CEREMONY EVENT MANAGEMENT SYSTEM (CERVENT)

By

HAKIM RAUT (6-2-1180-59-2019)
RAMESH PARAJULI (6-2-1180-69-2019)

A project report submitted in partial fulfillment of the requirements for the degree of Bachelors in Computer Application (BCA) awarded by

Faculty of Humanities and Social Sciences, Tribhuvan University

Sagarmatha College of Science and Technology
Sanepa, Lalitpur

December, 2023

Sagarmatha College of Science and Technology
Sanepa, Lalitpur
(T.U. Affiliate)

DISCLAIMER

We hereby declare that this study entitled "***CEREMONY EVENT MANAGEMENT SYSTEM***" is based on our original research work. Related work on this topic by other researchers have been duly acknowledged. We owe all the liabilities relating to accuracy and authenticity of the data or any other information included hereunder.

Hakim Raut
Ramesh Parajuli

Sagarmatha College of Science and Technology
Sanepa, Lalitpur
(T.U. Affiliate)

SUPERVISOR'S RECOMMENDATION

This is to certify that this project entitled, "CEREMONY EVENT MANAGEMENT SYSTEM" prepared and submitted by Hakim Raut , and Ramesh Parajuli in partial fulfillment of the requirements for the degree of Bachelors in Computer Application (BCA) awarded by Tribhuvan University, has been completed under my supervision. I recommend the same for acceptance by Tribhuvan University.

……

Mr. Bishnu Khadka

Date:

Sagarmatha College of Science and Technology
Sanepa, Lalitpur
(T.U. Affiliate)

CERTIFICATE OF APRROVAL

This is to certify that this project prepared by ***Hakim Raut , and Ramesh Parajuli*** entitled "***CEREMONY EVENT MANAGEMENT SYSTEM***" in partial fulfillment of the requirements for the degree of Bachelors in Computer Application (BCA) awarded by Tribhuvan University has been well studied. In our opinion, it is satisfactory in the scope and quality as a project for the required degree.

	…….	……..
Asst. Professor T.U. (***External Examiner***)	(Signature)	(Date)
	…….	……..
Bishnu Khadka Sagarmatha College of Science and Technology (***Supervisor***)	(Signature)	(Date)
	…….	……..
Pratik Timalsena Sagarmatha College of Science and Technology (***Program Coordinator/Internal Examiner***)	(Signature)	(Date)

ACKNOWLEDGEMENT

The success and final outcomes of this project requires a lot of guidance and assistance from many people and are very fortunate to have this all along the completion of this project. We are very glad to express our deepest sense of gratitude and sincere thanks to our highly respected and esteemed supervisor sir Bishnu Khadka , SCST college for valuable supervision, guidance, encouragement, and support for completing this work. All useful suggestions for this whole work and co-operative behaviour are sincerely acknowledged.

We thank to all our friends and teachers who have contributed directly or indirectly in accomplishment of this project.

ABSTRACT

The term “Cervent” refers to the use of computers or computerized equipment to book , create an votes in an event. Cervent is a form of e-booking in which computers, and network resources are used to book or create an event. Cervent aims to increasing participation, saving times and improving the communications among invited. This project details the requirements, design and implementation of Cervent by which user can create or book event from anywhere. NodeJs based website is designed, and developed to address the difficulties of physical event booking.

Table Of Content

CHAPTER 1

INTRODUCTION

This report offers a unique perspective on the Cervent an Event Management System. This report informs the reader about the project, how it was planned, designed, and tested, what it does, and what kind of research was conducted to produce the project's result.The goal of this project was to address the situation of the event management system in Nepal. This program will assist users in quickly creating their own event for a variety of purposes and types of events, such as cultural events, traditional events, personal events, and so on.

1.1 Background

As cervent project is an event management project which allows user to create event of own choice with own venue, it will be so helpful in the event management as compared to existing event management system which takes more cost and have limited options to choose venue. It benefits not only the the general public but also event organizer vendors who are eager to join in various events but are left behind and disheartened owing to the difficulty in locating a suitable event near them. It also encourages local residents to organize various activities and enhance public participation, which could lead to the country's rapid development.

This project is based on the web application which allow to user to create or make booking of the events. All the data of the user will be managed by super user which is the developer of the application itself. It will be deployed to help Nepali user to manage event and its current features are based on the trend of event management in Nepal and after the successful usage and review its features will be updated and international market trend will be developed accordingly. All tasks, whether they are gathering requirements or developing features, are planned, and accomplished using the software engineering technique. This report also details what issues can arise when the project is completed and deployed, as well as how we might overcome or deal with them.

1.2 Problem Statement

In Nepal, traditional traditions are still utilized to create ceremonies and other events such as pasni, bratabandh, occasion, birthday celebrations, anniversaries and so on. People are still not involving using technology in event management due to lack of public awareness of technology, lack of trust towards technology and lack of budget to make simple and small event such as Ceremonies are still held at home without competent supervision, and catering and food services are difficult to organize. The event organizer takes very high charge to manage event and only few people can afford that cost and there is also no option or choice to organize event by their own in their suitable location. People have to rely on the event organizer vendors. Event organizer along with the general user are struggling in the event management. The event organizer has to create marketing strategies, aware people about the event, have to create tickets, publish about event, call third party person for selling their ticket which is very long process and takes more time to make a successful event. It will be highly advantageous and methodical to use new technologies and ideas in event management.

1.3 Objectives

- Online venue booking facilities
- Find affordable venue options
- Create own events and also can make bookings others event
- Vendor can create event bookings price and people can book affordable venue according to budge and suitable place for their events.
- No need to spend money for advertisement, people will be aware about event and event's features from the application
- Simple and small event will be easily managed with the limited criteria

1.4 Scope

Cervent can be used to create/book an event for personal event , performing ceremony, party with all types of facilities and details available in the event.

