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GSU Event Portal

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ABSTRACT

This sophisticated web application, GSU Event Portal, would allow visitors to search for events happening around the city with the ability of paying for interested up-coming event using a debit/credit card. As the name implies, this web application would display tangible information of such event to event goers.

The technology behind this application is to make visitors more informative and feature in dynamic events which might be live music, live festivals and many more. On the user interface, visitors should be able to search for up-coming events by city, time and event type. The result of the search would provide all events that will be happening at the specified time based on a visitor's search criteria. Event organizers would as well be able to advertise their events ahead of time.

The web application will be available on any device that could browse with internet connected and will be designed in three consoles: The Organizer console, Admin console and user interface. Organizer console will be able to create and edit events, view registration for an event and verify payments. The Admin console will be able to give permissions to Organizers and visitors, edit user's profile and delete user account. The User interface console will be available to visitors and users who would like to register for an up-coming event. In addition to that, it will include map functionality that will show the event location on map. Visitors can only view event listings but to participate in an event, registration would be required for allocation of space.

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1 Project Description

This document is our conceptual design for GSU Event portal web application, a student content management website. In this design document, we will create listings and forms by using screenshots generated from the actual website creation process. We have carried out requirements gathering, definition of database, and worked out a detailed specification of the process and design of the Project. The GSU Event portal will includes features and components stated below:

- a. Convenient browsing experience such as drop-down menus by event locations, types, and categories.
- b. Easy navigation through the Master page which will includes links on the header and footer, and buttons at easy-to-see locations.
- c. There should be a sign-up and a login page.
- d. User console: users log in to create or edit events, review registrations or payments, etc.5.
- e. Admin console: site admins log in to edit or delete events, review registrations, and administer user accounts
- f. Registration process will include: registration form to input user's personal details, confirmation page and email
- g. The website should be mobile-friendly by applying fast responsive design that can run on any device's browser.

The project requires us to have understood and have advanced knowledge on implementing the following tools and functionalities:

- HTML and CSS skill for setting styles for Web forms, paginated listings and dropdown menus
- Responsive design
- Authenticate and authorize users
- Creation of SQL data source and database programming

- Site navigation
- State and cookies
- Server controls and validation controls
- Test and debug Students should study and try to incorporate as many as possible in it.

This project will be designed as a conceptual website that would have the content management known as GSU Event portal. It will be helpful for students and faculty to put into public notice an upcoming events or activities. The portal would allow students and faculty members to view and register for an event by first registering as a user to get updates about an event. It will as well allow students and any interested person to pay for an event using their credit/debit card. It will also allow organizers to create and modify an event by supplying adequate information of the event like location, time and fee if not free. The admin section of the portal would have the authority to delete posted events and users.

1.1 Competitive Information

The GSU Event Portal will be competitive to other event websites like eventbrite.com, eventbee.com and peatix.com.

1.2 Relationship to Other Applications/Projects

The GSU Event portal database is directly related to the MSSQL. The views are also related to the visual studio through the Asp.net technology. The database has a connection to the SQL. The local Asp.net project is published in the environment through the Microsoft Visual Studio platform.

1.3 Assumptions and Dependencies

- This application should have Google API that will help determined locations by address
- This application would depend on Microsoft SQL server for database access. Database accessibility will be guaranteed 24/7
- User interface portal would permit users to manage their profile and track registered events

1.4 Future Enhancements

This project would be designed in three phases. Phase 1: Organizers, Phase 2: Users interface and functions, Phase 3: Admin phase which will include access to delete/edit events created by an organizer, delete user account and give a user an authority to be an admin.

