

# **WEB APPLICATION FOR ANNUAL EVENTS WITH INTERACTIVE CALENDAR**

A PROJECT REPORT

*Submitted by*

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**17-PCA-009**

*in partial fulfilment for the award of the degree of*

**MASTER OF COMPUTER APPLICATIONS (MCA)**

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## **BONAFIDE CERTIFICATE**

This is to certify that the project work titled '**WEB APPLICATION FOR ANNUAL EVENTS WITH INTERACTIVE CALENDAR**' is being submitted to the Department of Computer Applications (MCA), Loyola College (Autonomous), Chennai-34 by **DIVIJHA D 17-PCA-009** for the partial fulfilment for the award of degree of **MASTER OF COMPUTER APPLICATIONS** is a Bonafide record of work carried out by her, under my guidance and supervision.

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## **ABSTRACT**

The project is to create a web application for quick and fast calendar to the user. The advantage of interactive calendar is easily accessed from both the ios and android devices, and also it will remind the scheduled time of the events to the users. It also help to set up reminders on mobile phones to prevent from missing important events. This is just one more advantage of an online calendar. Paper calendars can't compete with this great feature. To make it even more convenient you can set up the reminders in different time increments allowing the users in ample time to get scheduled events on time. Also, it is a client-side application. The main purpose of the project is about a quick and fast calendar for the particular event. It is designed to offer an easy, fast way to access upcoming events. It provides users with the necessary information in an easy to understand manner without being overwhelming. It also provides mapping location to the users and contains the previous year's records of events and conferences in the application.

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## LIST OF ABBREVIATIONS

ABBREVIATIONS	EXPANSION/MEANING
<b>IDE</b>	Integrated Development Environment
<b>HTML</b>	Hyper Text Mark-Up Language
<b>CSS</b>	Cascading Style Sheet
<b>SDLC</b>	Software Development Life Cycle
<b>CMS</b>	Content Management System
<b>BRS</b>	Business Requirement Specification
<b>SRS</b>	System Requirement Specification
<b>URL</b>	Uniform Resource Locator
<b>SQL</b>	Structured Query Language
<b>HTTP</b>	Hypertext Transfer Protocol

# **CHAPTER 1**

## **THE PROBLEM**

### **1.0 Introduction**

Analysis Phase is about to analyse the present solution, information about the description of the problem and description of proposed system. Description contains overall system architecture of the system in technical perspective. After analysis phase the developer gets a clear outer view of the solution for the development and objective that should be achieved with the proposed system.

### **1.1 Description of the Problem**

The project is to create a web application for quick and fast calendar to the user. The advantage of interactive calendar is easily accessed from both the ios and android devices, and also it will remind the scheduled time of the events to the users. It also help to set up reminders on mobile phones to prevent from missing important events. This is just one more advantage of an online calendar. Paper calendars can't compete with this great feature. To make it even more convenient you can set up the reminders in different time increments allowing the users in ample time to get scheduled events on time. Also, it is a client-side application. The main purpose of the project is about a quick and fast calendar for the particular event. It is designed to offer an easy, fast way to access upcoming events. It provides users with the necessary information in an easy to understand manner without being overwhelming. It also provides mapping location to the users and contains the previous year's records of events and conferences in the application.

#### **1.1.1 About the Organization**

Mediamax Seeded in 2002 as a design company and has panned across brand identity, print, website, digital, environment and packaging designs. Concept-driven designs, and understanding consumer behavior and experience, has rewarded clients as business partners. Designing is engaging and fun for the spirited soul. And working with and for like minded people can never be more fun. Mediamax value aspiration, and in giving wings to your thoughts, it reach their heights too. And that way, Mediamax partner with clients and build mutual respect.

### 1.1.2 Services

Mediamax helps to create identity in the digital landscape across all web, print and mobile platforms. Its passionate creation of brands leave their mark well etched in the frame of time.

#### Branding

#### Media

Mediamax create or recreate a far-reaching brand that speaks for the product and its people. It also create a compelling story for the discerning consumer.

#### Advertising

Creations are meant for the audience. Mediamax helps to reach the consumers through the versatile print designs and advertisements.

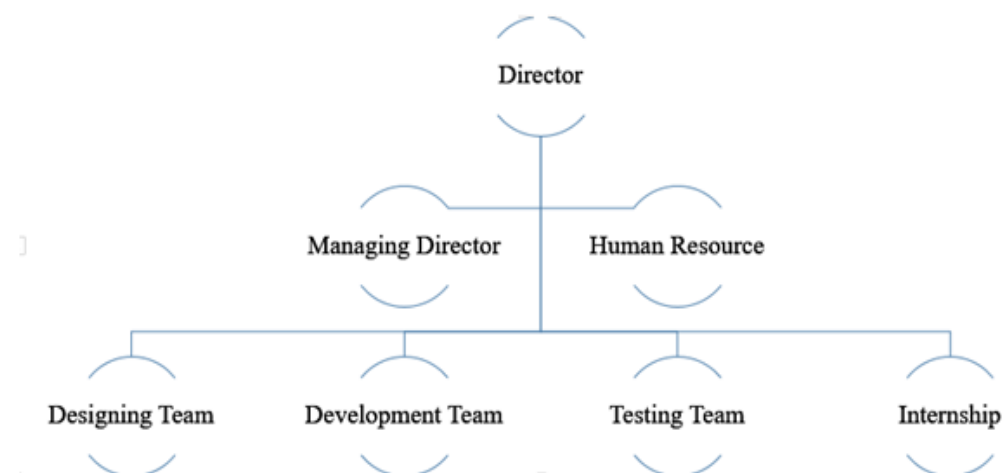
#### Packaging

Presentation and packaging are something, why miss on that? It offer irresistible packaging solutions to hit the market with.

#### Web designing

Mediamax craft technologically and aesthetically pleasing websites. From design overhaul to automating and planning user experience, it create magic.

### 1.1.3 Organization Chart



### **1.1.4 Student Project Assignment and Responsibility**

As an Intern, my role in the organization is to understand the actual problem and help the developers in designing, coding and testing. The project which is assigned to me is **Web Application for annual events with interactive calendar.**

### **1.2 Objectives**

Interactive Calendar based applications provides to recure the current events and constantly evolve to deliver more value to the customers. It includes time tracking, location mapping and event conference scheduling. This application integrate with the interactive calendar for even greater productivity.

The following six services were used to develop the Web Application:

- Customers will register with the craved events.
- To know the status of the events.
- Remind the customers about the events through the notification.
- Know the details of the previous events.
- Update the upcoming events.
- Schedule clock will remind the days, hours and seconds of the events.

### **1.3 Description of Existing System**

The below details illustrates about the existing problem solution of the project.

#### **1.3.1 EventOrg-Event Management App for Corporate Events**

The eventorg app makes the process easy and flexible for all event organizers. No development or adjustments are required. Advertise the interactive and convenient experience that the app will provide during the registration process and in emails. If a user's are a Green Panther, then an app can add value for the event by ensuring a minimal impact on the environment. Users could avoid chopping down acres and acres of rainforest to print schedules. Eventer allows organizations to publish a single app that hosts multiple events simultaneously. Users can customize apps' background, header, themes and icons. These apps are unique in their design and specific in their branding. Eventer platform is suitable for Trade Shows, Conferences, Sporting Events, Film Festivals, Association Meetings, and more.

Users can develop more engaging and more personalized user experience for any type of events. The organizations can use the intuitive modules of Eventer and pick the features that suits the event. Through a wide set of flexible modules and functionality, event planners can have everything related to their event. Eventer's CMS is easy to use and painless to handle. Changes are easy to make and update in the app within moments.

### **1.3.2 All Event Organizer**

Tracking an event was never this easy. All Events Organizer app is built for the organizers and wants to grow their event reach and manage it easily. The valued event organizers are now using it to keep a record of every attendee and manage ticketing for each just at the touch of a screen. All Events Organizer App lets clients to manage the different organizer profiles, track total event page visits, no. of attendees, ticket sold and revenue generated. Drive more traffic to an event with Promotional Plans right from the Application. Keep a record for each and every attendee that shows at the event. Search by ticket id or scan via QR code that is sent to the attendees when people register. Generate Leads for the upcoming event with the help of the Organizer App which let users differentiate between an impression. Manage Check-ins during the event to differentiate between those events which actually attended an event and those who couldn't make it to the event. View the event details right from the All Events Organizer App to verify if all the details about the event is correctly shown. Manage different organizer profile you have created for different types of events. Users can also share each one of them with the contacts on various platforms. Promote an event at the touch of a button with the various promotional plans to increase visibility and track the results of that promoted event from the event insights. Manage all the Event Ticketing and Management solutions like verifying ticket, check-in, Pay at Venue, mail/call a user in case of payment not done, etc.

### **1.3.3 Eventbrite**

Discover upcoming events near the users and get personalized recommendations. Stay up on the latest for popular events like concerts, festivals, and yoga classes, holiday events on New Year's Eve or Halloween and networking events. Find what's new and hot nearby at a wide variety of venues. Stay in the know on what's going on today, this week, this weekend, whenever, get personalized event recons for whatever you're into. Share events with the crew and vice versa. Add upcoming events to the calendar. Buy tickets and check out easily on the

mobile phone. Store your credit or debit cards for fast, secure checkout. View event details so the users can get there on time and own it. Check-in with the app, ditch old school paper tix.

## **1.4 Evaluation of Existing System**

The below details illustrates about the evaluation of existing system

### **1.4.1 Eventorg**

Eventorg delivers the agenda and all relevant information to the attendees. EventOrg's extensive Agenda gives attendees access to the latest event schedule at their fingertips. Bid farewell to the outdated, printed event schedules with EventOrg.

#### **Advantages**

- **Digital Badge** - Control access to users for event by generating QR code and scanning at the entry. This ensures faster check-in saving your time and money.
- **Chat** - Connect with attendees and instrumental in enhancing the experience of attendees.
- **Speakers** - Showcase the speakers and their profiles through EventOrg and get in touch with them via LinkedIn. Be familiarised and track the sessions assigned to the speakers with EventOrg.
- **News Feed** - Be tuned to the interesting and the latest news and announcements on the events with EventOrg.
- **Social Wall** - Allow the attendees to share photos within the app. Integrating the social media feeds in the event app and let client attendees follow what will be happening on social media.
- **LivePolls** - Increase attendee engagement at events by asking the users honest opinions and let the users vote instantly from any device.

#### **Disadvantages**

- Highly unorganized sector
- Immature processes & practices followed by vendors & suppliers
- Weak supply chain

### **1.4.2 All Event Organizer**

All Event organizer is the application of project management to the creation and development of large-scale events such as festivals, conferences, ceremonies, weddings, formal parties, concerts, or conventions. It involves studying the brand, identifying its target audience, devising the event concept, and coordinating the technical aspects before actually launching the event.

#### **Advantages**

- Pay sufficient attention to planning
- Draft the budget taking into account unforeseeable situations
- Tell the audience about the event
- Pay attention to service

#### **Disadvantages**

- 63% cited poor performance or speed.
- 59% cited security concerns.

