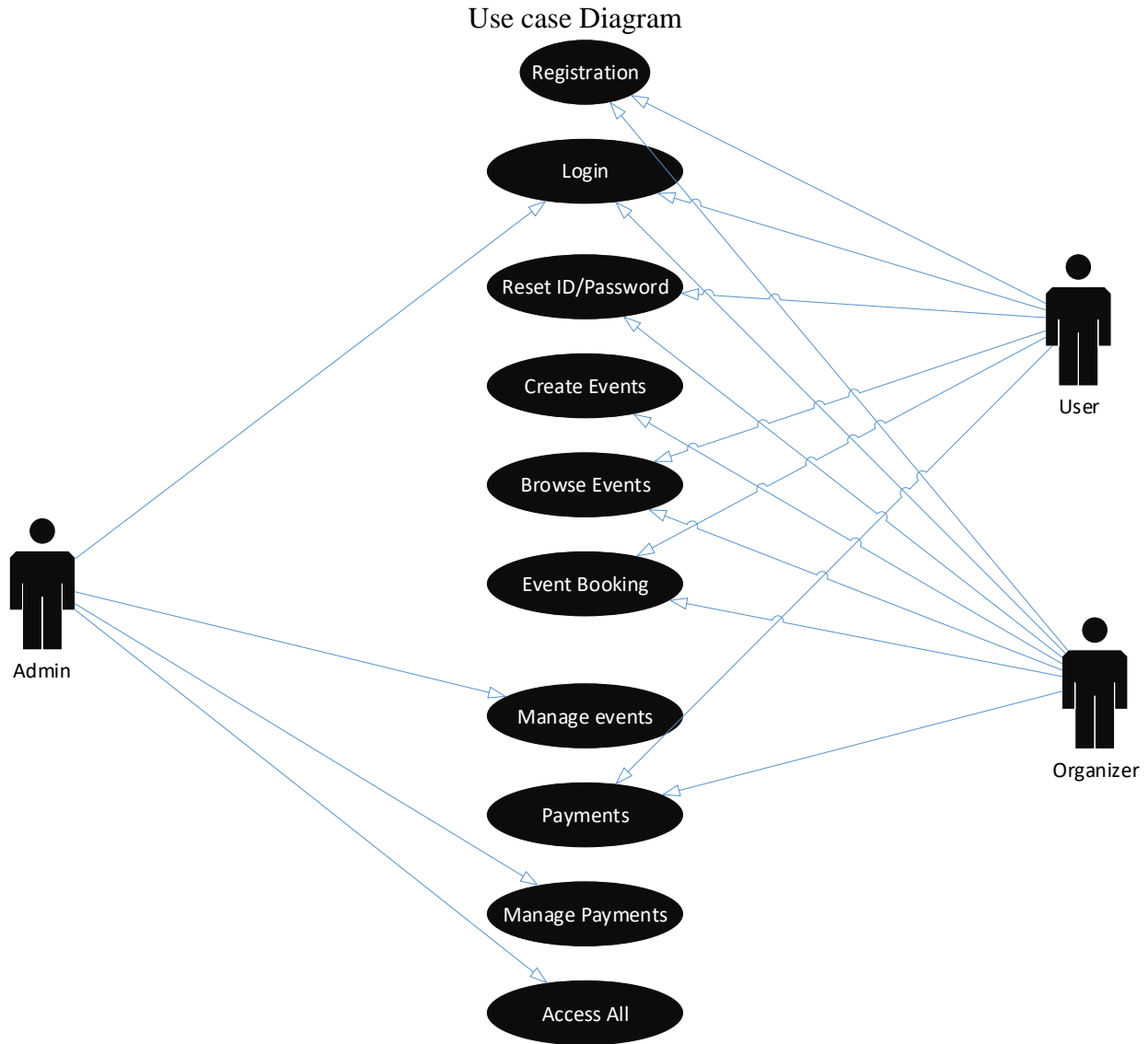


Figure:3.0 Use case diagram

3.1 Identification of Requirements

It is important to have the requirements listed out as the functions are assigned and carried out to by the different resources in the project. These are the functional requirements lined out based on the SMART principle.

3.1.1 Functional Requirements

<GSU-GS_FA2017-001-Registration>

User must register when he was first time visiting the portal to Access the portal. First Name, Last Name, Email id, Username, Password, Confirm Password, Address are the requirements to the registration.

Input: User Information.

Output: Filled Registration Entries by new User and the User details are stored into Database.

<GSU-GS_FA2017-002-Login>

In this Page the User/Admin/Organizer can be login into the system. The System Checks the username/Email and password with database if it is valid then login is done otherwise the person has to enter the details one more time or checks the details what he entered.

Input: Username Email and Password.

Output: Person Profile page like User page/Admin/Organizer.

<GSU-GS_FA2017-003-Forgot Password>

In this site the user can providing some information of user to reset password. If the information is correct user can change password and it will automatically updated into database.

Input: User information (Email Id)

Output: Change the Password.

<GSU-GS_FA2017-004-Event type>

In this site it will shows the list of all Event Types.

Input: Id, Name

Output: Event Type

<GSU-GS_FA2017-005-Event Subtype>

In this site it will shows the list of all Event Subtype.

Input: Id, Event Type, Name

Output: Event Subtype

<GSU-GS_FA2017-006-Event>

In this site new Event is added to the Portal.

Input: Event Name, Event Details, Event Venue(Location), Price, Date, Event Image

Output: Event Added to the database. Thumbnail of Event as added to homepage for display.

<GSU-GS_FA2017-007-Search Event >

In this site User Can Search Events by Title, Event type and Event Location.

Then it will show list of all Events as per search data enter.