1.5 Report Organization

Chapter 1 includes introduction to Cervent, and objectives of the project.
Chapter 2 lists related works in Cervent.
Chapter 3 deals with requirements analysis, and feasibility study.
Chapter 4 shows design details of the project.
Chapter 5 includes system architecture along with implementation details.
Chapter 6 explains testing procedure of the system.
Chapter 7 summarizes the project along with future recommendations.

CHAPTER 2

LITERATURE REVIEW

Every aspect of employment is migrating towards technology as the technological revolution proceeds in the twenty-first century, in order to boost productivity. Almost every industry now employs cutting-edge technology to make their work more profitable and simpler. Others, on the other hand, are unable to fully exploit modern industry innovations, resulting in more onerous labour efforts. One of the industries in Nepal that has yet to incorporate modern technologies is event management. In Nepal, this sector continues to work in numerous traditional methods. It needs to be modified to incorporate modern technologies in order to boost the success of the Nepalese event. Even private gatherings, anniversaries, and weddings are being coordinated by event management companies. This growing trend of hiring professional event management companies for private gatherings provides event management companies with a wealth of options to grow and thrive (The Week Bureau, 2018). Because this is such a modern sector, practically all of the users are new and young, and they are led and managed by new and youthful people. Due to the lack of an experienced organizer and involvement of people in technology, these young generation people have greater opportunities in the sector. People in Nepal are still falling behind in terms of technology when it comes to establishing events, making event ticket bookings, and even conducting and selling event tickets on the side. There are no good ways/methods for creating own events with appropriate venues, making event bookings according to budget and services. Even though event management is a relatively new idea in Nepal, it has drawn investment due to its potential for growth and profitability. This sector has expanded dramatically in the previous decade or two, and it is now one of Nepal's primary service industries.

CHAPTER 3

SYSTEM ANALYSIS

This chapter deals with requirements analysis, feasibility study, data modeling, and process modeling for the cervent.

3.1 Requirement Analysis

During this stage functional, and non-functional requirements of the system are collected, and analyzed.

3.1.1 Major Actors

A. **User**

User can register and create their own event or can book other's event.

3.1.2 Functional Requirements

The functional requirements of the system are captured using use-case model. The functional requirements are captured from both user, and system perspectives.

The major functional requirements of the Cervent system are listed below:

- User can register to system by providing basic details.
- After registration user can able to login to system and create a event.
- User can also book other event if he/she interested.
- User can also purchase tickets in QR form and use it to enter in event.

A. Use-Case Diagram for the USER

Figure below shows the use-case diagram for the user. User can Log In with valid credentials, Create event/book event and then Log Out from the system.

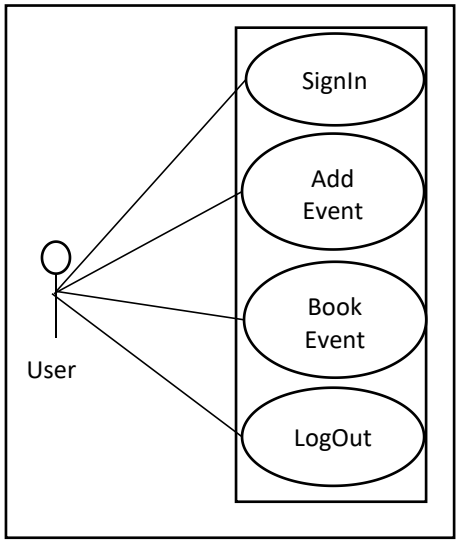


Figure : Use-case diagram for user.

3.1.3 Non-functional Requirements

The major non-functional requirements of the system are listed below.

- System must generate QR code after buying tickets.
- System must provide event's details such as event manager.

3.2 Feasibility Study

The feasibility of the project is analyzed in this phase.Three key considerations are taken into account:

3.2.1 Economic Feasibility

The resources for the development of this project were all available freely. No any specific hardware or software was purchased for the development of this project, and this project was done for the academic purpose. So, the project was found to be economically feasible.

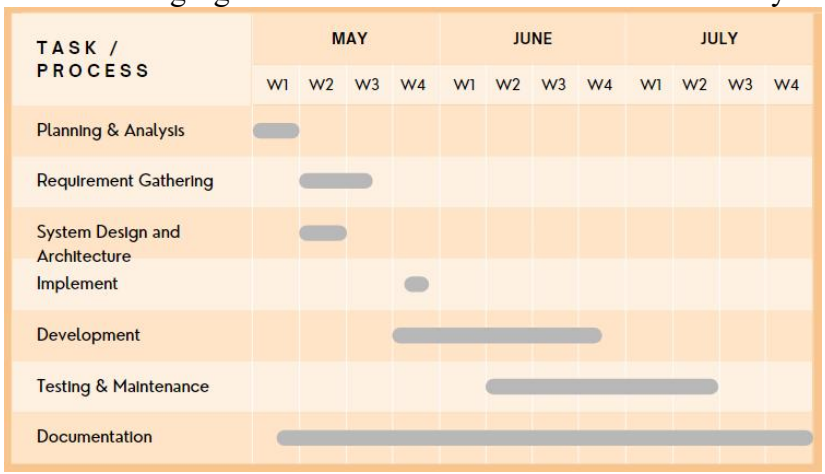
3.2.2 Technical Feasibility

For the development of this project, we used different tools and technologies like Nodejs, React and CSS. Also, we had all the required technical expertise to use mentioned development tools. So, the project was found to be technically feasible.

3.2.3 Operational Feasibility

Cervent is a web-application system. Web browser is the operational environment for the application. Any modern browser such as Chrome, Mozilla, and Opera can run the Cervent. Hence, the project was found to be operationally feasible.

The following figure shows the Gantt-chart of the Cervent system.



.

3.3 Data Modelling

Structure of the data elements in Cervent and the relationships between data elements are established using E-R diagram. Crow's Foot Notation is used to draw an E-R diagram.