### **1.4.3 Eventbrite**

Eventbrite enables anyone to create, promote, and sell tickets to any event imaginable, while also helping people discover and share events that match their passion.

#### **Advantages**

- Find upcoming events for this week and weekend
- See which events users friends are going to
- Register for and get tickets to events
- Store your credit or debit cards for fast, easy purchasing
- View event details, including maps and directions
- Add the Eventbrite tickets to Passbook
- Easily share events with the friends
- Get into events with just a phone - no paper tickets required!

#### **Disadvantages**

- Unorganized sector
- Security issues



## **1.5 Description of Proposed System**

The below details illustrates about the description of proposed system.

### **1.5.1 EventMobi**

The possible solution is to develop the project as mobile application using C#. The developed mobile application can be uploaded in the play store for the users. The notification will be registered in the mobile's calendar itself. Both android and ios can be used. The help desk for the users can also be used in the mobile itself.

### **1.5.2 Eventxttra**

The possible solution is to hold relatively static information such as the schedule, interactive calendar and general FAQs. Easily share events with the user's business associates and clients. Promote the brand via a custom event app icon, top navigation bar, splash entry image, menu background and app background. Live content updates make last minute changes immediately available on the app.

## **1.6 Evaluation of Proposed System**

The below details illustrates about the evaluation of proposed system.

### **1.6.1 EventMobi**

Data once stored cannot be tampered, updated or deleted. History of changes to the data is maintained and any previous updating to the data can be easily traced by the tracker code.

#### **Advantages**

- Easy to access from any location.
- Application is user friendly.
- C# is more type safe
- Good support for distributed system.
- Ease-to-development, the rich class library makes many functions easy to be implemented.

#### **Disadvantages**

- It has only limited storage.
- It cannot do low level stuff like interfacing directly with hardware through drivers and firmware.

- It doesn't come with a standalone compiler that can directly interpret the higher levels of the language.

### **1.6.2 EventXtra**

To make it even more convenient for the user in setting up the reminders in different time increments allowing clients in ample time to get to scheduled events on time. Also, it is a client-side application. The main purpose of the project is to quick and fast calendar for the particular event. It is designed to offer an easy, fastest way to access upcoming events.

#### **Advantages**

- Scheduling posts in advance so users can focus on the event
- Reporting on performance results to increase event marketing ROI
- It includes location mapping so it is easy to trackable the location
- Make sure the latest news, events and interactions stay on top with a dynamic activity feed
- Promote your event amongst your customer based on their interests
- Seamlessly integrate the event data into the app from any database or registration system
- Secure your event app with login credentials so that only approved attendees can access it
- Send reminders, updates and survey links to attendees as push notifications
- It gives the users attendees a smart, simple and easy-to-use tool for building their own schedules
- Project the event content on any screen in real time
- Time and location based systems help reach out large audience base in targeted manner
- Send urgent messages as notifications and broadcast event news
- An intuitive schedule supports multiple tracks, notes and personalized agendas.

#### **Disadvantages**

- Security issues
- It has only limited access

## **1.7 Conclusion**

In this chapter, the background details of the company, organization chart and a briefDescription of the problem, objectives, description and evaluation of the existing system andProposed system have been discussed. The other possible ways to solve the problem andimportance of proposed system comparing to other possible solution is also discussed. Thisleads to the design phase which is briefly explained in the next phase.

## CHAPTER 2

### DESIGN

#### 2.0 Introduction

After analysis of the system, the next phase is system design. The system needs are to design, all the objectives that are identified in the previous phase. The objectives play a crucial role in the design phase. It provides a milestone to understand the architecture of the project.

#### 2.1 Overall Plan of the project

PHASE	NAME	DESCRIPTION	START DATE	END DATE
Phase I	Analysis	Understanding the problem, existing solution and defining the proposed Solution	27.01.2020	07-02-2020
Phase II	Design	Designing the project	10-02-2020	21-02-2020
Phase III	Implementation	Coding and Implementing	24-02-2020	08-03-2020
Phase IV	Testing	Testing the system	09-03-2020	13-03-2020
Phase V	Documentation	Preparing the document	14-03-2020	18-03-2020

*Table 2.1 overall plan*

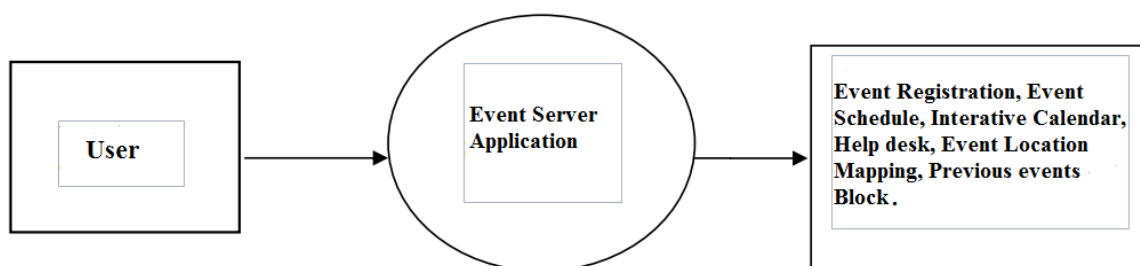
## 2.2 Description of the method of solution

The existing system does not contain the calendar notification for the event application with live location mapping for the clear understanding of the users. Previous event records were not available in the existing event applications. The proposed solution contains the interactive calendar reminder for the users and location tracking for the user understanding. It also includes the last five years event records of the brand OTTO.

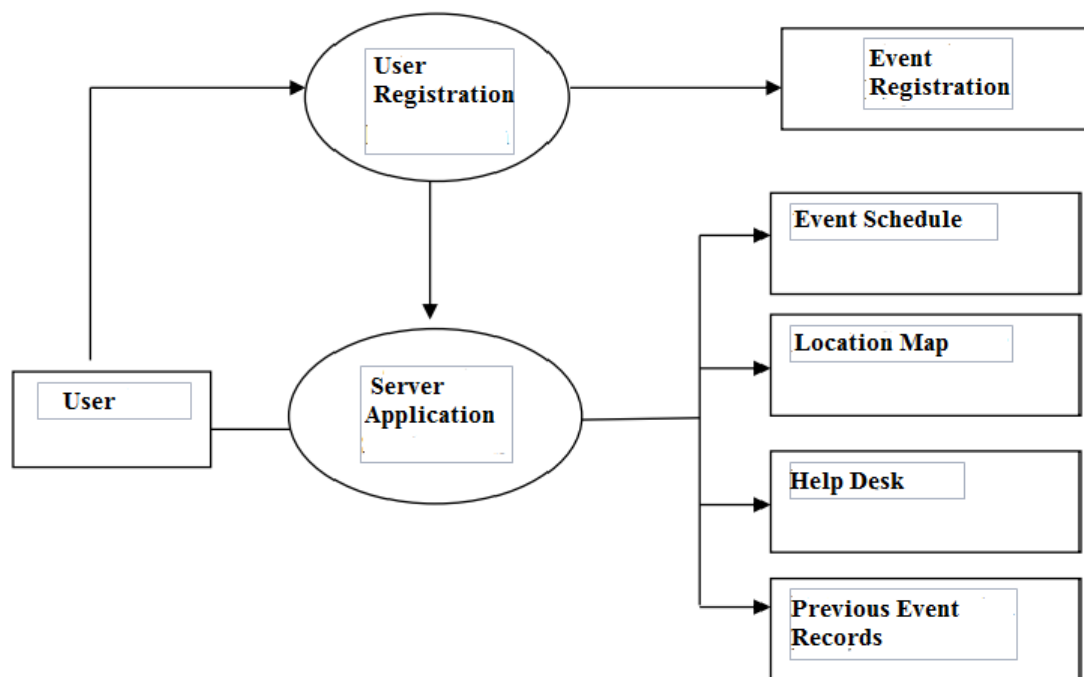
### 2.2.1 Data flow diagram

A Data Flow Diagram(DFD) is a graphical tool used to describe and analyse movement of data through system. It is a graphical representation of the “flow” of data through a computer system or a data or it looks at how data flows through a system. These are central tool and basic form which the other components are developed. The transformation of data from input to output, through processed may be described logically and independently of physical components associated with the system. The development of DFD is done at several levels. The flow diagram describes the boxes that describe computations, decisions, interactions & loops. It is important to keep its mind that the flow diagram are not flowcharts and should not include control elements.