Input: Event Title, Event Type and Event Location

Output: List of all Events as per search data enter.

<GSU-GS_FA2017-008-User Page>

In this site the user can be select the event and can proceed to the payment. When you successfully done then selected data added to the database. User can see all Events he is attending.

Input: Event, Payment details

Output: Selected Event details along with confirmation Number.

<GSU-GS_FA2017-009-Admin Page>

In this site Admin can access the Portal. Admin can Edit/Delete event. Admin Can Add the Event Type & Event Subtype. Admin can see list of all Event Bookings with payment details day by day.

Input: New Event Types and Sub Types by Area

Output: Event Type and Event Subtype added Successfully into the Portal.

<GSU-GS_FA2017-0010-Organizer Page>

In this site Organizer can access the events, add/delete the Events, checks the Event Booking Details.

Input: Event Details.

Output: Event details are added to the database/removed from the database.

<GSU-GS_FA2017-0011-Event Booking>

In this Site User Can Book Event for Selected Event

Input: Event Selection, no of Tickets, Select Ticket Kind

Output: Event Booking Confirmation.

<GSU-GS_FA2017-0012-Payment>

In this site Event Payment is done by paying through online banking.

Input: Card Details, Billing Address

Output: Invoice for Payment.

3.1.2 Non-Functional Requirements

Apart from the functional requirements, there are certain requirements needs to be met to make GSU event portal more competitive and on par with the industry standards. They are listed below

Capacity

The website should handle 25,000 requests at a given point of time.

Availability

Website should have uptime of 99.9% in all times.

Recoverability

Website should recover in 3 minutes recovery time, in case of outages due to the database, power, network related issues.

Maintainability

The website maintenance can take place during the midnight of every Thursday to apply updates and data backup procedures.

Security

The website must take all control measure to prevent any attempts to compromise the security of the website. Database must be always protected against all database, injection attacks.

Regulatory

The website must comply with the data collection standards in each state in United States as well as the user or the event organizer should comply with the website policies in data collection and the retention.

3.2 Operation, Administration, Maintenance and Provisioning(OAM&P)

The complete operation administration & maintenance is handled by university. Payments are secured by using gateways which are in developing stages. Keeping risk in mind backup is provided. The data is sensitive, so privacy is maintained. User should contact proper management members to change their passwords.

3.3 Security and Fraud Prevention

Our web application doesn't allow unauthorized access and all access entries are verified by the university management. Apart from the accessing the account we also keep confidential payment data secure under the privacy act of 1974.

3.4 Release and Transition Plan

Respected user or organization will maintain all transition log and maintenance.

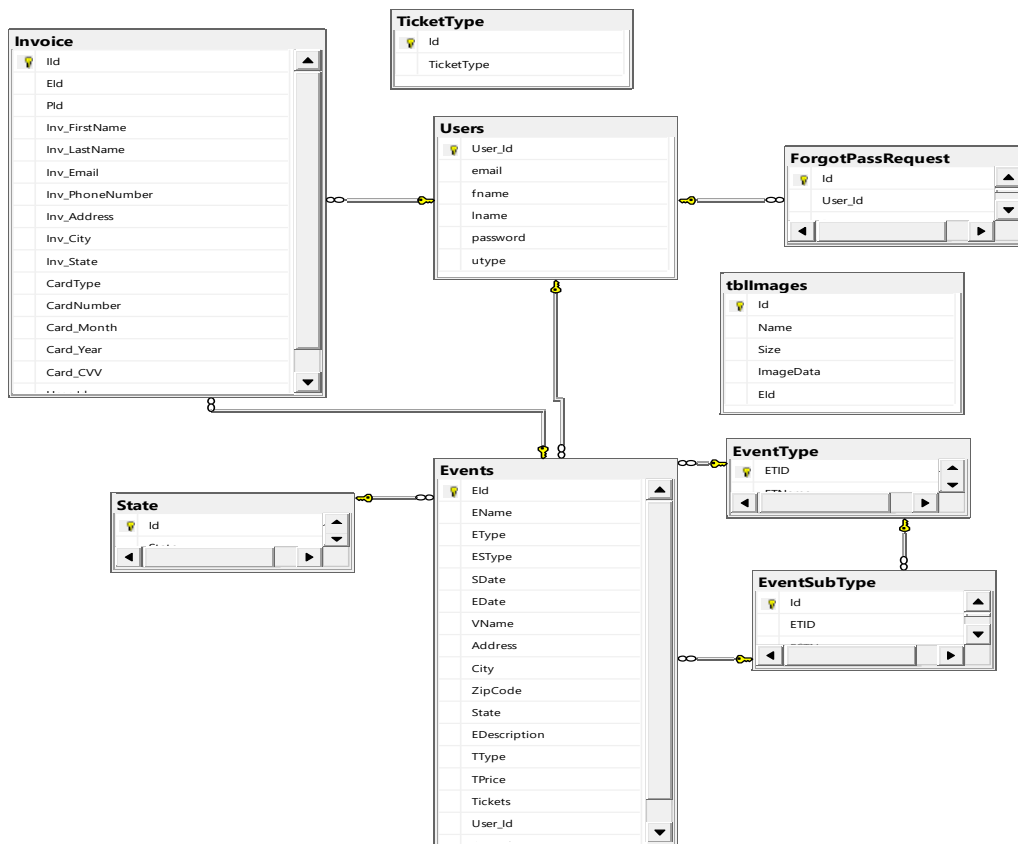
4.0 Project Design Description

This project GSU Event portal is implemented based on the best event management websites like Eventbrite, Event elephant. This website gives a platform for organizers and users a platform to interact with each other. In GSU event portal user can search based on the event type like

exhibition, conference, international festival, based on event subtype art, photo exhibition based on the event location. In organizer page organizer can able to view the no of participants for the event, he can also update his profile. As administrator can access all the functionalities, admin can manage events, can remove the users who are abusing the system. A visitor can search and register for the desired event and the invoice is displayed on the screen and an invoice will be sent to the registered email address.