In crow's foot notation, an entity is represented by a rectangle, with its name on the top. The name is singular (entity) rather than plural (entities). Attributes are placed inside the Entity rectangle. Relationships illustrate the association between two entities. They are presented as a straight line. A relationship with attributes is represented by dotted line connecting the rectangle. Each relationship has a name,expressed as a verb,written on the relationship line.

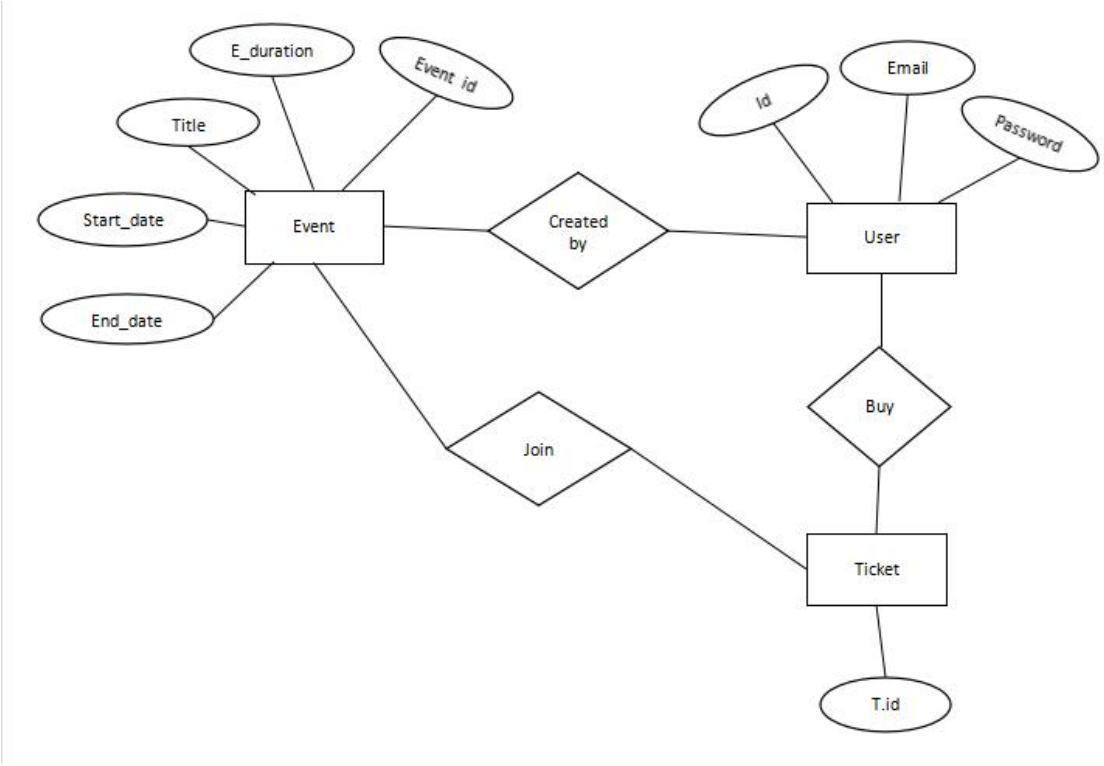


Figure : ER Diagram for Cervent.

3.4 Process Modeling

Context diagram, and DFD a re used to capture the major processes in the cervent.

3.4.1 Context Diagram/ Level-0 DFD

The context diagram of the Cervent is shown in the figure below. Entire Cervent is shown as a single process.

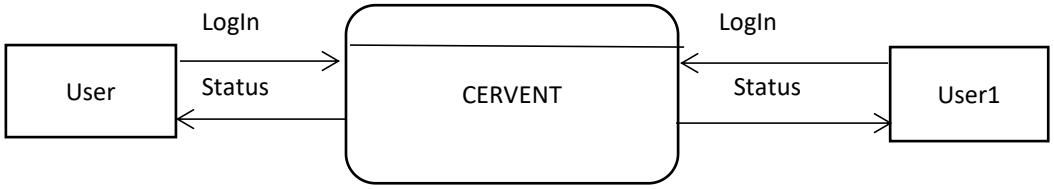


Figure : Context diagram for user.

3.4.2 Level-1 DFD

This section contains level-1 DFD for User. It contains four processes; ***Login, Add Event, Manage Profile, Buy tickets.***

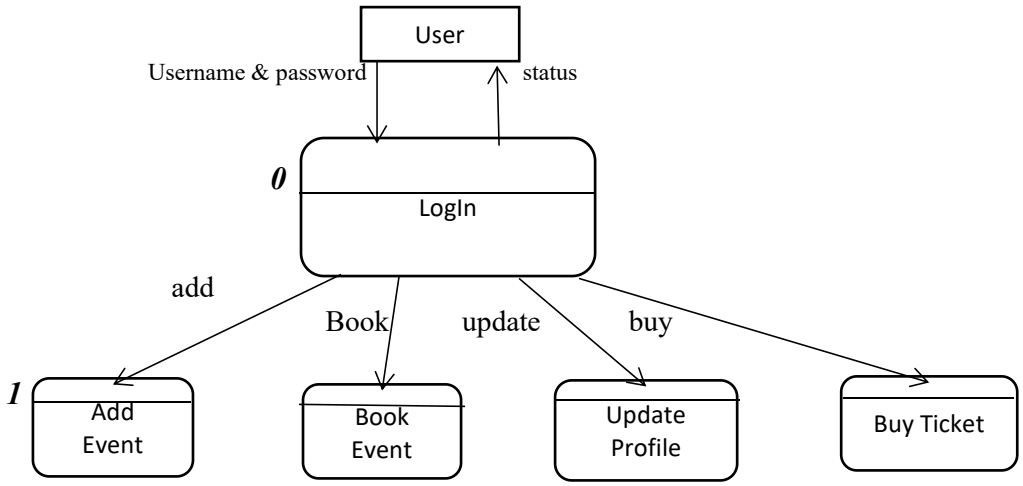


Figure : Level-1 diagram for user.