#### DFD Level 0



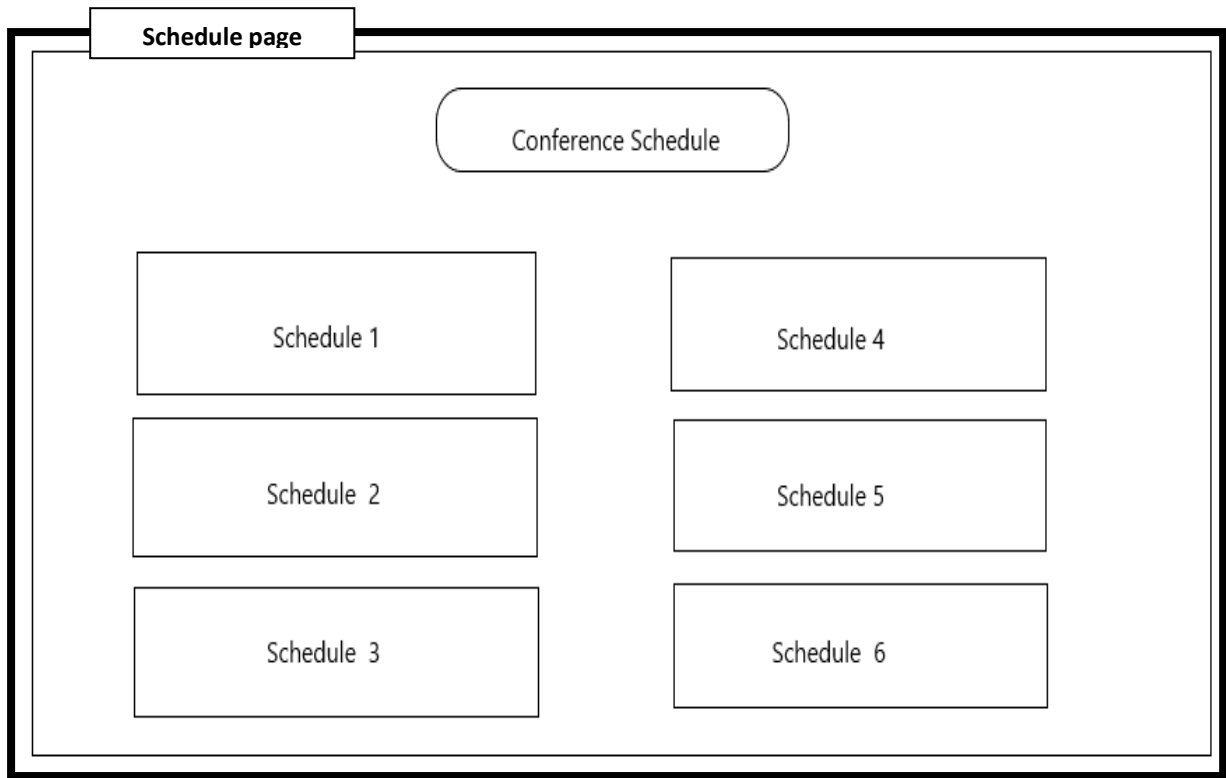
## DFD Level 1



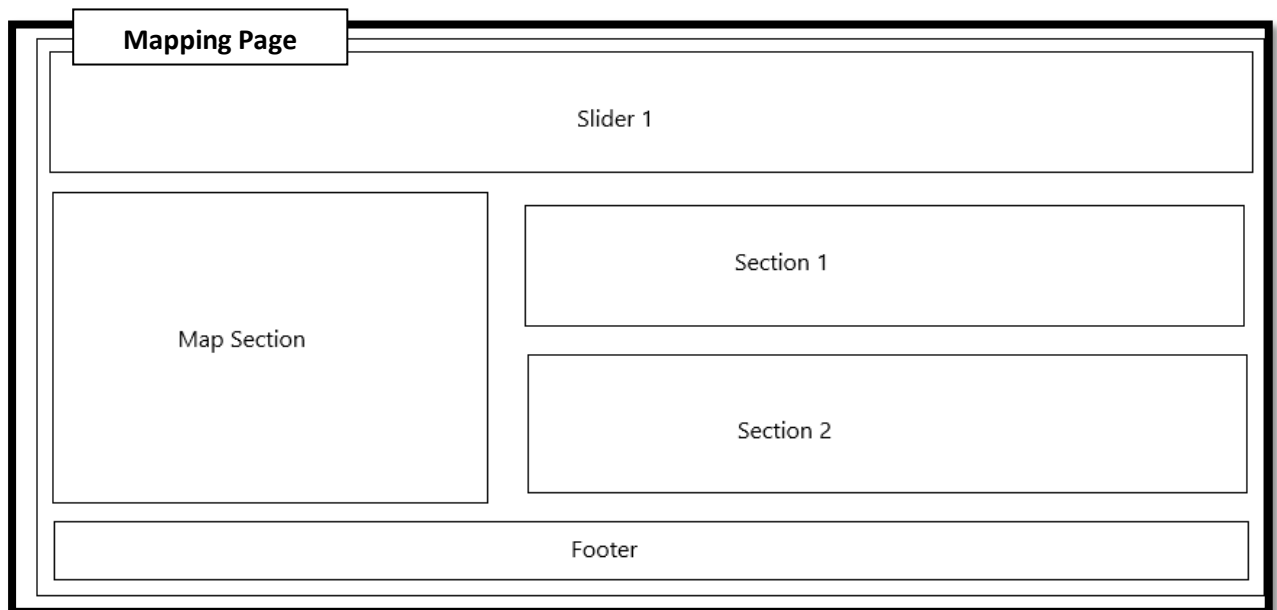
### 2.2.2 Pseudo form



Figure2.1 Homepage



*Figure2.2 Schedule Page*



*Figure2.3 Mapping Page*

Form Generation

Slider 1

Add to the Calendar

Name

Mail Id

Phone Number

Desired Event

Submit

Figure2.4 Form Generation

Database Records

Data Records

2016

2017

2018

2019

Record 1

Record 2

Record 3

Record 4

Figure2.6 Database Records



*Figure2.6 Help Desk*

### 2.2.3 Table Design

**Table:** events\_registration

COLUMN NAME	DATA TYPE	CONSTRAINTS
Name	Varchar(100)	Not Null
Email	Varchar(50)	Not Null
Events	Varchar(1)	Not Null
Place	Varchar(15)	Not Null

*Table2.2 events\_registration*

**Table:** help\_desk

COLUMN NAME	DATA TYPE	CONSTRAINTS
Name	Varchar(100)	Not Null
Place	Varchar(50)	Not Null
Schedule event	Varchar(50)	Not Null
Email	Varchar(50)	Not Null

password	Varchar(50)	Not Null
date	Date	Not Null
query	Varchar(50)	Not Null

*Table 2.3 help\_desk*

## 2.3 Hardware Requirements

The Hardware requirements many serve as the basis for a contract for the implementation of the system and should, therefore, be a complete and consistent specification of the whole system.

### Component Configuration

Component	Configuration
Monitor	Dell- Inspiron 15
Processor	I5, Intel Core2.50 GHZ
RAM	4 GB
Hard Disk	1 TB
System Type	64-bit operating system

*Table 2.4 Hardware Requirements*

## 2.4 Software Requirements

Software requirement includes both definition and specification of requirements. It is a set of what the system should do rather than how it should do it. The software requirements provide a basis for creating the software requirements specification. It is useful in estimating cost, planning team activities, performing tasks throughout the development activity.

Specifications	Functional Requirements
Database	PostgreSQL
Programming Language	PHP
Operating System	Windows 10
Front End	HTML5, CSS3, JavaScript, Bootstrap and jQuery

*Table 2.5 Software Requirements*

## **Front End HTML**

### **2.4.1 Front-End**

A front end is the graphical user interface of a computer that makes it easier to use.

#### **Hypertext Mark-up Language**

HTML is the standard mark-up language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document. HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by tags, written using angle brackets. Tags such as `<img />` and `<input />` directly introduce content into the page. Other tags such as `<p>` surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page. HTML can embed programs written in a scripting language such as JavaScript, which affects the behaviour and content of web pages. Inclusion of CSS defines the look and layout of content. The World Wide Web Consortium (W3C), former maintainer of

the HTML and current maintainer of the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.

### **2.4.3 PHP**

PHP stands for Hypertext Pre processor (no, the acronym doesn't follow the name). It's an open source, server-side, scripting language used for the development of web applications. By scripting language, we mean a program that is script-based (lines of code) written for the automation of tasks. PHP can be embedded in HTML, and it's well suited for web development and the creation of dynamic web pages for web applications, e-commerce applications, and database applications. It's considered a friendly language with abilities to easily connect with MySQL, Oracle, and other databases. PHP scripts can be used on most of the well-known operating systems like Linux, UNIX, Solaris, Microsoft Windows, MAC OS and many others. It also supports most web servers including Apache and IIS. Using PHP affords web developers the freedom to choose their operating system and web server.

### **Advantages of PHP**

#### **Cross-Platform**

PHP is, an application can be run on various platforms. The most important advantage of PHP is the developer need not have to worry about the operating system the user is working on. As the PHP code runs properly and smoothly on all operating systems. Furthermore, the server-side scripting language or PHP hosting service providers can easily be found.

#### **Ease of use**

Any individuals who are new to programming can easily learn to use them within a short duration of time. The syntax for programming in the hypertext pre-processor is quite similar to the C programming language. So the individual who is familiar with C can easily create PHP website scripts.

#### **Speed**

A very vital side of web development is the speed. Considering the very important fact, some individuals still struggle with the challenge of web data speed. A quick loading website is always appreciated by many individuals. Furthermore, individuals typically like quick loading

web sites compared to slower loading ones. Folks use PHP because of the important fact that it's quick.

### **Open source and Powerful library support**

Another advantage to using the PHP hyper text Preprocessor is it's developed and maintained by a cluster of PHP developers, this help in making a support community, extensive extension library. PHP additionally has immense collection functional modules and a few of the modules available in PHP include Graphics and PDF amongst others.

### **Stable**

PHP has been in existence for about twenty-two years. Over this era, many developers have worked on the application to enhance the usage of the application. Lots of bugs are discovered over the years and therefore the bugs are fixed quickly by the team of developers. Based on this, the programming language is currently very stable.

### **Disadvantages of PHP**

#### **Weak type**

By the way, the PHP preprocessor hypertext language was created, it'll be tough to use it to program large applications. Since the programming language isn't extremely modular, large applications created out of the programming language are tough to keep up. Furthermore, it's so an excellent language for web site scripting and developing small applications.

### **2.4.4 Back end**

#### **Postgresql**

PostgreSQL is a powerful, open source object-relational database system that uses and extends the SQL language combined with many features that safely store and scale the most complicated data workloads. The origins of PostgreSQL date back to 1986 as part of the POSTGRES project at the University of California at Berkeley and has more than 30 years of active development on the core platform. PostgreSQL has earned a strong reputation for its proven architecture, reliability, data integrity, robust feature set, extensibility, and the dedication of the open source community behind the software to consistently deliver performant and innovative solutions. PostgreSQL runs on all major operating systems, has

been ACID-compliant since 2001, and has powerful add-ons such as the popular PostGIS geospatial database extender. It is no surprise that PostgreSQL has become the open source relational database of choice for many people and organisations. Getting started with using PostgreSQL has never been easier - pick a project you want to build, and let PostgreSQL safely and robustly store your data.

### **Why use PostgreSQL?**

PostgreSQL comes with many features aimed to help developers build applications, administrators to protect data integrity and build fault-tolerant environments, and help you manage your data no matter how big or small the dataset. In addition to being free and open source, PostgreSQL is highly extensible. For example, you can define your own data types, build out custom functions, and even write code from different programming languages without recompiling your database!

PostgreSQL tries to conform with the SQL standard where such conformance does not contradict traditional features or could lead to poor architectural decisions. Many of the features required by the SQL standard are supported, though sometimes with slightly differing syntax or function. Further moves towards conformance can be expected over time. As of the version 12 release in October 2019, PostgreSQL conforms to at least 160 of the 179 mandatory features for SQL: 2016 Core conformance. As of this writing, no relational database meets full conformance with this standard. Below is an exhaustive list of various features found in PostgreSQL, with more being added in every major release.

### **Data Types**

- Primitives: Integer, Numeric, String, Boolean
- Structured: Date/Time, Array, Range, UUID
- Document: XML, Key-value (Hstore)
- Geometry: Point, Line, Circle, Polygon
- Customizations: Composite, Custom Types

### **Data Integrity**

- UNIQUE, NOT NULL
- Primary Keys
- Foreign Keys
- Exclusion Constraints

- Explicit Locks, Advisory Locks
- Concurrency, Performance
- Indexing: B-tree, Multicolumn, Expressions, Partial
- Advanced Indexing: GiST, SP-Gist, KNN Gist, GIN, BRIN, Covering indexes, Bloom filters
- Sophisticated query planner / optimizer, index-only scans, multicolumn statistics
- Transactions, Nested Transactions (via savepoints)
- Multi-Version concurrency Control (MVCC)
- Parallelization of read queries and building B-tree indexes
- Table partitioning
- All transaction isolation levels defined in the SQL standard, including
- Serializable
- Just-in-time (JIT) compilation of expressions

### **Reliability, Disaster Recovery**

- Write-ahead Logging (WAL)
- Replication: Asynchronous, Synchronous, Logical
- Point-in-time-recovery (PITR), active standbys
- Table spaces

### **Security**

- Authentication: GSSAPI, SSPI, LDAP, SCRAM-SHA-256, Certificate.
- Robust access-control system
- Column and row-level security
- Multi-factor authentication with certificates and an additional method

### **Extensibility**

- Stored functions and procedures
- Procedural Languages: PL/PGSQL, Perl, Python (and many more)
- SQL/JSON path expressions

### **SQL interface**

- Customizable storage interface for tables
- Many extensions that provide additional functionality, including PostGIS

### **Internationalisation, Text Search**

- Support for international character sets, e.g. through ICU collations
- Case-insensitive and accent-insensitive collations
- Full-text search

There are many more features that you can discover in the PostgreSQL documentation. Additionally, PostgreSQL is highly extensible: many features, such as indexes, have defined APIs so that you can build out with PostgreSQL to solve your challenges. PostgreSQL has been proven to be highly scalable both in the sheer quantity of data it can manage and in the number of concurrent users it can accommodate. There are active PostgreSQL clusters in production environments that manage many terabytes of data, and specialized systems that manage petabytes.