4.1 Database ER Diagram

The below diagram illustrates the entity relationships between the tables used in the database. As the visitor or user registers for the event the no of tickets will be automatically deducted from the total tickets with the help of triggers.



4.1 ER Diagram and table definitions

4.2 User/ Organizer Sequence Diagram

Below figure illustrates the sequence of user actions in a portal, as how request is generated, how the response is showed in the user interface.

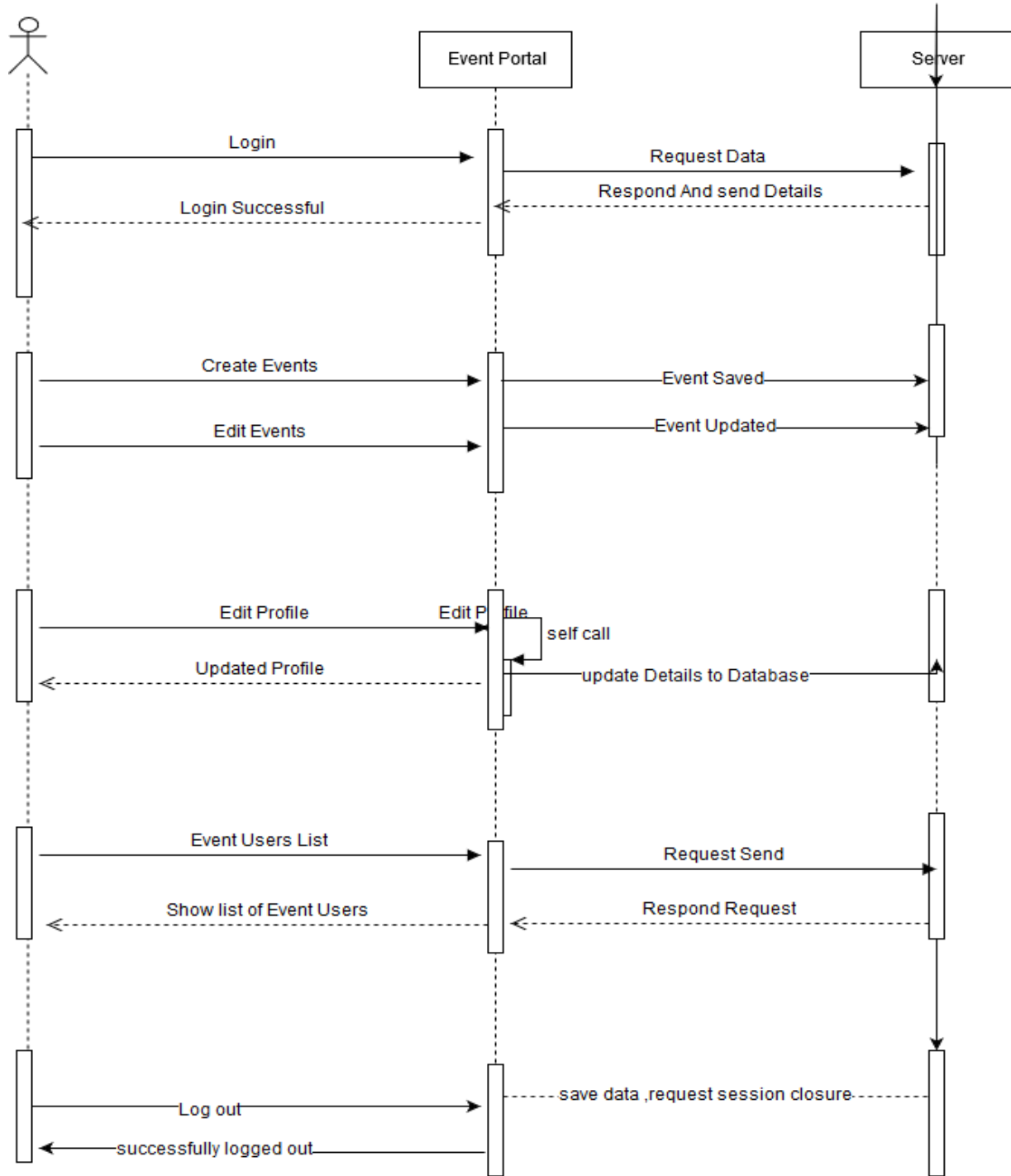


Fig 4.2 user sequence diagram

4.3 Admin Sequence Diagram