1.5 Definitions and Acronyms

MSSS: Microsoft SQL Server Management

SP: Stored Procedure

MVS: Microsoft Visual Studio

DB: Database

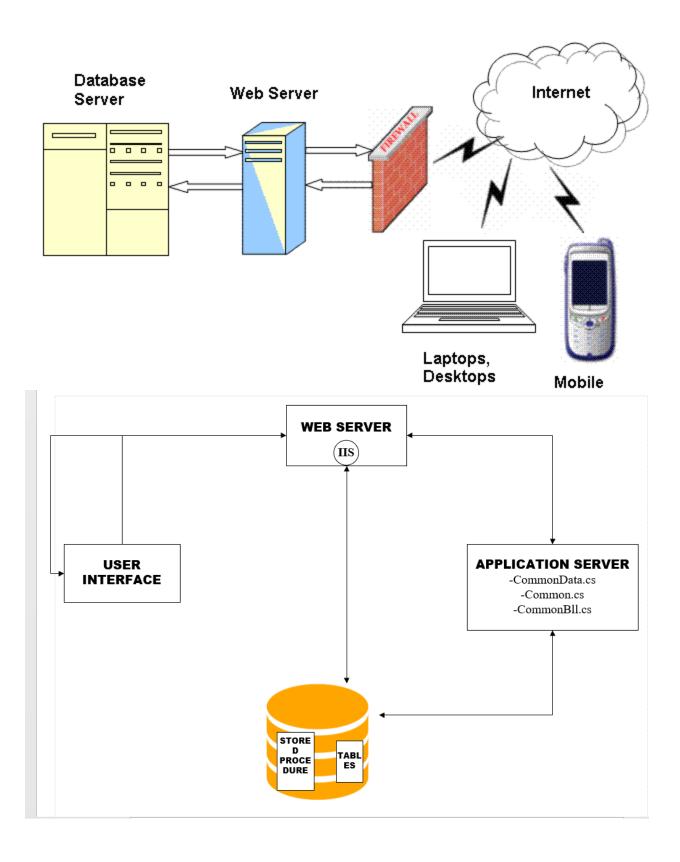
2 Project Technical Description

GSU Event portal is an application that would allow event organizers to create events and specify the capacity of such events by available number of tickets to be sold for such event. The end user which is considered the customers will be able to browse through upcoming events, create a profile, registered for an event, manage their profile and view all registered events. The admin will be considered as the manager of the website by having the accessibility to delete a user account, change password upon request and delete an event.

2.1 Application Architecture

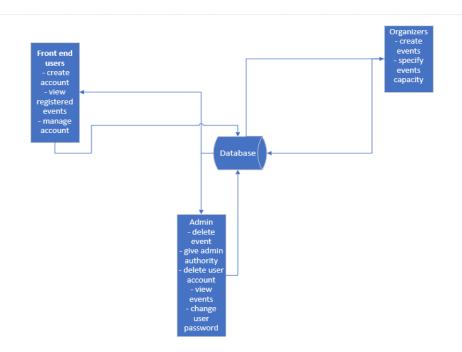
The design of GSU Event portal will be divided into 3 tiers: database, web server and user interface. Below is a sample representative of the architectural design:

3



2.2 Application Information flows

The flow stated below shows how user information are being saved and retrieved from a database:



2.3 Interactions with other Projects (if Any)

The GSU Event portal is a stand-alone application and would not interact with any other project.

2.4 Interactions with other Applications

The Application is a pool resource of two application like Google Map API and for the installing the framework. The Google Map is totally depending on web based association and another thing comes is the payment administration which require the action from outside application.

2.5 Capabilities

The Database is mainly used for giving the business support for the application by providing the following function to the application which may include adding, retrieving, updating and deleting the user data string which connect the ASP.net web application with the database layer should be placed properly while developing it.

2.6 Risk Assessment and Management

Risk Assessment need to be keep in mind two most important thing which should be considered for the upcoming risk for the project while looking in the frame work we can see that there are higher chances of interference from outsider for the Google Map API coordination the result will be based on the two application which act to the server which involve version of software that are not supportive for the publishing of web application in the Microsoft Visual Studio.

3 Project Requirements

3.1 Identification of Requirements

<GSU-EVENT PORTAL FA2017 Roles-000001>

It must include 3 role users: admin, organizers and visitors

Implementation: Mandatory

<GSU-EVENT PORTAL_FA2017 Organizer console-000002>

Organizers must be able to create or edit events, view registrations or payments, etc.

Implementation: Mandatory

<GSU-EVENT PORTAL FA2017 Admin console-000003>

Admins must be able to administer accounts, edit or delete events, review registrations, etc.

