



SARVAJANIK COLLEGE OF ENGINEERING AND TECHNOLOGY
COMPUTER ENGINEERING DEPARTMENT



B. E. - IV, CO, SEM - VIII, DIV - I
(Term : EVEN - 2023-24)

Mid-Sem submission Presentation
on

Web Development

Subject Name : Summer Internship (3180701)

Prepared and Presented by

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Guided by

Prof. Jayesh Chaudhary

Company Overview



- **Name** : Digitattva Technolabs
- **Address** : The Daftaar , Nanpura , Surat.
- **Web-site** : [Digitattva Technolabs](https://digitattva.com)
- **Industry mentor's Details** :
 - **Name** : Naitik Shah
 - **Contact number** : 8976677224
 - **E-mail** : naitik@digitattva.in

Presentation Outline

- Introduction about Internship
- Programming Languages & Tools
- JavaScript Concepts
- jQuery & AJAX Concepts
- Vue.js Concepts
- Libraries
- Vue.js Practice Tasks
- Main Project
- Summary

Introduction about Internship

- **Overview:** Overview of my internship experience focused on frontend and backend web development.
- **Duration:** 10th January To 30th April
- **Role:** Web Development Intern
- **Objectives:** Gaining hands-on experience in Vue.js and Node.js to build dynamic and scalable web applications.
- **Key Learnings:** Acquisition of skills in frontend and backend development with a focus on Vue.js and Node.js.
- **Goals:** Enhancing proficiency in modern web development technologies to create interactive user interfaces and robust server-side logic.

Programming Languages & Tools

- **Programming Languages:**
 - **HTML, CSS, JavaScript:** Created engaging, responsive, and interactive user interfaces.
- **Development Tools:**
 - **Postman:** Ensured API reliability and efficiency through rigorous testing.
- **Frameworks & Libraries:**
 - **jQuery:** Enhanced DOM manipulation and event handling for interactivity.
 - **AJAX:** Enabled seamless data exchange between client and server.
 - **Vue.js:** Built dynamic user interfaces with component-based architecture.
 - **Node.js:** Enabled scalable backend development with server-side JavaScript.

JavaScript Concepts



- **Essential Concepts:**
 - Variables ,Data Types, Operators,Control Structures.
- **Advanced Concepts:**
 - **Closures:** Functions that retain access to their enclosing scope's variables even after the scope has closed.
 - **Prototypes:** Mechanism by which objects inherit properties and methods from other objects.
 - **Hoisting:** JavaScript's behavior of moving variable and function declarations to the top of their containing scope.
 - **Asynchronous Programming Patterns:**
 - **Callbacks:** Functions passed as arguments to other functions to be executed later.
 - **Promises:** Objects representing the eventual completion or failure of an asynchronous operation.
 - **Async/Await:** Syntactic sugar for writing asynchronous code in a synchronous manner.

JavaScript Tasks

- **Title:** Table Manipulation & Character Limit
- **Language:** HTML , CSS , JavaScript
- **Link:** <http://127.0.0.1:5501/task1.html>
<http://127.0.0.1:5501/task2.html>
- **Tasks Description:**
 - Create a static table with specific fields and data, and implement various functionalities like checkbox manipulation, row deletion, row duplication, row color changes, and more.
 - Implement character limit functionality in a textarea along with a character count feature.

Implementation of Task

JS

Delete SpecifiedEvenCountAdd Data

<input type="checkbox"/>	Student Name	Roll No	Class	Actions		
<input type="checkbox"/>	ABC	1	class A	Edit	Delete	Duplicate
<input type="checkbox"/>	DEF	2	class A	Edit	Delete	Duplicate
<input type="checkbox"/>	GHI	3	class A	Edit	Delete	Duplicate

Internsh

Characters remaining: 2

jQuery & AJAX Concepts

- **jQuery Concepts:**

- Selectors, events, effects, animations.
- Explanation of each concept's significance in enhancing web development tasks.

- **Demonstration with jQuery:**

- How to manipulate DOM elements, handle events, and perform common tasks efficiently using jQuery.

- **Introduction to AJAX (Asynchronous JavaScript and XML):**

- Explanation of AJAX's role in enabling asynchronous communication between the client and server, facilitating dynamic content loading without page reloads.

- **AJAX Concepts:**

- XMLHttpRequest(XHR), Fetch API, and AJAX libraries like jQuery AJAX.
- Overview of each component's functionality in AJAX-based web development.

jQuery Task

- **Title :** Dropdown Selection
- **Language & Tools** HTML , CSS , jQuery Library
- **Link :** <http://127.0.0.1:5500/task3.html>
- **Task Description:**

Create a select dropdown menu with predefined options and perform operations such as getting the selected option's value, enabling/disabling options dynamically, adding new options dynamically, and setting the first option as selected using jQuery.