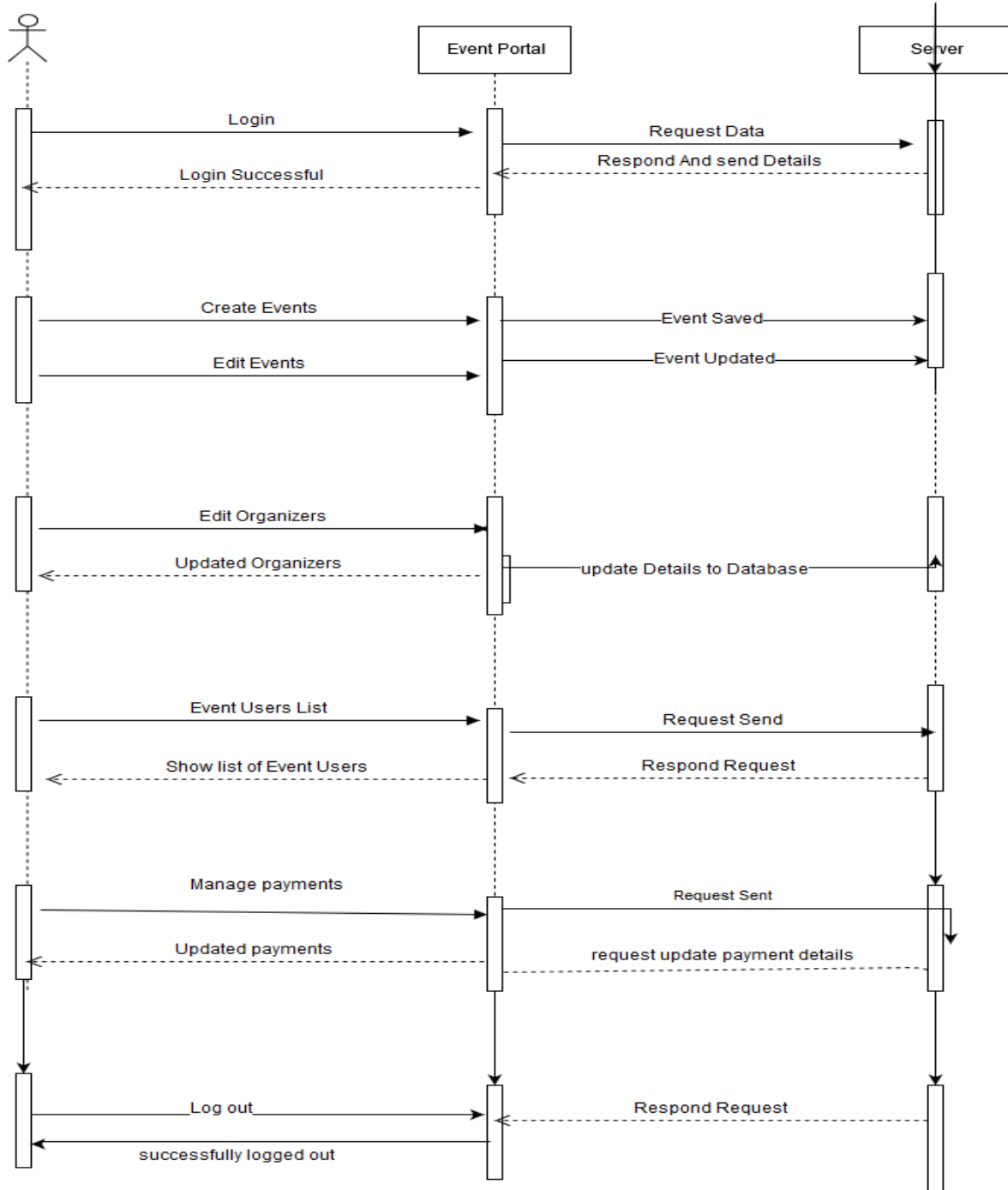


Fig 4.3 Admin sequence diagram

Above figure depicts the admin actions in sequence sum up the whole activity of the GSU event portal, it is represented in different levels starting from how the request is generated and how the response is retrieved.

4.4 Project Flow Chart

User / Organizer Flow Chart

A user can be an organizer as on the Eventbrite website a user can also create an event so in our portal there is no difference between the user and organizer if user creates an event. Portal tracks the data of the user which events he registered and which events he created