CHAPTER 4

SYSTEM DESIGN

This section includes the architectural design of the Cervent along with detailed description. Schema diagram with database constraints, and major elements of Cervent UI design are also explained in this chapter.

4.1 Architectural Design

Cervent is designed as a 3-layer software architecture as shown in the figure below. User can interact with Cervent via GUI provided in application layer. Any modern browser application can be used at the application layer to access Cervent.

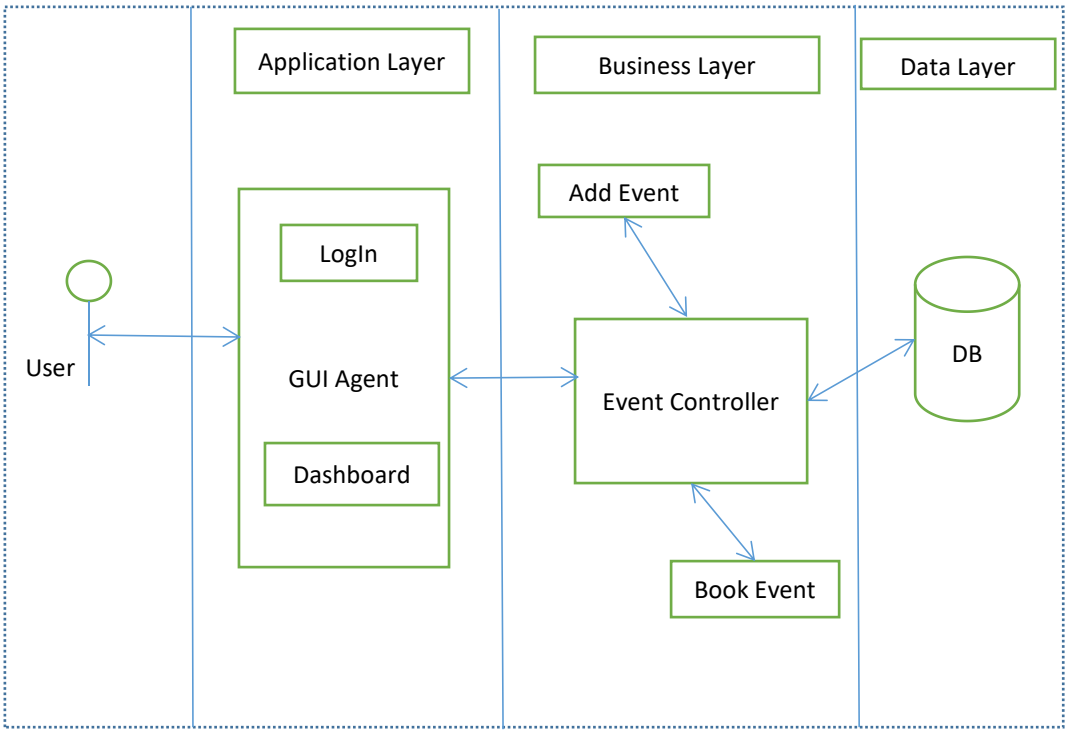


Figure : Architectural design

4.2 UI Design

This section briefly explains the way in which the users will interact with the system

and the nature of the inputs and outputs that the cervent accepts and produces.

4.2.1 Layout Design

This section deals with the layout of the web page, form, or report that are displayed by the cervent. Consistent layout is designed for each web page, and form.

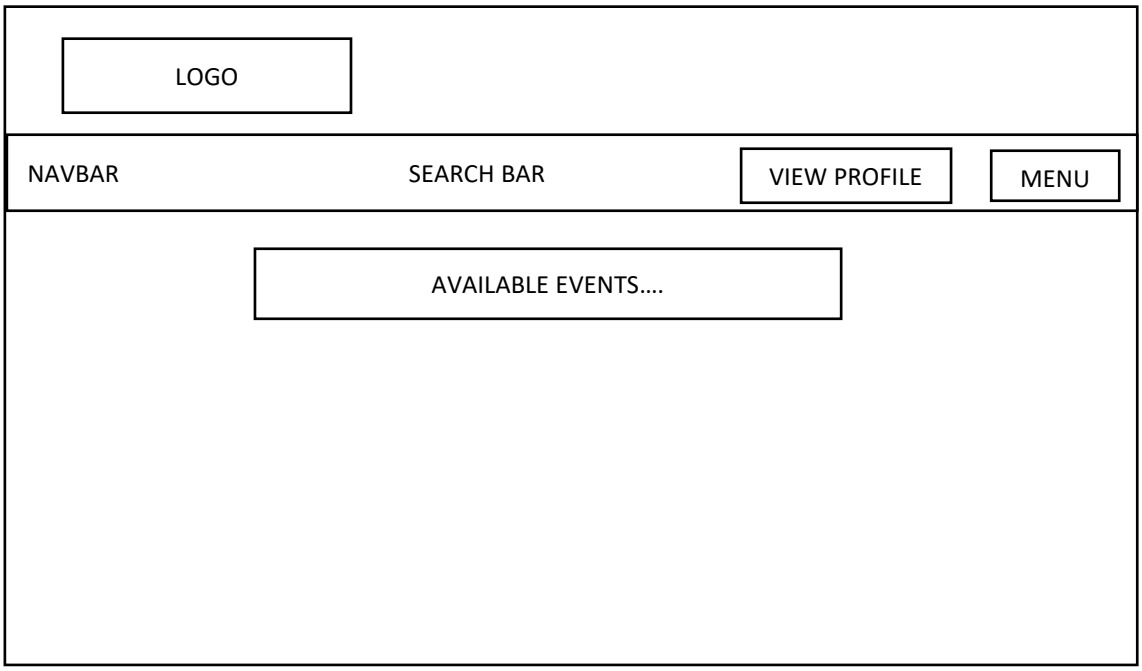


Figure : Layout design

4.2.2 Navigation Design

Different types of menus, buttons, and messages are designed and implemented for the navigation control. Major navigation controls used in cervent are shown in the table below.