Implementation: Mandatory

<GSU-EVENT PORTAL_FA2017 Visitor console-000004>

Visitors must be able to set up their profile and payment info, view log of history, etc.

Implementation: Mandatory

<GSU-EVENT PORTAL_FA2017 Home page-000005>

Front page must show different sections based on types of events

Implementation: Mandatory

<GSU-EVENT PORTAL FA2017 Easy navigation of pages-000006>

Web pages must be Easy to navigate such as header and footer with common links throughout the website

Implementation: Mandatory

<GSU-EVENT PORTAL_FA2017 Sign up and Login page-000007>

The application must have a sign up and login page for users

Implementation: Mandatory

<GSU-EVENT PORTAL FA2017 Search for an event-000008>

Searching for an event must be filter by locations, event types, and categories with text box

Implementation: Mandatory

<GSU-EVENT PORTAL FA2017 Event search result-000009>

Event search result must show a list of hyperlinked thumbnails of events

Implementation: Mandatory

<GSU-EVENT PORTAL FA2017 Event details-000010>

Event page must show photos and full details of event with Web map

Implementation: Mandatory

<GSU-EVENT PORTAL FA2017 Booking of events-000011>

Booking process should include the payment page and confirmation

Implementation: Mandatory

<GSU-EVENT PORTAL FA2017 Event search result-000012>

Event search result must show similar events, recommended events, events in your area, etc.

Implementation: Mandatory

<GSU-EVENT PORTAL_FA2017 Web Mapping-000013>

Result of event search must show the location of each event on a map

Implementation: Mandatory

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

The Admin should have access to all user profile in the application and would be responsible for creating backup and keeping the data secure. Users are limited to only create account by signing up, manage their user profile, view and register for an event. The administrator would be authorized to give access to a specific user to become an admin.

3.3 Security and Fraud Prevention

The Framework should be secured, and client can access it by their user id (which in this design will be the email account provided when signing up) and password. Only administrator

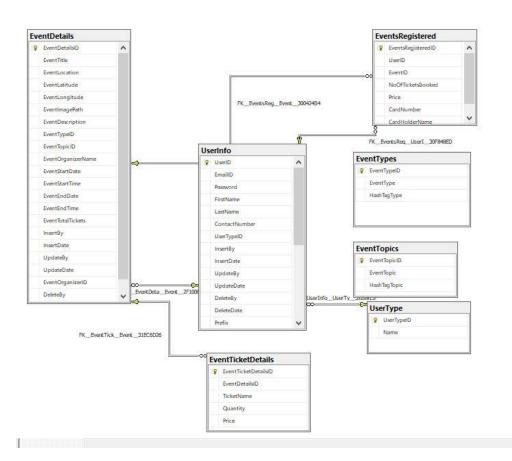
would have the direct access to the login credential and the framework would be designed to restrict unauthorized access to the application.

3.4 Release and Transition Plan

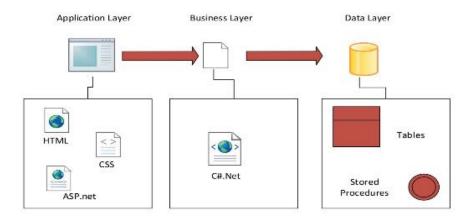
The Application framework after being successfully deployed will be send to a facility server where it will have access to the web. Users should be able to access it from the web browser and there will be no compilation needed. Any upgrade to the framework will be send to such facility server for update.