## **2.5 Conclusion**

This chapter started with project plan, followed by database schema representation, respected diagrams and software & hardware requirements along with the descriptions. The overall design structure of the project is also portrayed. The following chapter focuses on the implementation phase.



## **CHAPTER 3**

### **IMPLEMENTATION**

#### **3.0 Introduction**

Implementation is the stage of the project when the theoretical design turned into a working system. Thus it can be considered to be the most critical stage in achieving a successful new system and in giving the user, confidence that the new system will work and be effective. The implementation stage involves careful planning, investigation of the existing system and its constraints on implementation, designing of methods to achieve the changeover and evaluation of changeover methods.

#### **3.1 Method of solution related to problem**

A web app is an application that the user does not download and instead accesses via a web browser over a network. Example web browsers include Google Chrome, Safari and Mozilla Firefox. While there are many event applications without any reminders and calendar setting for the user. It does not contain any previous year's records for the better understanding of the user. The best solution is to fix the interactive calendar to the registered user's mobile phone and to store the data records in the application. It also updated whenever needed. The queries raised by the user is also cleared by help desk simultaneously.

#### **3.2 Accurate method of solution**

The accurate method of solution links the objective with the implementation process. It includes how each module works its functionality. The modules are integrated properly to make communication of data to be done properly. The application works in a dynamical and also it fetch the result for the user in a fast manner. It is the solution for the manual system that is being computerized. There are some other methods were used to solve this solution or problem. The objectives of the project have been analysed and accomplished. Accurate method of solution meets the requirements and has done with it. The proposed system has the following modules

- Fixing the calendar reminder to the registered user's mobile phone.

- Storing the data records of previous events, can be updated and solves the complaints or queries which was raised by the user.

### **3.2.1 Interactive Calendar**

The Interactive Calendar is fixed for reminding the users about the upcoming event scheduled by the brand. Users register their information upon desired event in the application. The Interactive Calendar works like the alarm. It notifies three times before a day about the scheduled event and one notification on the day of the event. While registering, the pop-up message will pop in the client's phone. Automatically the message will be saved in the phone's storage.

### **3.2.2 Data Storage and Help Desk**

The previous year's event data records were stored in the application for the clear understanding of the user. It can be updated whenever needed. The help desk process for the user, it includes the user's complaint and FAQs about the scheduled event. Admin will rectify the user's complaints and FAQs for the users. The complaint is delivered to the admin in the form of pop-up message and official email. The response from the admin should be delivered within four hours of the complaint. The FAQs about the event should be rectified within one hour and notified to the users. The complaint and FAQs is fixed in separate roots in the admin's application.

### **3.3 Conclusion**

Once the implementation phase is done, it is left to the developer or the testing team to check if each functionality of the application for which the code was developed and its works fine. The various text are carried out are discussed in the next chapter.

# **CHAPTER 4**

## **TESTING AND DOCUMENTATION**

### **4.0 Introduction**

Testing is one of the process by which one detects the defects in the software. It is considered as the final opportunity for developing team to detect and convert or rectify any defecting that may appear during the software development stage. Software testing is a process of testing a program with the explicit intention of review in software products and related documentation for completion, correction, reliability and maintainability.

Testing Objectives are,

- All field entries must work properly
- Ensure database is maintained with integrity and confidential
- The entry screen, messages and responses must be validated
- Validation of input has been done
- No duplicate entries should be allowed
- All links should take the user to the correct page

### **4.1 Testing Strategies**

The purpose of testing is to discover uncovered errors. Testing is the process of trying to discover every faults or weakness in the products. It provides a way to check the functionality of components, sub-assemblies. It is the process of exercising software with intent of ensuring that the software system meets its requirements and user exceptions and does not fail in an unacceptable manner. There are various types of test. Each type of test addresses specific testing requirements. Testing is the process in which the software tester has knowledge of the inner working structure and language of the software. The following are the types of testing that have been done to check and overcome the errors in the web application.

- Unit Testing
- Integration Testing
- Database Testing

### 4.1.1 Test Cases

A test case is an item which contains the following information

- **A set of test inputs.** These are data items received from external source by the code under test. The external source can be hardware, software or human.
- **Execution conditions.** These are conditions required for running the test, for examples, a certain state of database, or configuration of hardware device.
- **Expected output.** These are the specified results to be produced by the code under test.

### 4.1.2 Test Plan

Test plan describes an overall strategy and a procedure that defines specific steps and the tests that will be conducted. An effective test plan and procedure will lead to the orderly construction of the software and the discovery of errors at each stage in the construction process.

## 4.2 Test Results

Testing strategy leads to test results. Actual testing will take place in this section. Test results describes an input, action or event an Expected output, to determine if a feature of an application is working correctly and come up with an output testing phase. As mentioned in the previous section the test deliverables such as test cases, Project/Module name, test case description. Test input, expected output, actual output are contained in the test case. Every module was tested under certain conditions and errors were rectified. The following modules are tested and the actual results are furnished below.

- Interactive Calendar
- Data Storage and Help Desk

### 4.2.1 Unit Testing

This type of testing is performed by developers before the setup is handed over to the testing team to formally execute the test cases. Unit testing is performed by the respective developers on the individual units of source code assigned areas. The developers use test data that is different from the test data of the quality assurance team. The goal of unit testing is to isolate

each part of the program and show that individual parts are correct in terms of requirements and functionality.

#### Test outline

**Case 1:** Inter-Field dependencies

**Case 1.1:** Testing the login form, user email id and password input field, phone number and scheduled event details.

*Figure No 4.1 Outline Iteration 1*

**Table Name:** Test results for unit testing

S. No	Module Name	Test Condition	Test Data/Input	Expected Result	Actual Result
1	Login Module	Click on the login button after entering email id and password	Enter invalid email id & password	Message prompts that “check username & password”	Message prompts that “check username & password”
2	Login Module	Click on the login button after entering email-id and password	Enter valid email id & password	Message prompts that “Successfully logged in”	Message prompts that “Successfully logged in”
3	Registration Module	Click on submit button after entering the details of user	Enter invalid mobile number	Message prompts that “Mobile number should be of 10 digits”	Message prompts that “Mobile number should be of 10 digits”
4	Registration Module	Click on submit button after entering the	Enter Invalid Email id	Message prompts that “Please check	Message prompts that “Please check

		details of user		Email ID''	Email ID''
5	Registration Module	Click on submit button after entering the details of user	Enter valid Details	Message prompts that "Successfully Registered"	Message prompts that "Successfully Registered"

*Table No 4.1 Test results for unit testing*

## Test Results

All the test cases mentioned above passed successfully. No defects are encountered.

### 4.2.2 Integration Testing

Integration testing is defined as the testing of combined parts of an application to determine if they function correctly. Integration testing can be done in two ways they are

**Bottom-up integration:** This testing begins with unit testing, followed by tests of progressively higher-level combinations of units called modules or builds.

**Top-down integration:** In this testing, the highest-level modules are tested first and progressively, lower-level modules are tested thereafter.

**Case 2:** Interaction between modules of the application

**Case 2.1:** Check if login button is redirect to registration form

**Case 2.2:** Check if pressing the register button, the notification is giving the pop-up message with sound or not.

**Case 2.3:** check if all the data records are stored correctly without any duplicated data.

**Case 2.4:** Check if pressing previous event records is redirects to corresponding record details page and displays the data records.

**Case 2.5:** Check if the help page and FAQS form is redirecting to the particular page and rectifying the problem or not.

*Figure No 4.2 Outline Iteration*

**Table Name:** Test results for Integration testing

S.No	Module Name	Test Condition	Expected Result	Actual Result
1	Login page	Click on login button after entering valid input data	Navigate to the Alternate Page	Navigate to the Alternate Page
2	Calendar page	Calendar must be fixed to the particular event date.	Navigate to the CalendarPage task activity	Navigate to the CalendarPage task activity
3	Data Records	Click on display button for the details of previous events	Previous event details should be displayed.	Previous event details should be displayed in the page.
4	Help Desk	Email is received from the user and should clear the solution.	The FAQS must be clarified by the admin and should be updated soon.	The FAQS must be clarified by the admin and should be updated soon.

*Table No 4.2 Test results for Integration testing*

### **Test Results**

All the test cases mentioned above passed successfully. No defects are encountered.

#### **4.2.3 Database Testing**

Database testing involves the retrieved values from the database by the web or desktop application. Data in the User Interface should be matched as per the records are stored in the database.

**Case 3:** Check whether the user is allowed to perform only those specific operations which are specified by the event requirements.