Subject Selection

Select a subject: ▼ Get Selected Subject

Selected Subject is :- science

Add Disable Reset and Add Option Clear All

Vue.js Concepts

- **Introduction to Vue.js:**
 - Vue.js is a progressive JavaScript framework for building user interfaces.
- **Key Vue.js Features:**
 - **Props:** Passing data from parent to child components.
 - **Data Binding:** Establishing a connection between the UI and data model.
 - **Computed Properties:** Dynamically computing derived data based on Vue.js reactive data.
 - **Watcher:** Reacting to changes in Vue.js reactive data by executing custom logic.
- **Handling User Input:**
 - **Form Modifiers:** Enhancing form input handling with modifiers such as `.lazy` and `.trim`.
 - **Slots:** Customizing component structure and behavior using slots for content distribution.
 - **Teleport Component:** Moving a component's DOM structure to a different location in the DOM tree.

Vue.js Concepts

- **Vue Router Integration:**
 - Routing API Integration in Vue 3: Incorporating Vue Router for client-side routing and navigation.
- **State Management with Vuex:**
 - **Vuex Store:** Managing application state with a centralized store for Vue.js applications.
 - **Vuex Helpers:** Simplifying Vuex usage with helper functions and utilities.
- **Advanced Vue.js Concepts:**
 - **Composition API:** Enhancing component organization and logic with the new Composition API.
 - **Mixins:** Reusable code blocks for extending Vue.js components.
 - **Tailwind CSS Integration:** Integrating Tailwind CSS for rapid UI development and styling.
 - **Lifecycle Methods:** Understanding the lifecycle of Vue.js components for managing component initialization, mounting, updating, and destruction.