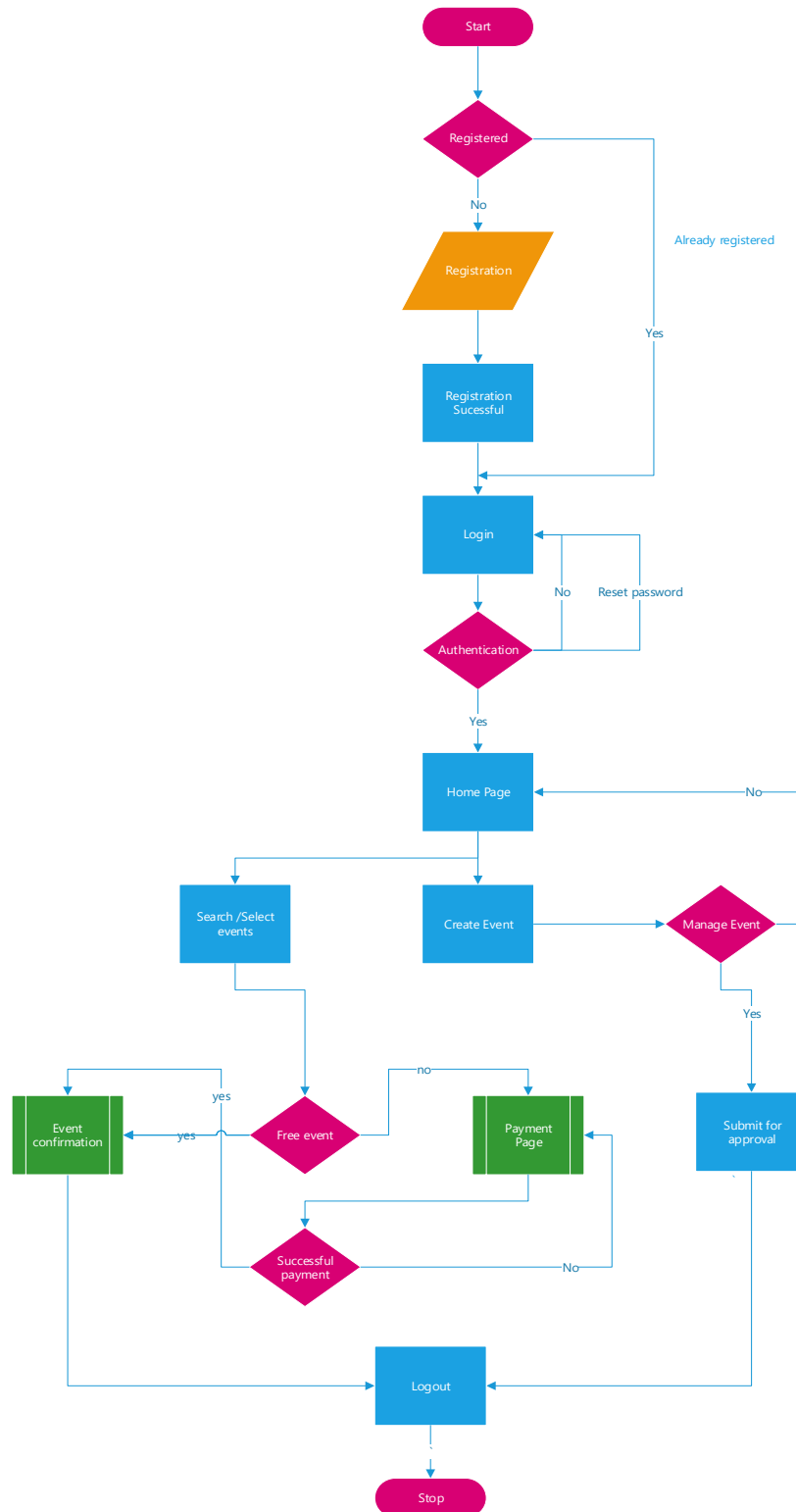


Fig 4.4 user/organizer flowchart

Above flow chart illustrates the user/organizer activity and sequence of actions.

Admin Flow Chart

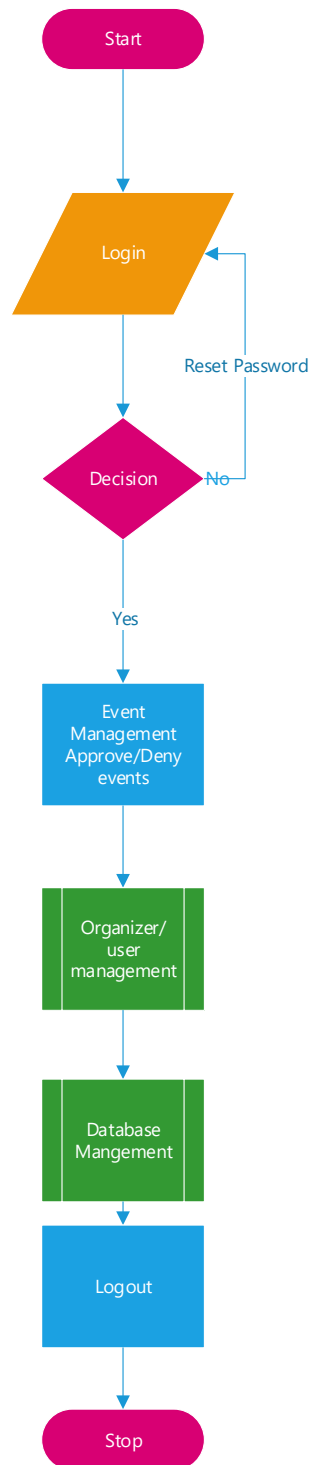


Fig 4.5 Flow chart for admin activity

Above figure is flow chart representation of admin activity. As administrator he controls the portal, has right to regulate events which means he can also take down and block events and users.

5.0 Project Internal/ External Interface Impacts and Specifications

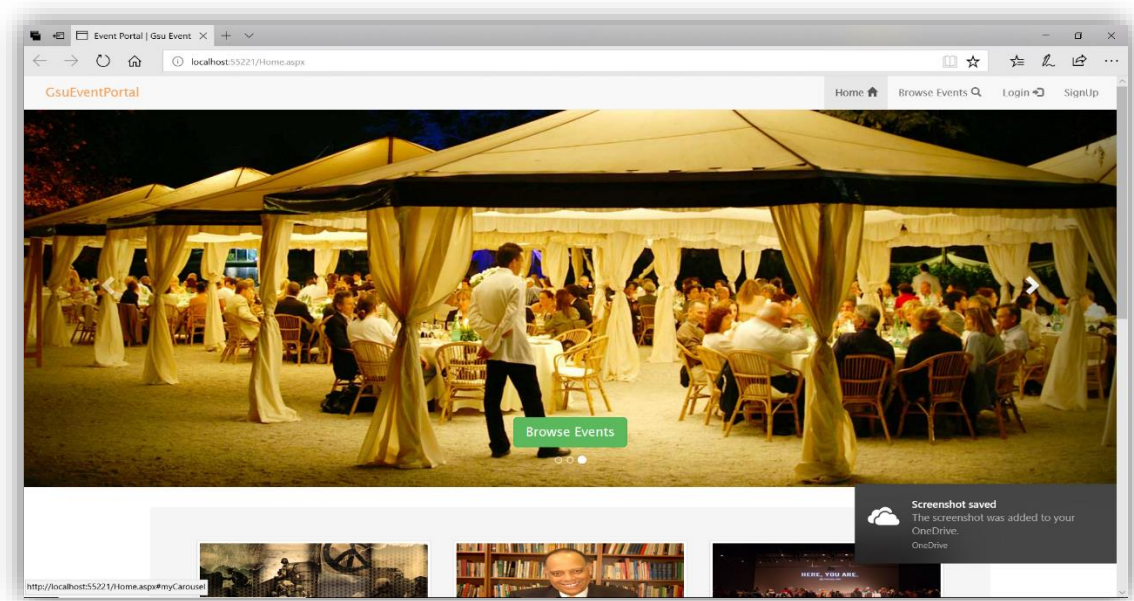
Internal/ External Interface

- This application interfaces with Google Maps to give the better understanding of event location and where it is happening.
- Interface with email server through SMTP protocol, the forgot password function utilizes a Gmail account which is dedicated to send the password requests to registered users.