**Case3.1:** Check whether the registration and entered data are correct. Also, the data are fetched correctly or not.

**Case 3.2:** Check whether the details are retrieved correctly from the database.

*Figure No 4.3 Outline Iteration 3*

**Table Name:** Test results for Database testing

S.No	Module Name	Test Condition	Test Data/Input	Expected Result	Actual Result
1	Interactive Calendar	Click the register button to save the details in the database	Personal and event details are entered	The personal and event details has been successfully registered	The personal and event details has been successfully registered
2	Data Storage and Help Desk	Data records are stored and the information should be retrieved	All data records are entered	details has been successfully fetched and displayed	details has been successfully fetched and displayed

*Table No 4.2 Test results for Integration testing*

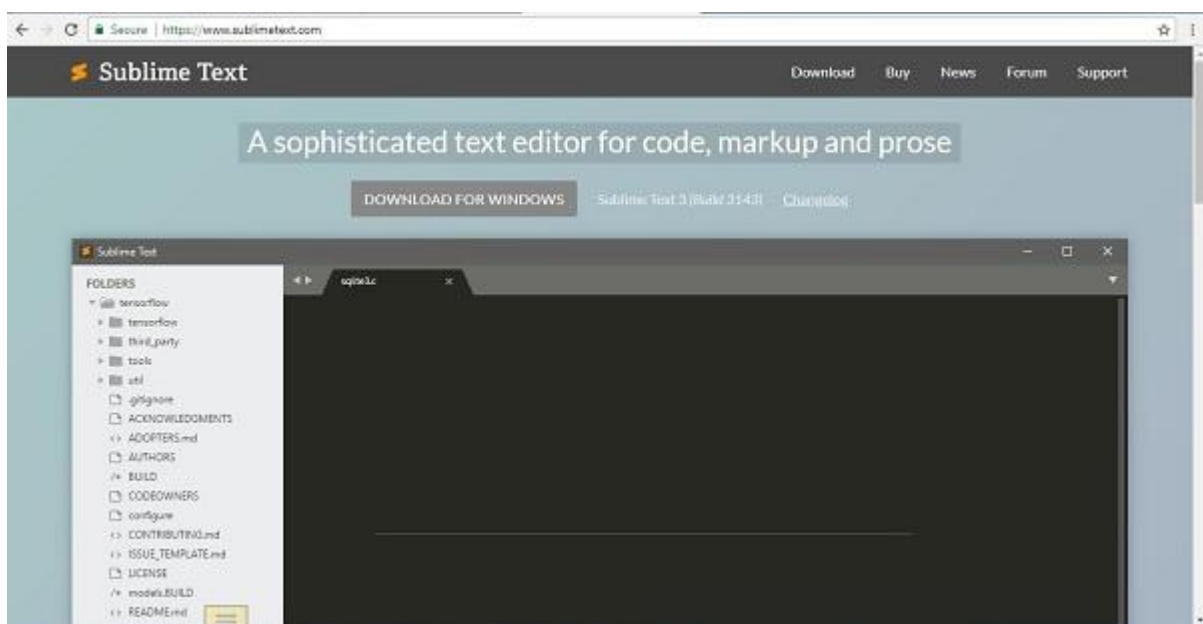


## 4.3 Technical Documentation

The accuracy of organization's technical documentation benefits the company and customers by offering a credible resource for how to use the develop solution or product. Inaccurate and outdated documentation can hobble internal development efforts and negatively affect external customers as well, when they cannot resolve their own issues by consulting the documentation that accompanies the product. A lack of accurate and accessible information also increases the learning curve for new developers and other technical staff. To overcome all these things a well-structured technical documentation is needed. Technical documentation has become important within such organizations as the basic and advanced level of information may change over a period of time with architecture changes.

### 4.3.1 Installation of Sublime Text Editor

**Step1:**Download Sublime Text from its official website – [www.sublimetext.com](http://www.sublimetext.com)

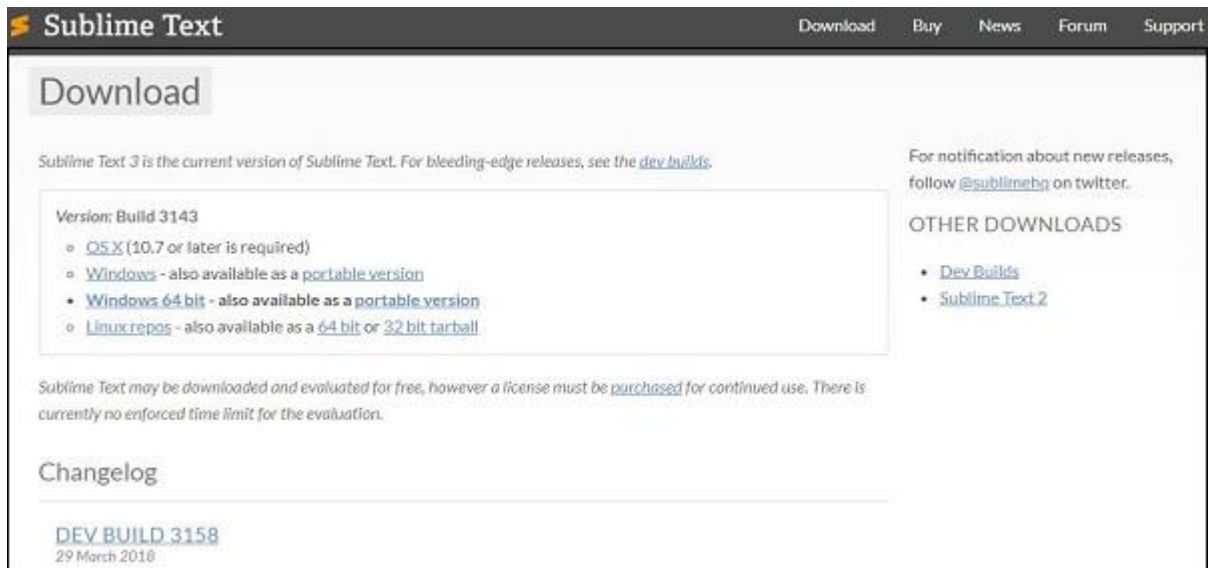


*Figure no 4.4 open the Sublime Text Editor website*

### Installation on Windows

**Step 2:** Download the **.exe** package from the official website as shown below

<https://www.sublimetext.com/3>



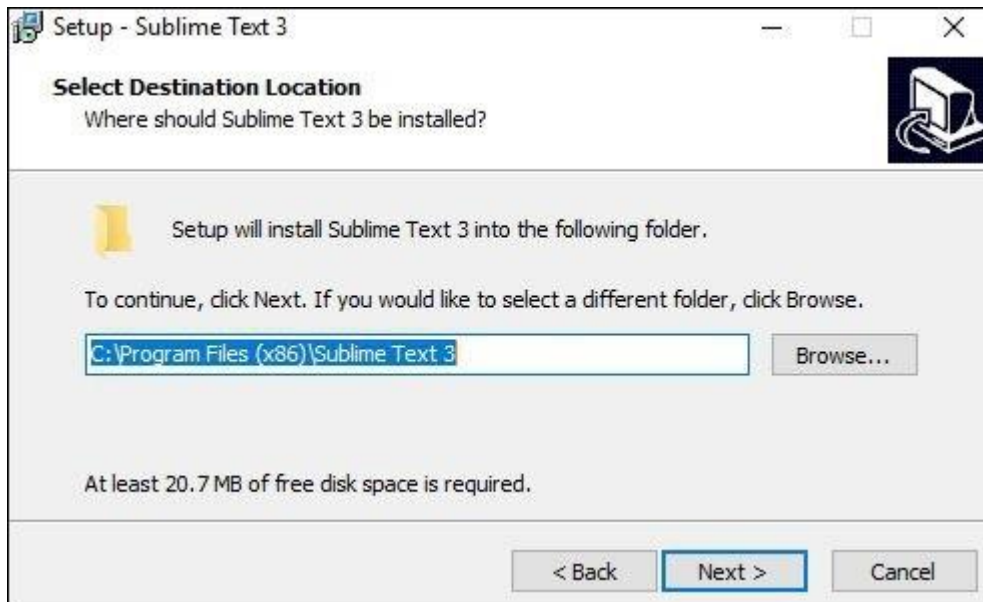
*Figure No 4.5 Select the Operation System*

**Step 3:** Now, run the executable file. This defines the environment variables. When you run the executable file, you can observe the following window on your screen. Click **Next**.



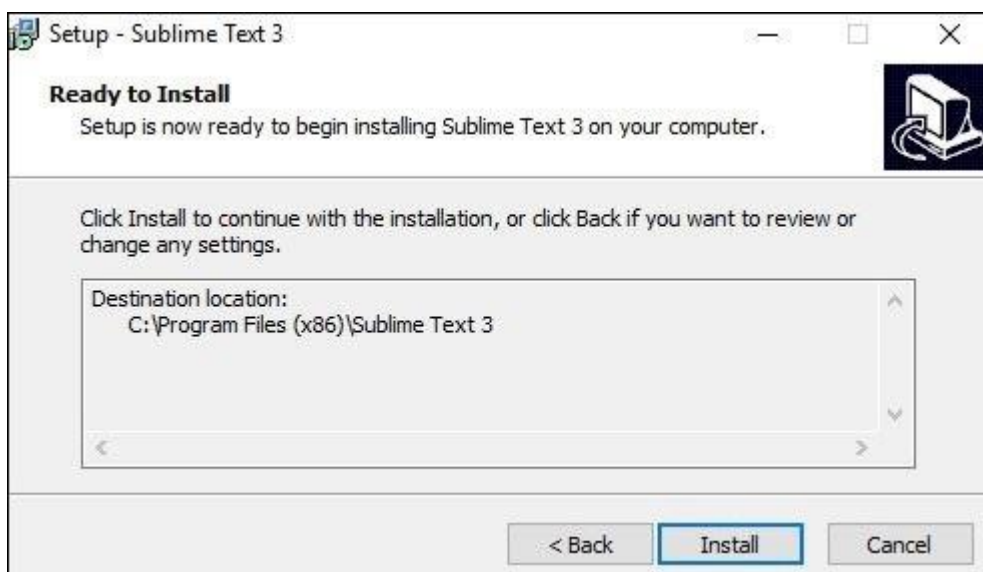
*Figure No 4.6 Setup Wizard of Editor*

**Step 4 :** Now, choose a destination location to install Sublime Text3 and click **Next**.



*Figure No 4.7 Select the Path Location*

**Step 5:** Verify the destination folder and click **Install**.



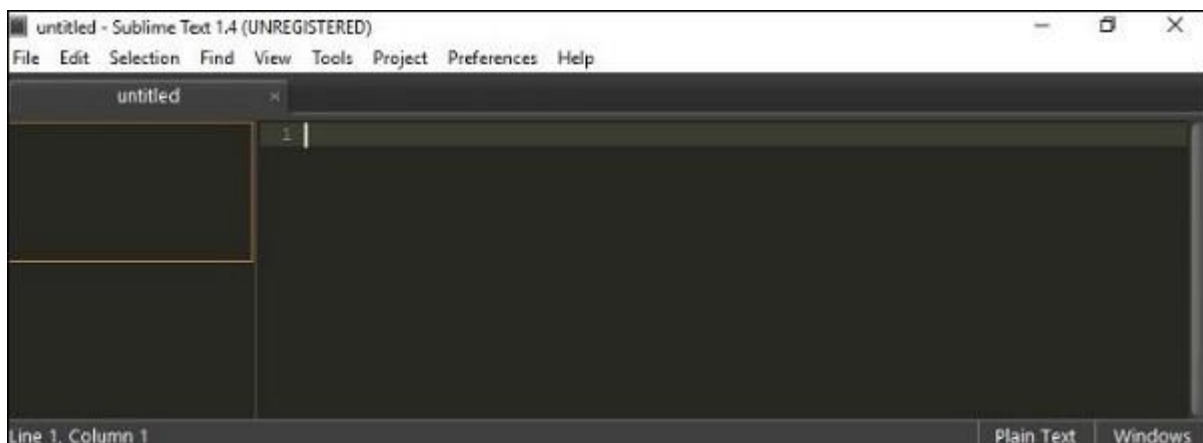
*Figure No 4.8 Click the Install button*

**Step 6:** Now, click **Finish** to complete the installation.



*Figure No 4.9 Click the Finish button*

**Step 7:** Upon a successful installation, your editor will appear as shown below



*Figure No 4.10 Ready to code*

### 4.3.2 Postgres

**Step 1:** Download PGInstaller using

<https://www.2ndquadrant.com/en/resources/postgresql-installer-2ndquadrant/>.