4 Project Design Description

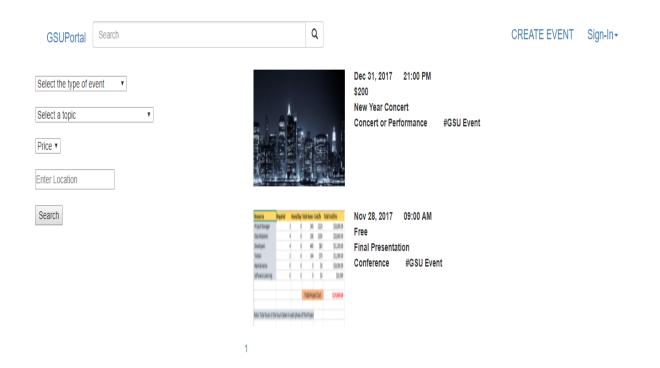
Database Diagram



Components Design



The GSU Event portal has 3 main components: server, web pages and database. Our website serves the purpose of helping organizers to publish the events so that the people can view can buy the tickets for the events they are interested in. We have 3 major layers: Application Layer, Business layer and Data layer. Application layer comprises of Html pages, CSS and the Asp .net. Business layer comprises of logic written in C#. Data layer has database to store data. We would use Microsoft SQL Server 2016 for the design and programming of our database. We have carried out application requirement gathering and definition of database, and have worked out a detailed specification of the process of the project. The project consists of several event features like purchasing of event tickets, organizers can publish their events, and delete posted events. The Admin can add/delete, manage user account and as well delete events. The Admin has the highest authority. The screen below is an example of registered event page which a visitor could browse through even without signing up for an account:



There are options where the user can search events based on its type, price, and location. A visitor must first sign up before buying an event ticket. After signing up user information will be stored in the database. Once the user has purchased a ticket, the remaining number of tickets for that event will be reduced by the quantity of tickets purchased. For example, If the event has 10 tickets available and a user purchased 2 tickets, the total number of tickets remaining for the event will be 8. Other functionality includes: add event to calendar, view event location on map and email confirmation when creating a new user profile and forgot password reset email.

5 Internal/external Interface Impacts and Specification

Most of the database changes such as the addition of a new user, addition of new event, and any changes to the event details are triggered by interactions with the website. The internal impacts are the changes to the database when an event is modified, deleted or added by a user. Created events are stored in the EventDetails entity in the database, while user's information is stored in the UserDetails entity in the database.

6 Design Units Impacts

For GSU Event Portal application to function properly we have a connection between a Visual Studio and Microsoft SQL Server. In our project, we used Visual Studio 2015 and Microsoft SQL Server 2016. As we have included Google maps in our project, we took help from Google developer console where we need to sign up for google map key. We used the Google API and JavaScript in the application to work with maps without any obstruction.