CHAPTER 5

IMPLEMENTATION

This chapter is divided into two parts. First part provides Cervent workflow with major functional components, and their implementation details. Second part explains the implementation/design tools of the project.

5.1 Cervent Workflow

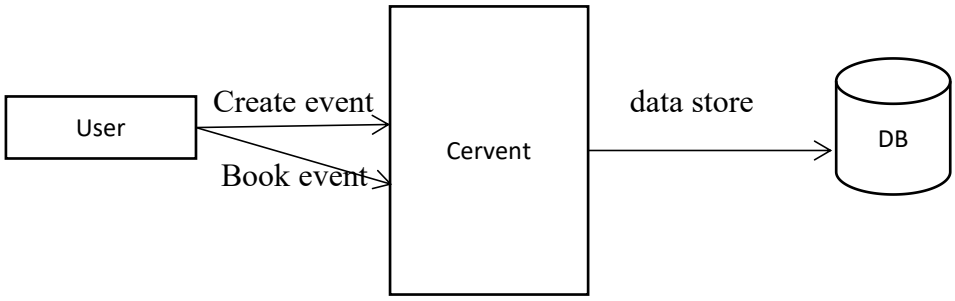


Figure : Cervent WorkFlow.

5.2 Major Module

Major modules of Cervent are explained in this section. There are following major modules of cervent.

5.2.1 User Module

User module allows system administrator to set up back-end of the system and perform basic system configuration. User module is one of the core module Whose main purpose is to create/book event.

A. Create Module

The create module allows user to create event. The create event module is implemented in *createEvent.jsx* file. Other report is implemented by creating a section named *Dashboard* in a *home.jsx* file. Dashboard contains the number of event available and details.

B. Manage Module

Manage module allowsuser to update his/her profile. Manage user is implemented in a file named *updateProfile.jsx*.

5.2.2 Search Module

To allow User to efficiently navigate through the all available event, a search module is implemented. Character based search algorithm is used to find the event based on the input supplied by the user

The simple steps of search module are mentioned below:

1. Start.

2. Input letter or word (n).

3. If n==char(Name) goto 4 else goto 5.

4. Display Full_Details.

5. Display No matching records found.

6. End.

.

5.3 Implementation Tools

1. **Visual Code Editor:** All the project development code will be written using VS code editor as will provide lots of features and extension which make coding easier and faster.

2. **React JS:** All the frontend development will be done in React JS as it is javascript library for creating user interface and it also provides the single page application which will be used in this project.

3. **MongoDB Atlas:** Cloud database of Mongo DB will be used in this project as we are implementing javascript in this project and MongoDB is very suitable database for the javascript developer.

4. **Node JS:** As we are using javascript throughout the project and node will provide that environment.

5. Express JS: Express JS will be used to make connection with database, creating API, and many more in this project.

CHAPTER 6

TESTING

All functional modules of the system are tested. The result of the different phases of testing are evaluated and then compared with the expected output. Errors were uncovered, debugged and corrected. Several test cases are designed, and executed during this stage. Testing is performed in three phases, which are described in the following sub-sections.

6.1 Unit Testing

Each of the modules of the system was tested after its development. Sample data were given in order to test the modules and sub-modules wherever required.

6.2 Integration Testing

The modules and sub-modules were merged and tested. Add event, update profile, book event in the module.

6.3 System Testing

System testing is conducted on a complete, integrated system to evaluate the system with its specified requirements. Test data are retrieved, and based on those data system is tested.

6.4 Test Cases

Major test cases designed for the cervent system are listed in this section

6.4.1 Test Case For User Sign-In module

Table 6.1: Test case for user

Use Case ID	1
Description	Check Sign-In for the User.
Inputs	User inputs valid email and Password.
Steps	1. Run Project 2. Go to Sign-In page 3. Enter the email and password.
Expected Result	If email and password are correct, user will be able to login into the dashboard otherwise login failed.
Actual Result	As expected.
Pass/Fail	Pass

Table 6.2: Test case for user sign-in with incorrect email

Use Case ID	2
Description	Check Sign-In for the User.
Inputs	User inputs wrong Email, but correct Password.
Steps	1. Run Project 2. Go to Sign-In page 3. Enter the email, and password.
Expected Result	Should display “Invaild”.
Actual Result	As expected.
Pass/Fail	Pass

6.4.2 Test Case For User Creating Event module

Table 6.3: Test case for user to create event

Use Case ID	3
Description	Check user to create event
Inputs	User create a new event
Steps	1. User Sign-In 2. Goto create event 3. Enter the all details
Expected Result	Should display “Event create successfully”.
Actual Result	As expected.
Pass/Fail	Pass

Table 6.4: Test case for buying tickets

Use Case ID	4
Description	Check buy tickets
Inputs	User can buy a tickets for event
Steps	1. User Sign-In. 2. Goto event and click enroll. 3. Buy tickets.
Expected Result	Should display “Ticket is bought”.
Actual Result	As expected.
Pass/Fail	Pass

CHAPTER 7

CONCLUSION AND FUTURE ENHANCEMENT

This project is still unfinished because it will require technical work and ongoing maintenance. Updates, new functions, and features, and improve vulnerabilities and overcome bugs are all part of the ongoing process. In future, there will be a lot of work to be done on this effort. The initial phase in this project is to deploy on a hosting server from which the user of the application can use the application remotely from anywhere using internet. Another step is to develop some additional features for the application and maintain regularly to keep the program up to date.

However, it will take more developers with strong knowledge and experience on real world projects, such as database administrators, front end developers, backend developers, project managers, security engineers, investors, and so on, to finish this project with some advanced features as well as maintain and fix bugs in a timely manner.