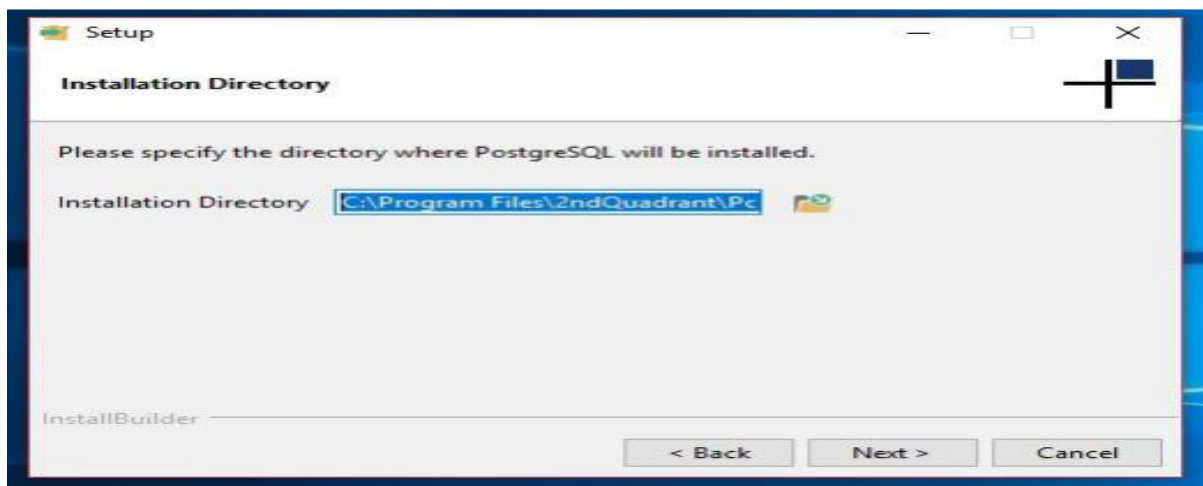
**Step 2:** Click on the executable file to run the installer.