6.1 Functional Area A/Design Unit A

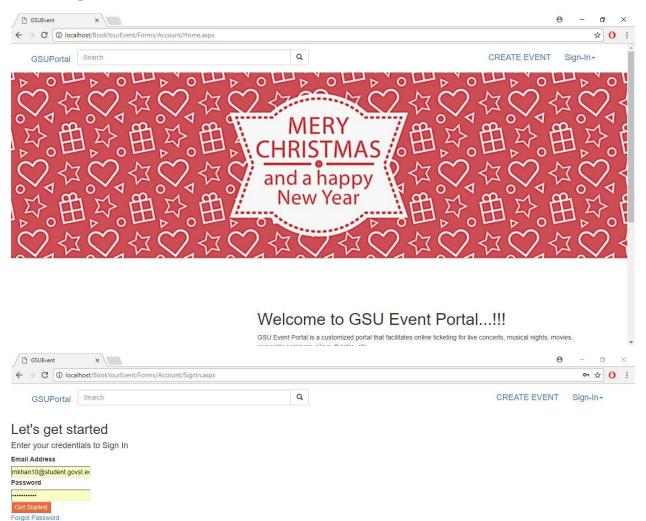
6.1.1 Functional Overview

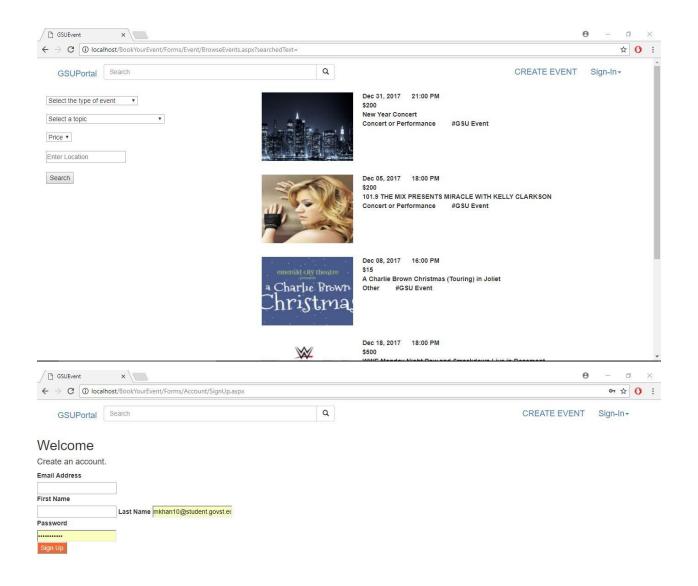
This functional area shows the front-end UI of the application which is developed using Asp.net, HTML and CSS.

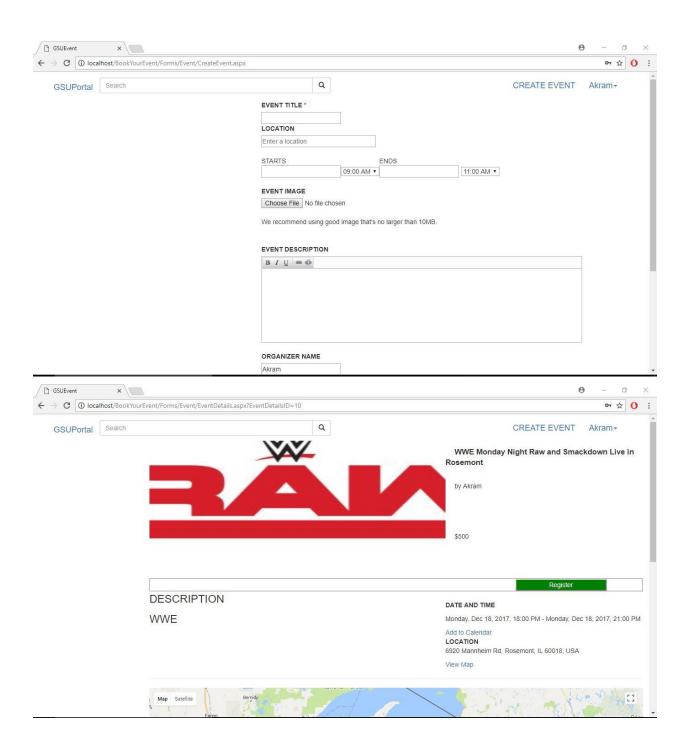
6.1.2 Impacts

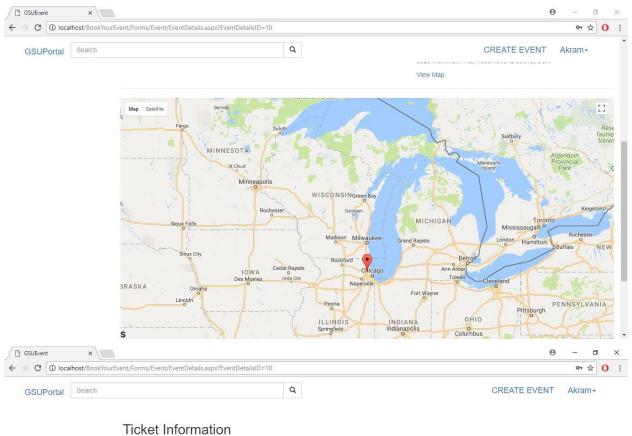
The impact created by the Asp.net, HTML and CSS deals with the front-end design of the application and they are done by using Visual Studio 2015 edition.