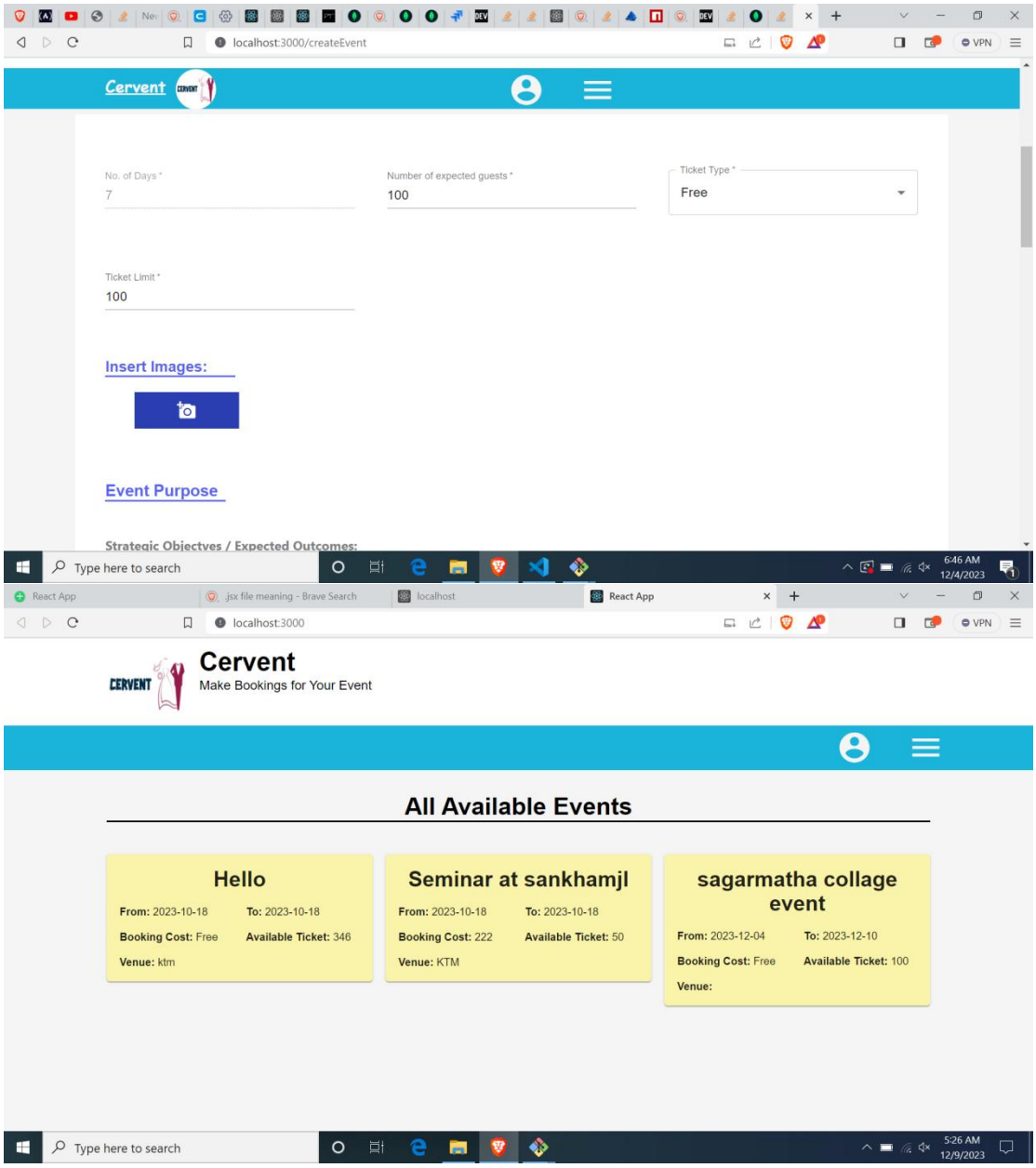
REFERENCES

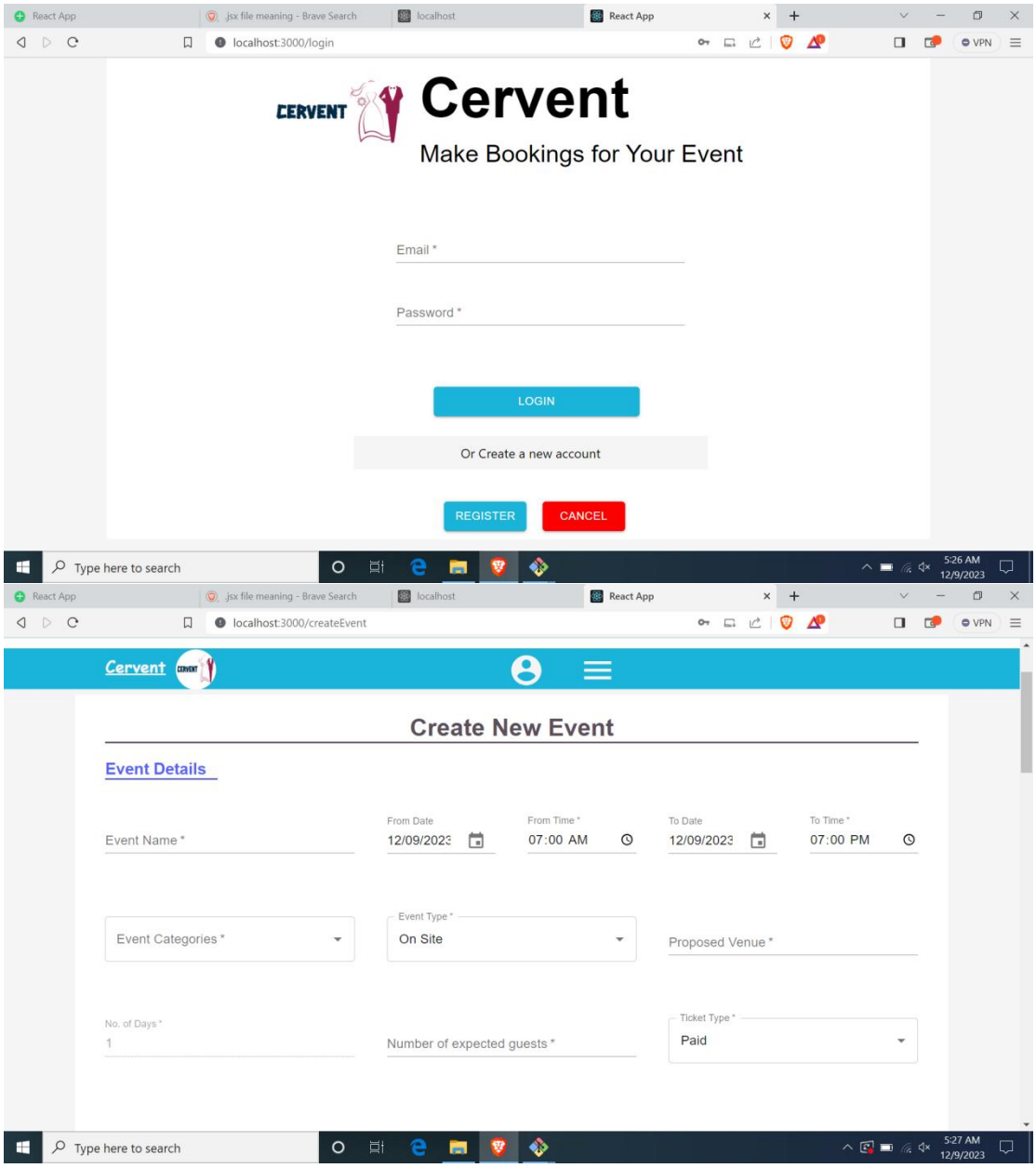
The Week Bureau, 2018. *The basics of event planning.* [Online]
Available at: https://myrepublica.nagariknetwork.com/news/the-basics-of-event planning/