**Step 3:** Select your preferred language.



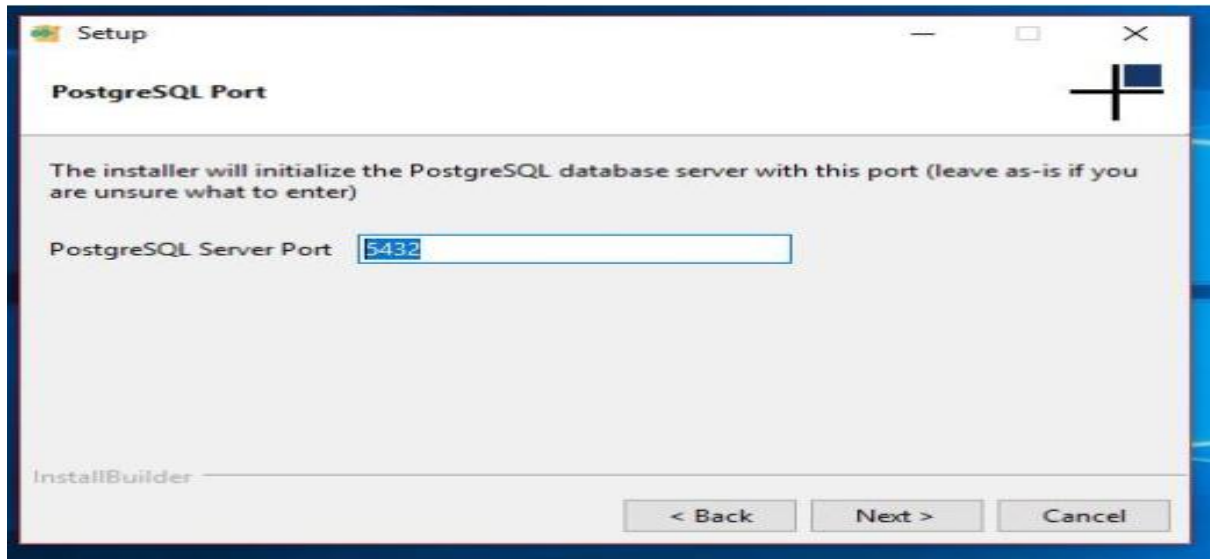
*Figure 4.11 Select Language*

**Step 4:** Specify directory where you want to install PostgreSQL.



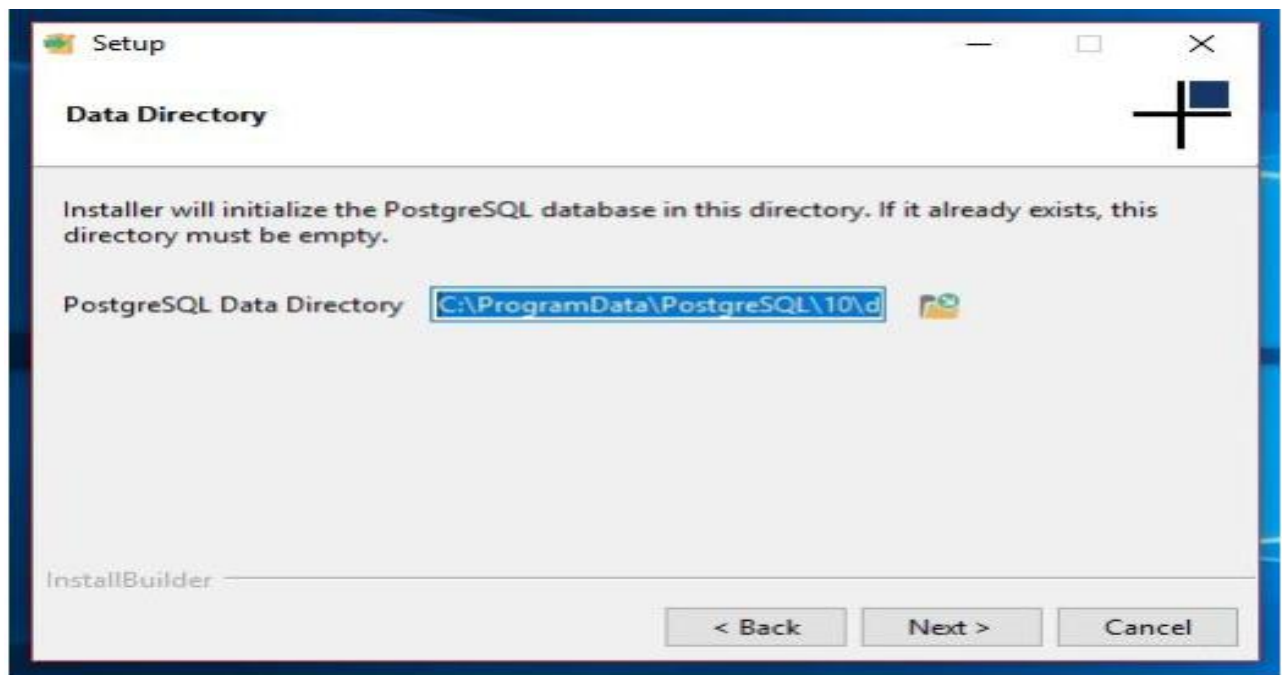
*Figure 4.12 Selecting Directory*

**Step 5:** Specify PostgreSQL server port. You can leave this as default



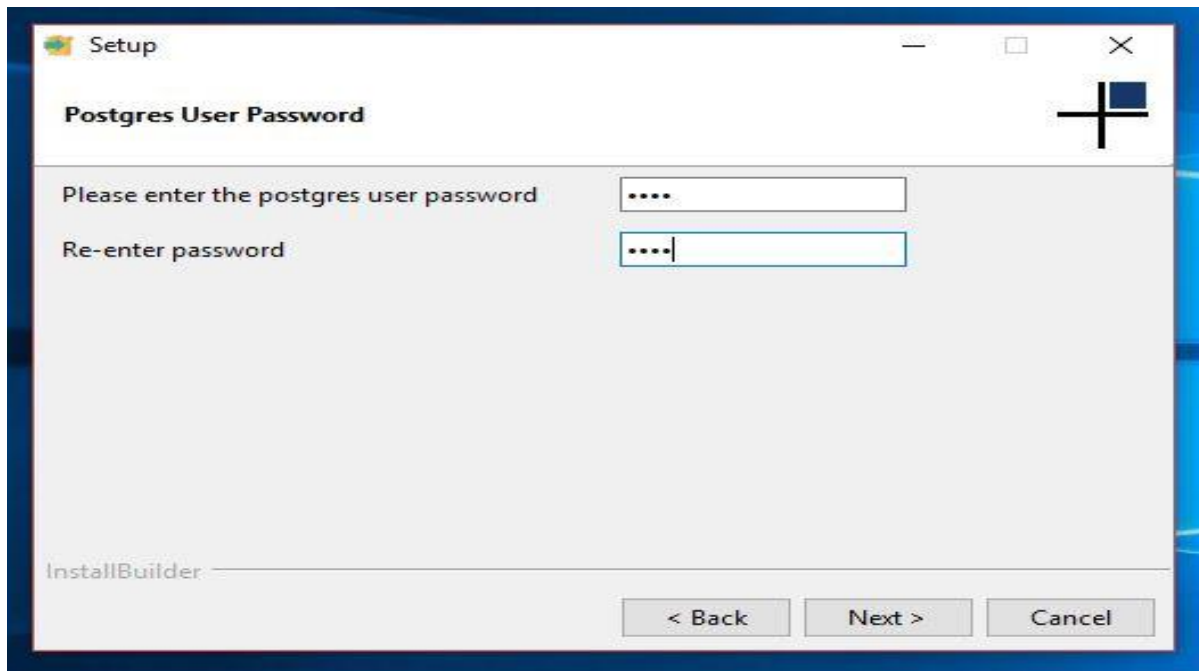
*Figure 4.13 Specify Server Port*

**Step 6:** Specify data directory to initialize PostgreSQL database.



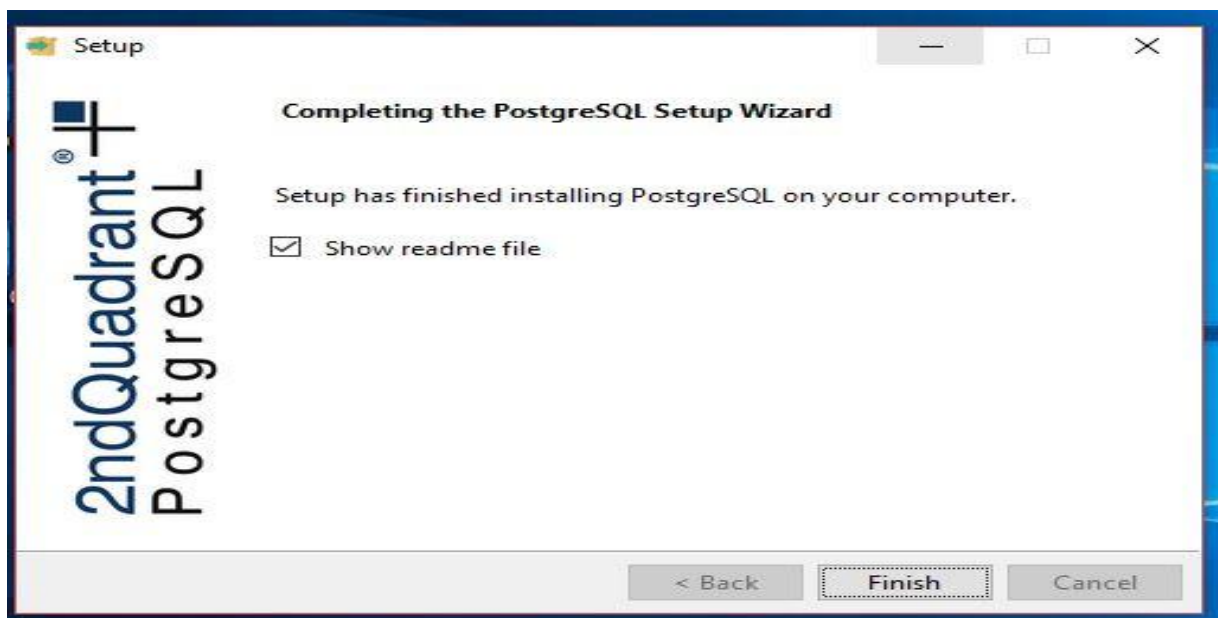
*Figure 4.14 Specifying Data Directory*

**Step 7:** Create a PostgreSQL user password.



*Figure 4.15 Setting Postgresql Password*

**Step8: Click Finish**



*Figure 4.16 Setup Finished*

#### **4.4 User Documentation**

User documentation needs to be consistent, simple and have a thorough index. It enables a user to understand the user interface better. It enables user to understand the Graphical User Interface (GUI) better. In this project, there are various options that would be carried out by various people. The proper manual has to be given in order to have feasible access with this system. The user is the most important subtasks of the developer. For this purpose user manuals are prepared and handled over to operate the developed system. Thus the users are trained to operate the developed system. Both hardware and software securities are made to run the developed system successfully in future. The users are trained to use the newly developed functions. User manuals describing the procedures for using the functions listed on menu are circulated to all users. It provides a document to make the end user clear in working of the software.

#### **4.5 Conclusion**

The application was effectively tested under different strategies. Each functionality and sub-assembly were tested completely. Each and every test result was maintained in order to keep track of the whole testing phase. Various errors were detected and rectified for each strategy before moving on to the next one. This the system was tested completely and ensured that it meet the requirements and the user's expectations.



# **CHAPTER 5**

## **CONCLUSION**

### **5.0 Introduction**

This chapter deals with the evaluation of the entire application in various views and then the future enhancement has to be taken into consideration. Finally, the chapter discusses in details about the technical skill that has been learned while developing the system.

### **5.1 Evaluation**

Evaluation requires that the developers discard preconceived notions of the correctness of the software just developed and overcome a conflict of interest that occurs when errors are uncovered. If evaluation is encountered successfully, it uncovers errors in the software. Evaluation cannot show the absence of defect; it can only show that the software defects are present. Evaluation helps in determining the value and effectiveness of the system. Assessment and validation tools provide data for evaluation. Assessment is the measurement of the practical results of the training in the work environment; while validation determines if the objective of training goal were met

#### **5.1.1 Evaluation checklist**

The project is evaluated in two views. They are:

- Administrator view
- User view

##### **5.1.1.1 Administrator view**

The administrator is the one who controls the web application entirely. Since the administrator controls all operation, the application, must be evaluated whether it is flexible for the administrator while adding new menu items and inventory items, approve the details and user profiles, delete unwanted and obscene details

### 5.1.1.2 User view

It mainly deals with the verification of user satisfaction to meet the requirements. If the user is very comfortable with the application that leads him/her to share to his/her friends. The ease of use and responsive GUI, it can make the application simple and clear. Here are some evaluation checks that has been done which are linked to the objectives.

**Let's check their point of view.**

EVALUATION CHECKLIST	YES	NO	N/A
Is there a consistent design scheme that facilitates or ease he  Data flow in case of any upload failure?	✓		
Is there a visual representation of the business logic for better understanding?	✓		
Does the system operate even when interrupted by any  Network or logical error?	✓		
Does the exit () closes the system abruptly without the changes being saved?		✓	

*Table No 6.1 Evaluation checklist*

### 5.2 Future enhancements

The future enhancements of Application might be migrating the complete project to another technology like React or it may take different concepts as per customer's requirement. The major enhance that will made in future are,

- Integration with demand option.
- Automation in sending important mails and information
- Divided with price and quality based classify
- Adding more functionality for user management phase.
- Adding live event location.
- Data Records can be encrypted.

### **5.2.1 System Development**

The most important fact of the system development is that it must be flexible enough for future modifications. The system has been designed and developed in such a way that it would be very easily upgraded for future requirements and flexible for future development. The project can be enhanced in a more efficient way so as to meet future development.

### **5.3 Technical skills learned**

It has been a great pleasure to work on this exciting and challenging project. This project proved good as it provided practical knowledge of not only programming but also the knowledge of the best technologies which is being widely used nowadays. This project has helped to learn the following skills,

- I have learned the concepts of jQuery.
- I have learned basic concepts of bootstrap.
- I have experienced working in a real time project which helped me get exposed to different factors that play a main role in IT sector.
- I have also learnt how to interact with senior employees through reports which is a key source of communication within a working environment.
- I have learned how to access postgresql

### **5.4 Conclusion**

This project has achieved the requirements and objectives that have been identified during analysis phase. Web Application for Interactive Calendar has helped to bring out solutions for several issues faced. Modifications after successful analysis can be incorporated into the system. The system has been well developed and future enhancements are also explained, so that it could be used to make any of the future modification; this making the application more scalable and flexible.

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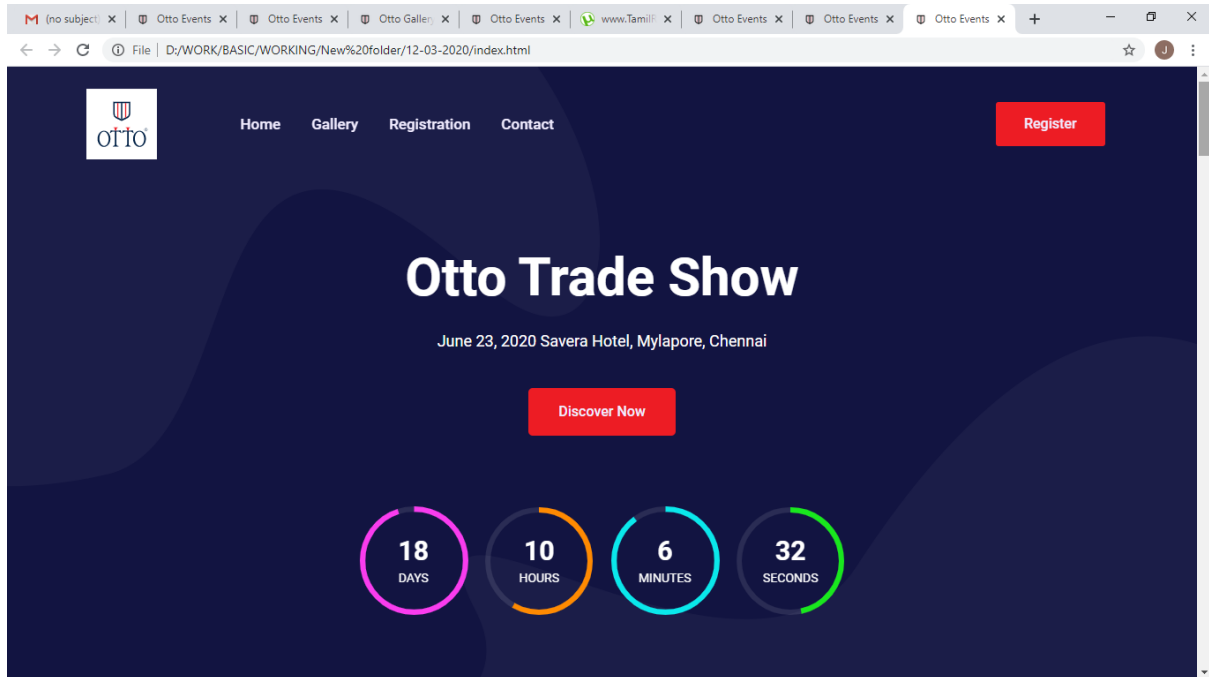
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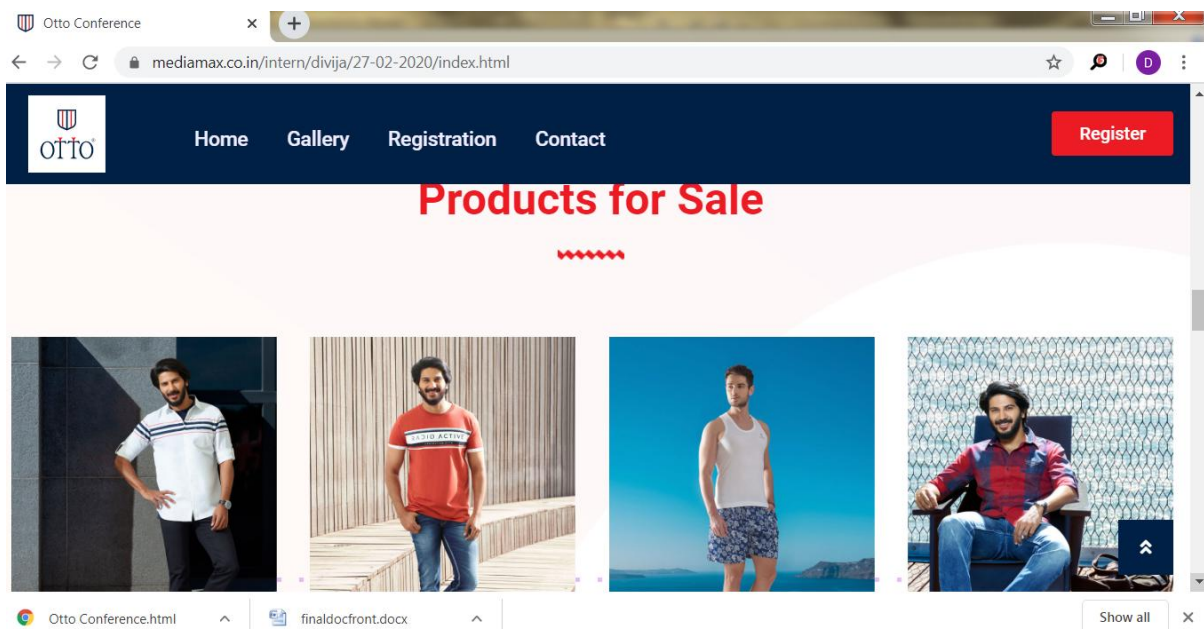
1. <https://www.youtube.com/watch?v=8kfIIVBb1w0> – Setting remainders
2. [https://www.w3schools.com/css/css3\\_gradients.asp](https://www.w3schools.com/css/css3_gradients.asp) - Fixing gradients to the page
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5. <https://freshdesignweb.com/css3-social-media-buttons/> - Fixing social Media Icons with links.