User Interface

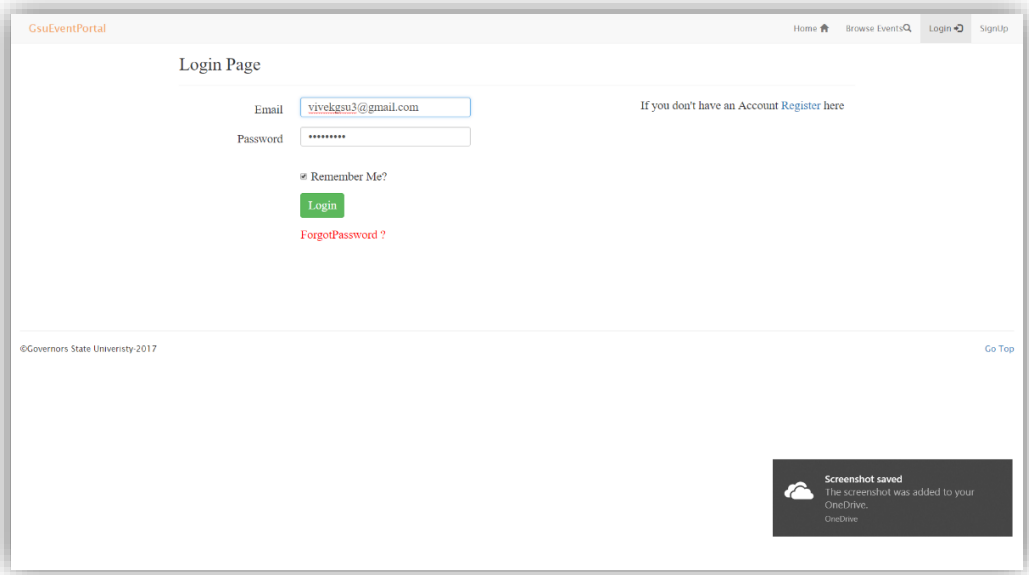
Below are the screenshots of all major pages of this application.

Home Page



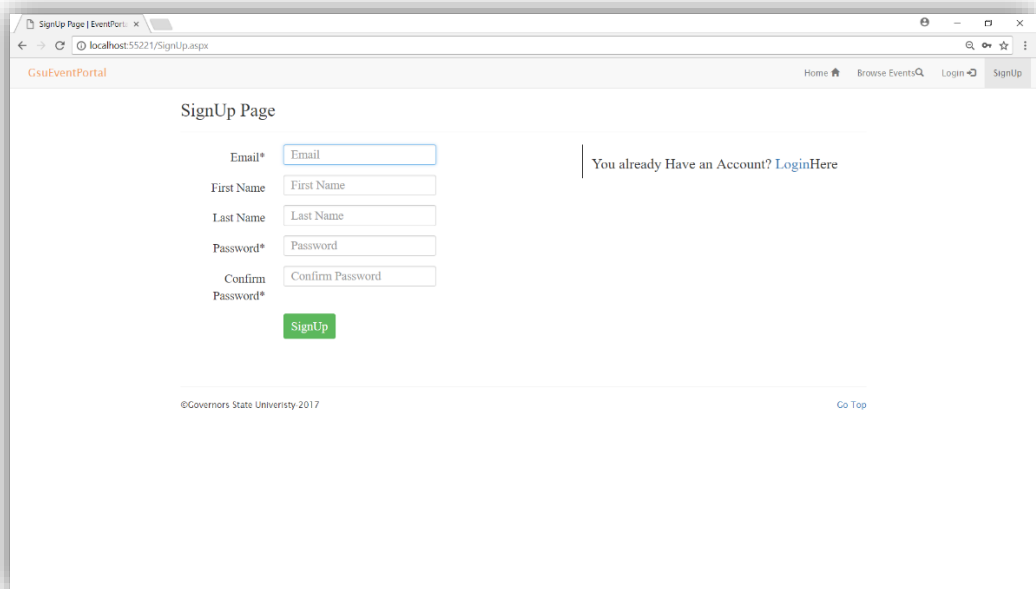
This is the home page of GSU event portal website.