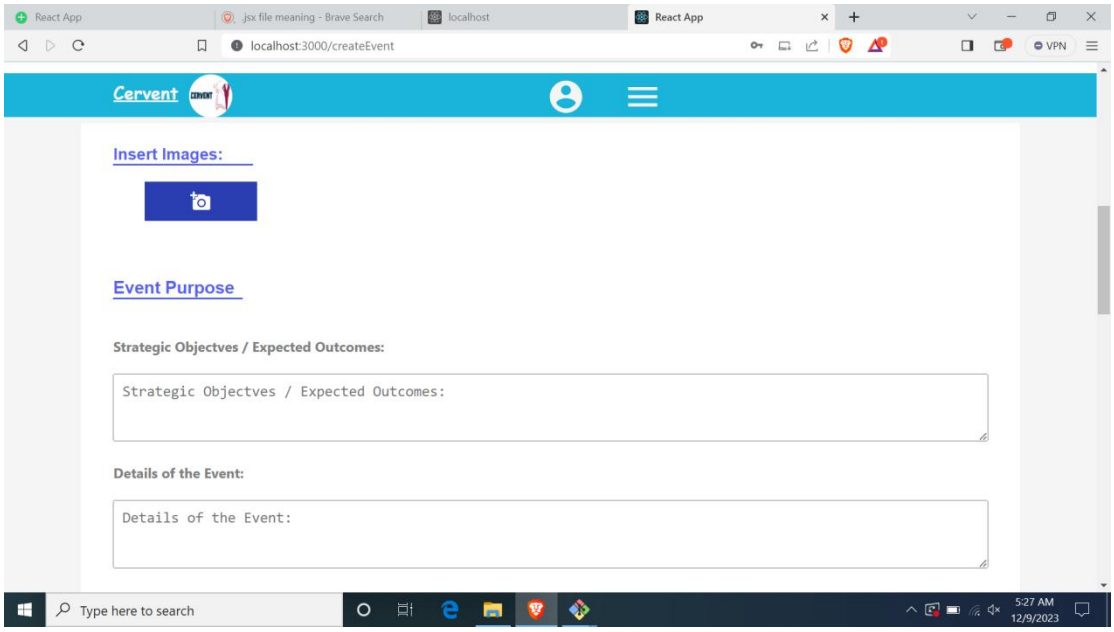
welcomeeventmanagement, 2015. *Who Are We?.* [Online]
Available at: https://welcomeeventmanagement.com/about-us/

