

***SOFTWARE DESIGN SPECIFICATION***

**By**

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**1.0 Introduction**

This section provides an overview of the entire design document. This document describes all data, architectural, interface and component-level design for the software.

**1.1 Goals and objectives**

This website will allow the students and other members of Cleveland State University to post about any events so that other students can get aware of the same and can register themselves to attend the event of the Cleveland State University.

**1.2 Statement of scope**

This website is currently available only for the students and other staffs associated with Cleveland State University only.

To access the website, User must have a valid CSU ID card.

**1.3 Software context**

The software is placed in a business or product line context. Strategic issues relevant to context are discussed. The intent is for the reader to understand the 'big picture'.

**1.4 Major constraints**

* User must be in direct association with the University at the time of using the website.
* Events are only to be conducted/organized in the University Campus itself.
* 3rd party plugins keep on changing their plans, so for this project I need to change some plugins which may impact the time duration of the event update notification.

**2.0 Data design**

**2.1 Database Description**

For Database, MS SQL Server 2019 has been chosen as database of choice.

Our application follows the Tabular structure as SQL works with an efficient speed. This high speed can boost the amount of data retrieval. It can give users a rapid and effective means to obtain, alter, or store data.

Diagram

Description automatically generated

**3.0 Architectural and component-level design**

A description of the software architecture is presented.

**3.1 Architecture diagrams**

This application is developed using the CLEAN architecture. Clean architecture has a domain layer, Application Layer, Infrastructure Layer, and Framework Layer. The domain and application layer are always the center of the design and are known as the core of the system. The core will be independent of the data access and infrastructure concerns.

Diagram

Description automatically generatedAll the dependencies of the application are Independent/Inwards, and the Core system has no dependencies on any other layer of the system. So, in the future, if we want to change the UI/ OR framework of the system, we can do it easily because all the other dependencies of the system are not dependent on the core of the system.

**3.2 Description for Components**

A description of major software components contained within the architecture is presented. Section 3.2.1 is repeated for each of n components.

**3.2.1 Component n description**

**3.2.1.1 Interface description**

**Input**:

All inputs will come from user through button clicks on the web application.

**Output:**

Every button click event will result in the change in display screen.

**3.2.3.3 Dynamic models**

Chart, diagram

Description automatically generatedActivity diagram:

**4.0 User interface design**

A description of the user interface design of the software is presented.

**4.1 Description of the user interface**

Chart

Description automatically generated 1. Login Page

Graphical user interface, text, application

Description automatically generated2. User Profile Page

3. Event Creation Page

Graphical user interface, application

Description automatically generated

Graphical user interface

Description automatically generated with medium confidence4. Home Page

**4.2 Interface design rules**

The interface is designed with React JS. It's used for building interactive user interfaces and web applications quickly and efficiently with significantly less code than you would with vanilla JavaScript.

React provides a vast number of libraries with lots of Material UI components.

**5.0 Restrictions, limitations, and constraints**

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