Login Page



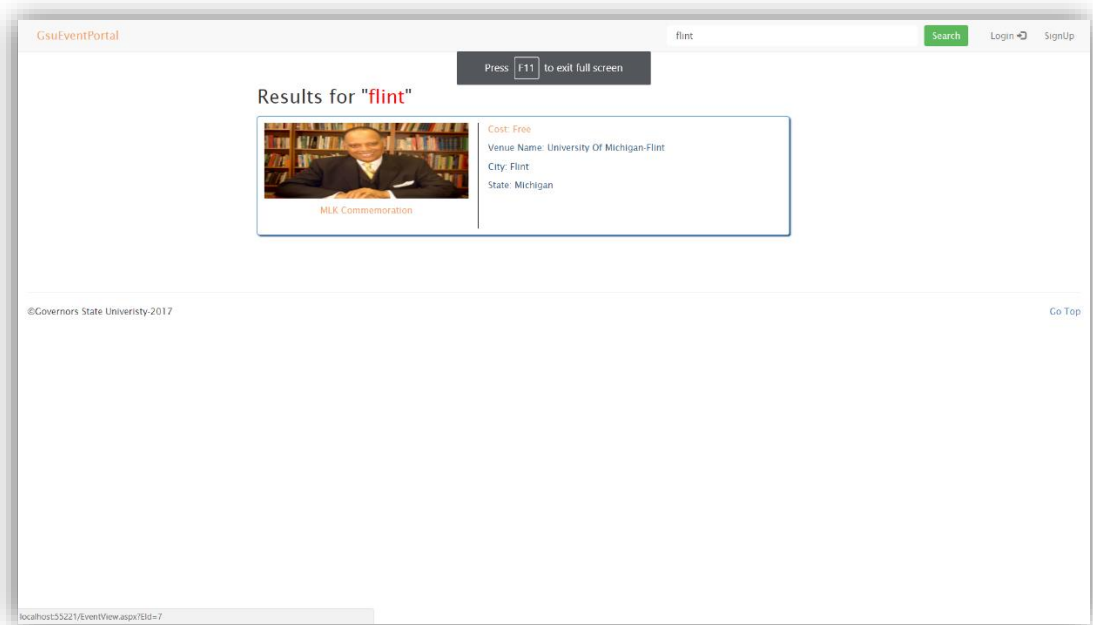
This is the login page where user/organizer or administrator can login to their respective pages.

Signup Page



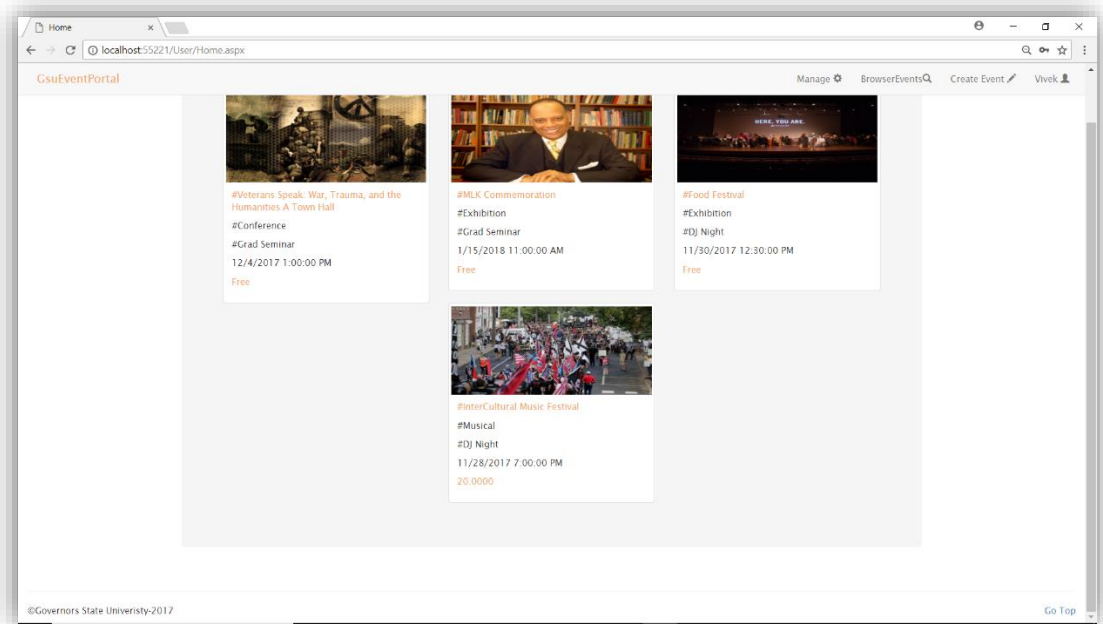
This is the signup page which is required for new user to register and start using GSU event portal. Without registering user/organizer cannot register or create events.

Browse Events



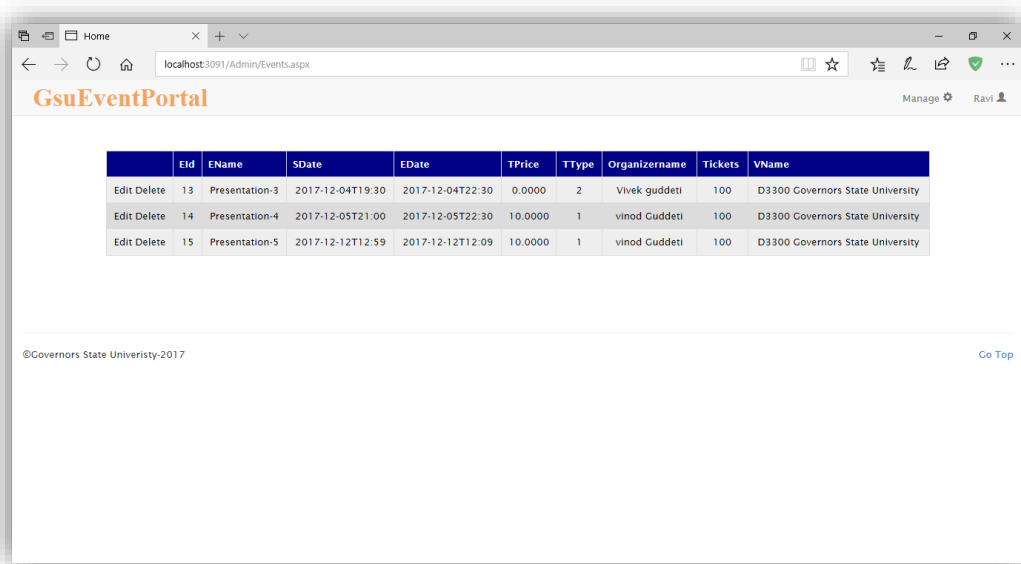
This is the page where user/ organizer can browse events and search for different kind of events by entering the text in search field.