6.1.3 Requirements

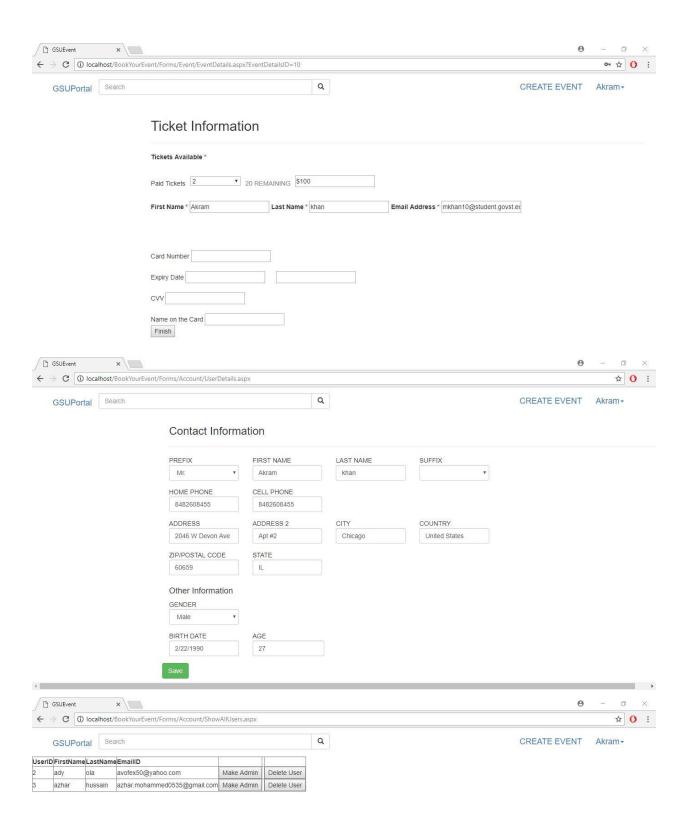


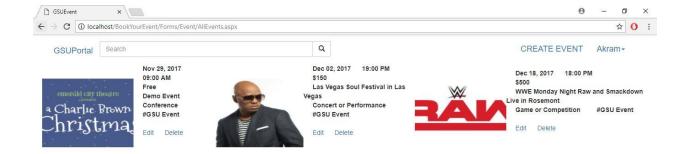






Tickets Avail	able *		
Paid Tickets	Select Tickets ▼ 20 REN	MAINING	
First Name *	Akram	Last Name * khan	Email Address * mkhan10@student.govst.ed
Complete Re	egistration		





6.2 Functional Area B/Design Unit B

6.2.1 Functional Overview

This function deals with the Database connectivity which has a major impact on Application

6.2.2 Impacts

Database plays a major role in our application. The Impact of database is very high. We have various database tables which stores the GSU Event Portal data which includes Event Details, User Information and payment information.

We also have some stored procedure which is being created for various purpose. These stored comes handy with our application.

7 Acknowledgements

We wish to express our sincere gratitude to our project supervisor Dr. Soon Park for providing us with adequate Information that helped us to successfully complete this project within the specified time frame, and her constant communication on how to make the project better. We will be extending our vote of thanks to Dr. Young Park, Professor Chen, Professor Alex Liu, the Director of Computer Science Dr. Shi and all feasible and shadow fellow who in one way or the featured in the development of this great work. We also wish to express our sincere gratitude to the officials, academic and

nonacademic staffs of Governor State University who rendered their portion of help in the attainment of our master degree program.

8 References

- 1. How to use SQL Server management studio. Retrieved from: http://www.cis.wtamu.edu/tutorials/From_Home_SQL_Server_Tutorials.pdf
- 2. Prof. Looby (November 2009). 3-tier Web Architecture (w/DBMS core). (2012). Retrieved from http://www.ciss100.com/lecture-topics-modules/database/3-tier-web-architecture/
- 3. Mohtashim M. (Tutorials Points) (2017). <u>ASP.NET</u> Tutorial. Retrieved from http://www.tutorialspoint.com/asp.net/
- 4. Code Academy. HTML Basics. Retrieved from https://www.codecademy.com/courses/web-beginner-en-HZA3b/0/1?curriculum_id=50579fb998b470000202dc8b
- 5. Mike S., Lars P. (August 2015). Microsoft Visual Studio 2015 Unleashed, Third Edition. Retrieved from https://www.safaribooksonline.com/library/view/microsoft-visual-studio/9780134133164/
- 6. Microsoft. SQL Server Management Studio Tutorial. Retrieved from https://msdn.microsoft.com/en-us/library/bb934498.aspx