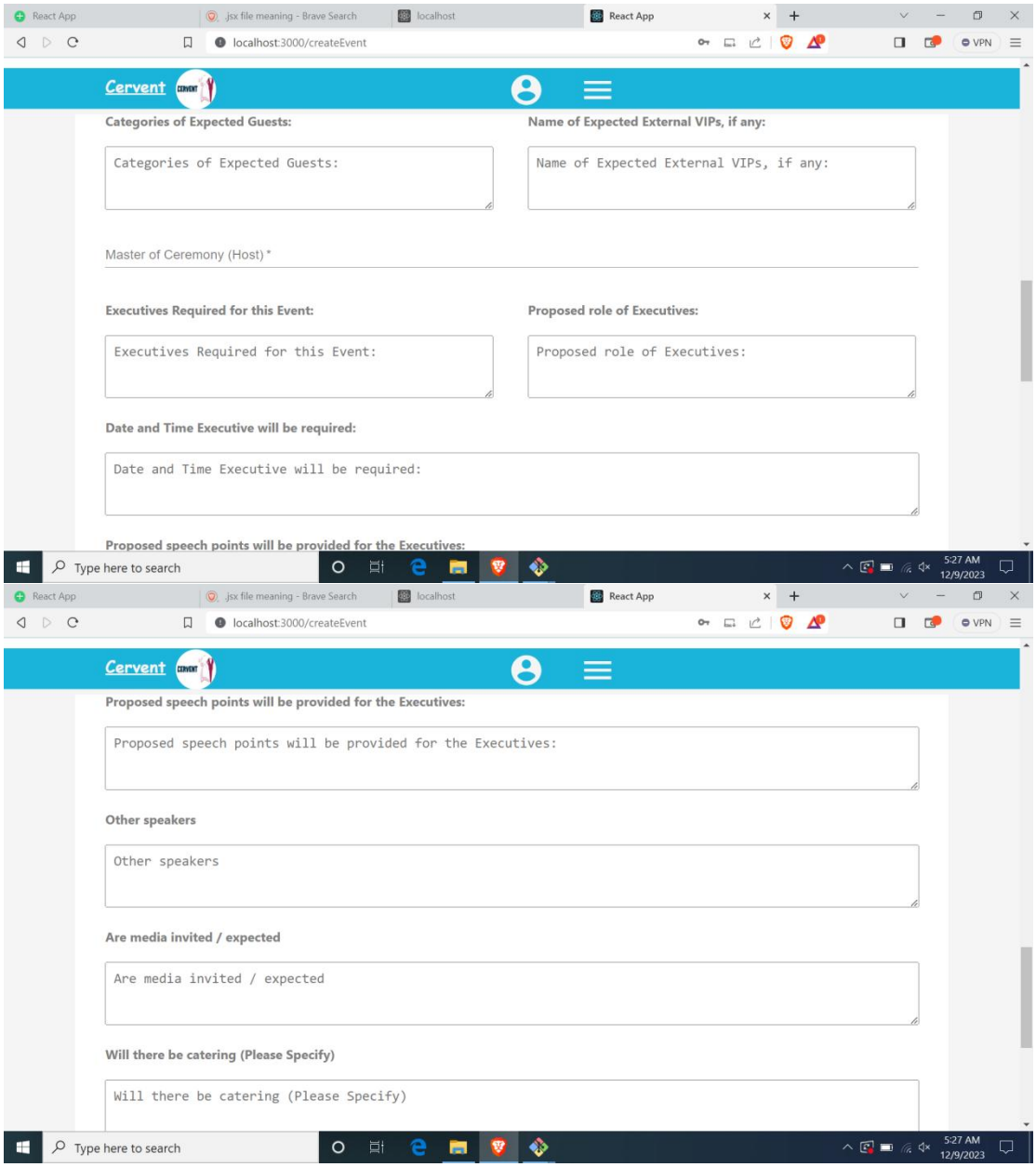
EDUCBA, 2020. WaterFall model. [Online]
Available at: https://www.educba.com/waterfall-method/

APPENDIX


localhost:3000/createEvent
Cervent
No. of Days *
7
Number of expected guests *
100
Ticket Type *
Free
Ticket Limit *
100
Insert Images:
Event Purpose
Strategic Objectves / Expected Outcomes:
Type here to search
6:46 AM
12/4/2023
React App
jsx file meaning - Brave Search
localhost
React App
localhost:3000
Cervent
Make Bookings for Your Event
All Available Events
Hello
From: 2023-10-18
To: 2023-10-18
Booking Cost: Free
Available Ticket: 346
Venue: ktm
Seminar at sankhamjl
From: 2023-10-18
To: 2023-10-18
Booking Cost: 222
Available Ticket: 50
Venue: KTM
sagarmatha collage event
From: 2023-12-04
To: 2023-12-10
Booking Cost: Free
Available Ticket: 100
Venue:
Type here to search
5:26 AM
12/9/2023


React App
.jsx file meaning - Brave Search
localhost
React App
localhost:3000/login
VPN
CERVENT
Cervent
Make Bookings for Your Event
Email *
Password *
LOGIN
Or Create a new account
REGISTER
CANCEL
Type here to search
5:26 AM
12/9/2023
localhost:3000/createEvent
Cervent
Create New Event
Event Details
Event Name *
From Date
12/09/2023
From Time *
07:00 AM
To Date
12/09/2023
To Time *
07:00 PM
Event Categories *
Event Type *
On Site
Proposed Venue *
No. of Days *
1
Number of expected guests *
Ticket Type *
Paid
5:27 AM
12/9/2023


React App
.jsx file meaning - Brave Search
localhost
React App
localhost:3000/createEvent
VPN
Cervent
Insert Images:
Event Purpose
Strategic Objectves / Expected Outcomes:
Strategic Objectves / Expected Outcomes:
Details of the Event:
Details of the Event:
Type here to search
5:27 AM
12/9/2023


React App
.jsx file meaning - Brave Search
localhost
React App
localhost:3000/createEvent
VPN
Cervent
Categories of Expected Guests:
Categories of Expected Guests:
Name of Expected External VIPs, if any:
Name of Expected External VIPs, if any:
Master of Ceremony (Host) *
Executives Required for this Event:
Executives Required for this Event:
Proposed role of Executives:
Proposed role of Executives:
Date and Time Executive will be required:
Date and Time Executive will be required:
Proposed speech points will be provided for the Executives:
Type here to search
5:27 AM
12/9/2023
React App
.jsx file meaning - Brave Search
localhost
React App
localhost:3000/createEvent
VPN
Cervent
Proposed speech points will be provided for the Executives:
Proposed speech points will be provided for the Executives:
Other speakers
Other speakers
Are media invited / expected
Are media invited / expected
Will there be catering (Please Specify)
Will there be catering (Please Specify)
Type here to search
5:27 AM
12/9/2023

Sagarmatha College of Science and Technology
Sanepa, Lalitpur
(T.U. Affiliate)

Supervisor Name : Er.Bishnu Khadka

PROJECT LOGBOOK

Date	Meteting Discussion	Signature	Remarks
April10, 2023	Team formation and discussion about topic.		
April22, 2023	Proposal submission		
May 20, 2023	Discussion related to project topics with supervisor		
May 26, 2023	Discussion regarding requirement of project.		
Jun 1, 2023	Data review		
Jun 10, 2023	Development assessment		
June 23, 2023	Discussion related to project and suggestion		
July 26, 2023	Add features to the project		
Sept 3, 2023	Report submission		