## APPENDIX

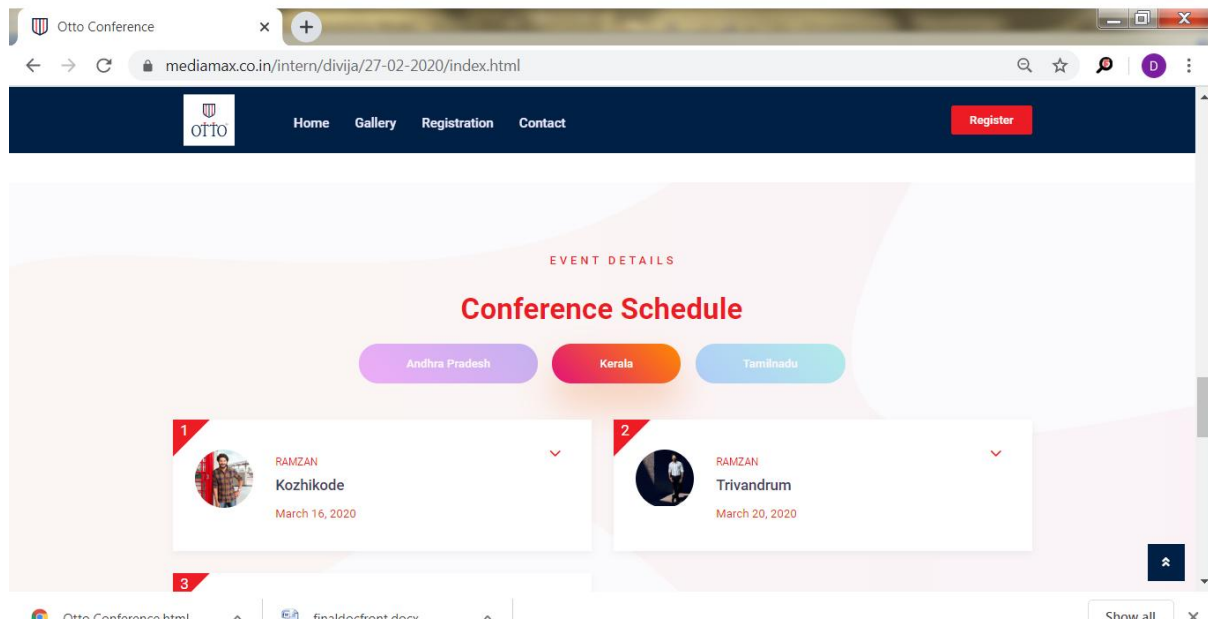
### SCREENSHOTS



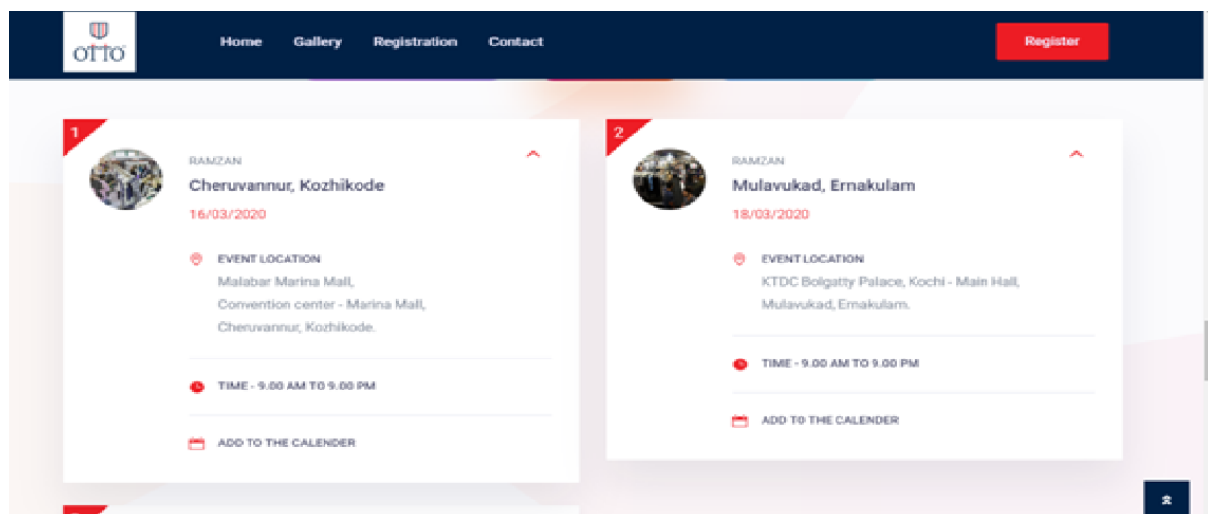
*Annual Events Menu page*



*Product Collections*



*Event Schedule*



*Event Scheduled to the user's Calendar*



Otto Conference

mediamax.co.in/intern/divija/27-02-2020/register.html

Home Gallery Registration Contact Register

## Register here

Name

Dealer Id

Phone Number

Show all

*Event Registration Form*

Otto Conference

mediamax.co.in/intern/divija/27-02-2020/contact.html

Home Gallery Registration Contact Register

## Get in Touch

Your Name

Your Email

Subject

**Head Office**

#30, 3rd Floor, Bazullah Rd,  
T. Nagar, Chennai - 600017

**Call for Support**

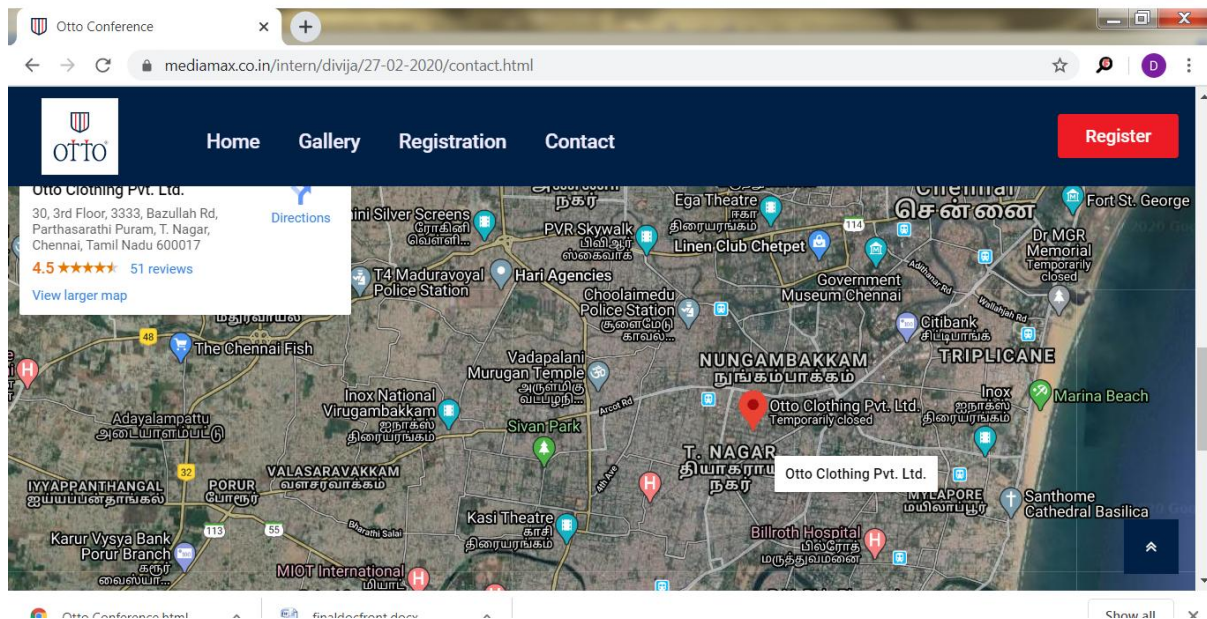
contact@ottoclothing.in

+91 44 4201 3333

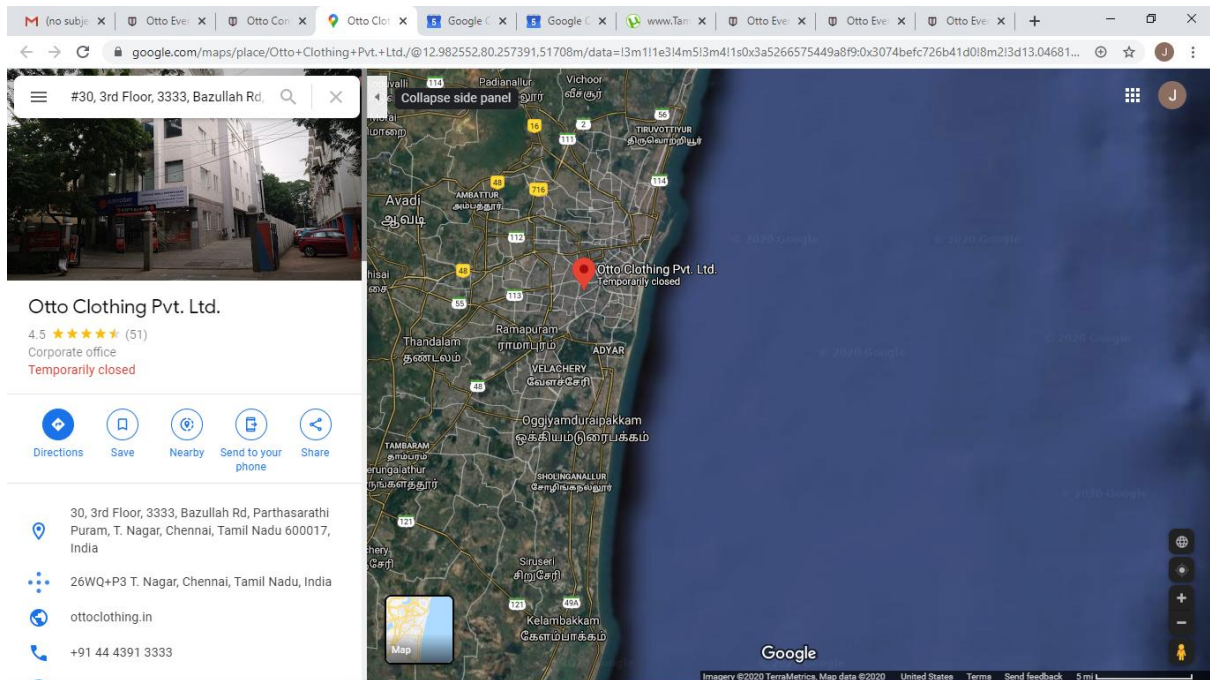
Show all

*Contact and Feedback Page*





*Map Fixation*



*Brand Location Page*