User/Organizer Page



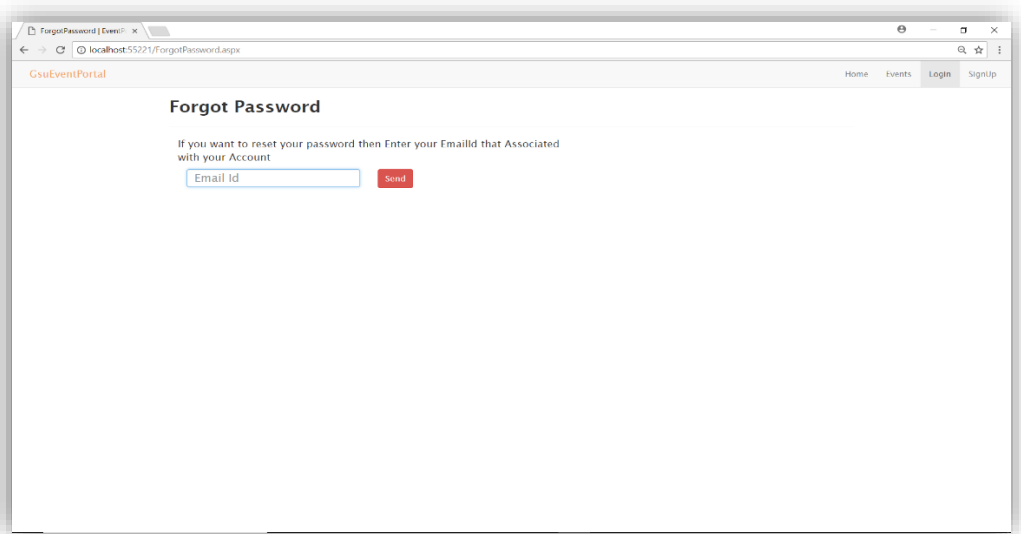
This is the user page, by default the events are displayed on his page, he will be able to manage events, if he registered events or created events.

Admin Page



This is the administrator page, as we can see there is not much going on the page, as if there are any issues, admin can resolve those issues by deleting the bad events or users who are abusing the system.

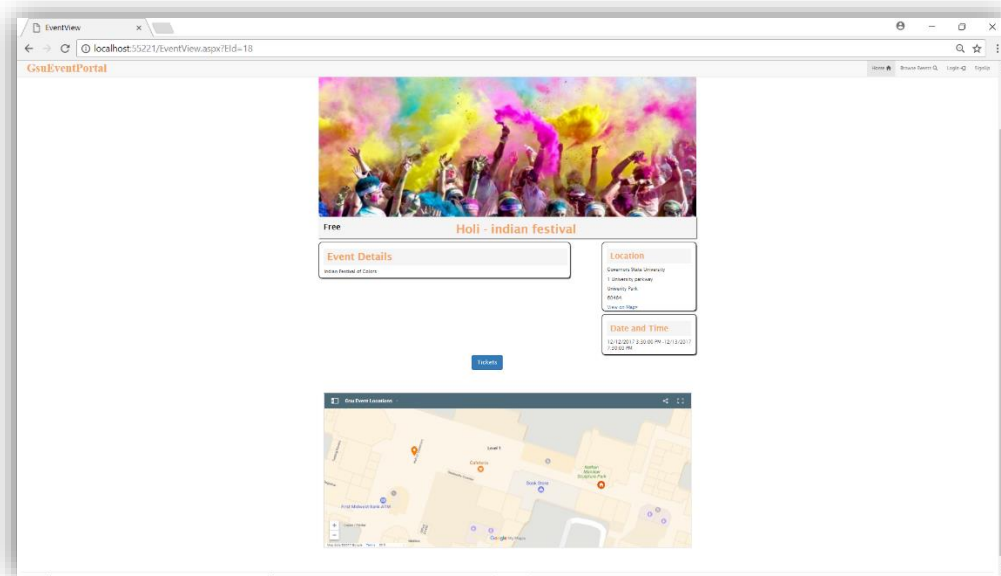
Forgot Password Page



The above page is for resetting the password, every time user request for the password an email is sent via SMTP protocol and a unique number that needs to be in original state and un altered if its altered, the reset link is no longer valid. After

resetting the password, the link will expire automatically and deleted from the password reset table.

Event View Page



6.0 Project Design Units Impacts

6.1 Functional Overview

There are three main design units for this project, they are user registration which includes registration and password reset function, it's the same page for the user and organizer since user can also be organizer. Second unit is event registration, in which organizer can create an event along with event description, third design unit is administration where administrator can control the all functions. In addition to these search function with filtering capability is added to the project.

6.1.1 Impacts

Web application lists the events in grid format where users can browse each event based on the event type, location, event subtype which internally utilizes the SQL inner joins from the event tables.

6.1.2 Requirements

Software Requirements

- Front End: Visual Studio 2017
- Back End: SQL Server 2017
- Operating System: Windows 10 Pro

Hardware Requirements

- Processor: Intel core i5
- RAM: 4GB
- Hard Disk: 500GB

7.Open Issues

GSU event portal is developed to mimic the best event portal websites in the market, they have fully functional event management portal. The one feature that needs to be incorporated in the GSU event portal is the google maps API that shows the location of the event where its taking place, from there user can navigate to google maps and get directions and transit information. These features will be covered in future enhancements section.

8. Acknowledgements

I would like to express my sincere thanks to our project guide Alex Liu, professor with exceptional knowledge and industry expertise at Governors State University. He is our guiding force throughout the completion of this project.

9. References

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