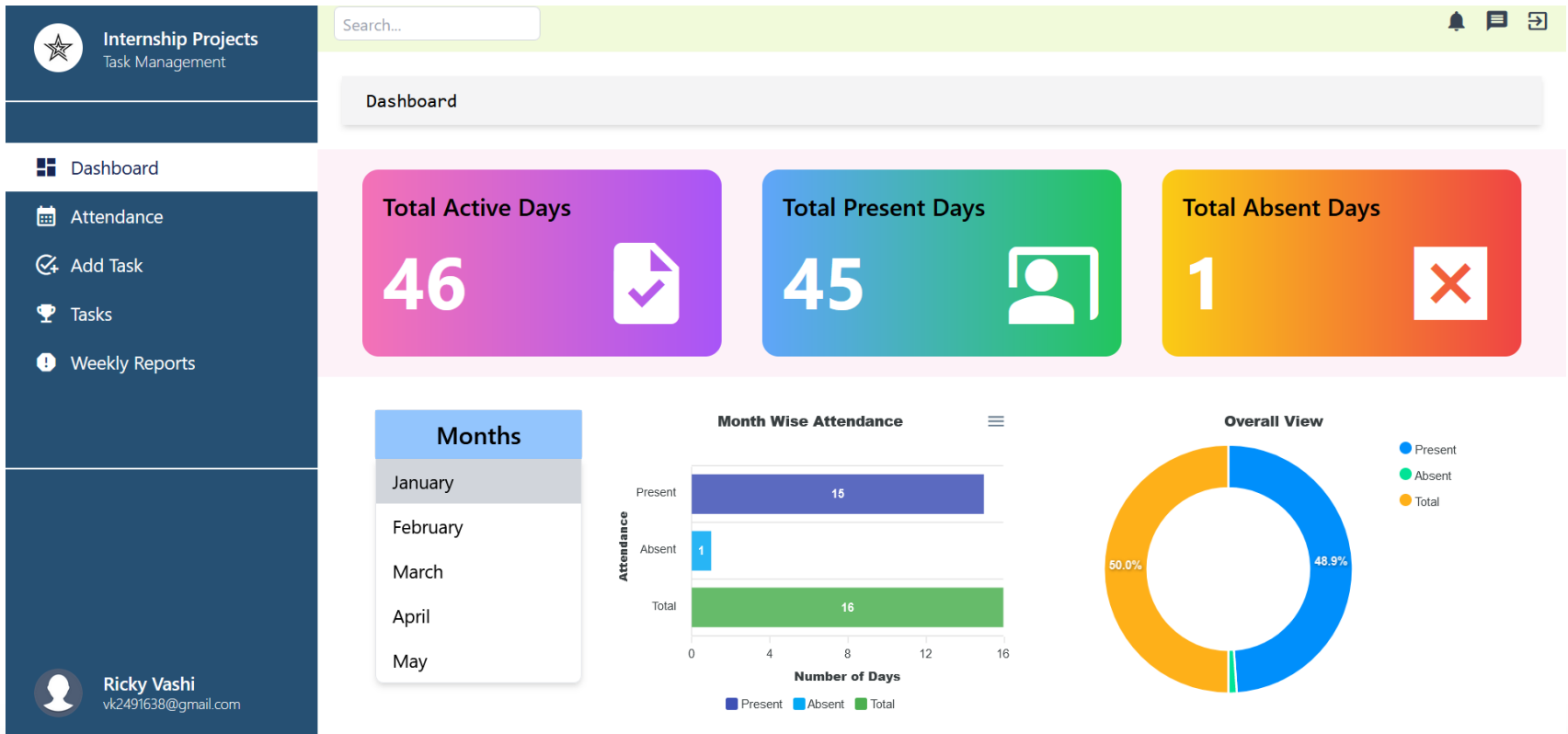
Libraries

- **UUID:** Generates universally unique identifiers in Vue.js. [Documentation](#)
- **vee-validate:** Provides form validation functionality for Vue.js. [Documentation](#)
- **JSON-server:** Creates a fake REST API server using JSON files. [Documentation](#)
- **VueMultiSelect:** Offers a customizable multi-select component. [Documentation](#)
- **vuedraggable:** Enables draggable functionality for Vue.js. [Documentation](#)
- **vue3-tailwind:** rapid UI development and styling. [Documentation](#)
- **vueloader:** Offers a loading spinner component. [Documentation](#)
- **vue-mask:** input masking capabilities for input elements. [Documentation](#)
- **material-icons:** Provides a collection of Material Design icons [Documentation](#)
- **socket.io:** Facilitates real-time, bidirectional communication between web clients and servers. [Documentation](#)
- **axios:** HTTP client library for making AJAX requests. [Documentation](#)
- **vue3-apexcharts:** a modern charting library. [Documentation](#)
- **datepicker:** Offers a datepicker component for selecting dates. [Documentation](#)
- **v-calendar:** Provides a customizable calendar component. [Documentation](#)
- **vue-router:** Official router for Vue.js applications, enabling client-side routing and navigation. [Documentation](#)

Tasks


- **Todo App (Vue 3):** Basic Todo application using Vue 3.
- **Validation Form (VeeValidate):** Form with validation using VeeValidate.
- **Currency Calculator (watcher and computed):** Calculator for currency conversion using watchers and computed properties.
- **DropZone & DraggableList (vue-draggable):** Implement a DropZone and DraggableList using vue-draggable.
- **Infinite Scrolling:** Implement infinite scrolling functionality.
- **Admin Panel & Dashboard Design (Tailwind):** Design an admin panel and dashboard using Tailwind CSS.
- **Credit Card Generator (v-mask):** Generate credit card numbers with formatting using v-mask.
- **API Data Fetch (axios & Node.js):** Fetch data from an API using axios in a Node.js environment.
- **Todo App with Vuex Store:** Expand the Todo app using Vuex for centralized state management.
- **Chat App (socket.io):** Develop a real-time chat application using socket.io for bi-directional communication.


Implementation of Task





[Project Link](#)


Implementation of Task


**Internship Projects**
Task Management

 Attendance




 Add Task

 Tasks

 Weekly Reports

**Ricky Vashi**
vk2491638@gmail.com

Search...



My Attendance

<


January 2024


>


S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			


[Project Link](#)


Implementation of Task


**Internship Projects**
Task Management


 Dashboard




 Attendance

 Add Task


 Tasks

 Weekly Reports

**Ricky Vashi**
vk2491638@gmail.com




Projects



ApexCharts

ApexCharts is a versatile JavaScript charting library offering interactive, customizable, and responsive charts for web development.


From :- **23-02** To :- **23-02**



CurrencyTransfer

CurrencyTransfer is a tool facilitating the transfer of currency values through computed property of vue.js


From :- **13-03** To :- **14-03**




DoubleList

This task is utilizing the 'vuedraggable' library to enable drag-and-drop functionality for list elements.

From :- **13-03** To :- **14-03**



Dronzone



Infinite Scroll

[Project Link](#)

Main Project

- **Title:** Sunshine Construction
- **Main Modules :**
 - **LogIn/SignUp:** Handles user authentication and registration processes.
 - **Contractor:** Module for managing contractors involved in construction projects.
 - **Sub-contractor:** Module dedicated to managing sub-contractors engaged in specific tasks.
 - **Projects:** Central hub for tracking and managing various construction projects.
 - **Bids:** Facilitates the process of bidding for project contracts.
 - **Billing:** Handles billing and invoicing for services rendered and materials used.
 - **Payment:** Manages payments with different statuses, ensuring timely compensation.
 - **Email Templates:** Provides customizable templates for sending notifications and updates.

Implementation of Task

Login Page :-



The login page features a dark blue background with a subtle geometric pattern. On the left, the 'SUNSHINE CONSTRUCTION' logo is displayed, consisting of a yellow sun icon and the company name in white. Below the logo, there are white silhouettes of five buildings of varying heights. On the right, a white login form is overlaid. The form includes a title 'Login to your Account!', an email input field with the placeholder 'Email *' and the value 'tango@digitattva.com', a password input field with a placeholder 'Password *', a 'Forgot Password' link, a 'Remember me' checkbox, and a 'Login' button. At the bottom of the form, there is a 'Activate Windows' notice.

SUNSHINE CONSTRUCTION

Login to your Account!

Email *
tango@digitattva.com

Password *
•••••

[Forgot Password](#)

☒ Remember me

Login

Activate Windows
Go to Settings to activate Windows.

Implementation of Task

Recover Password Page :-



 **SUNSHINE**
CONSTRUCTION

Recover your password

Email *

Send Reset Link

[Back to Login](#)

Activate Windows
Go to Settings to activate Windows.

Implementation of Task

After Recover Password :-

Send Code To:

☒ Email ☐ SMS

[Submit](#)

[Back to Login](#)

Please enter to code sent to email ending in ta*****com

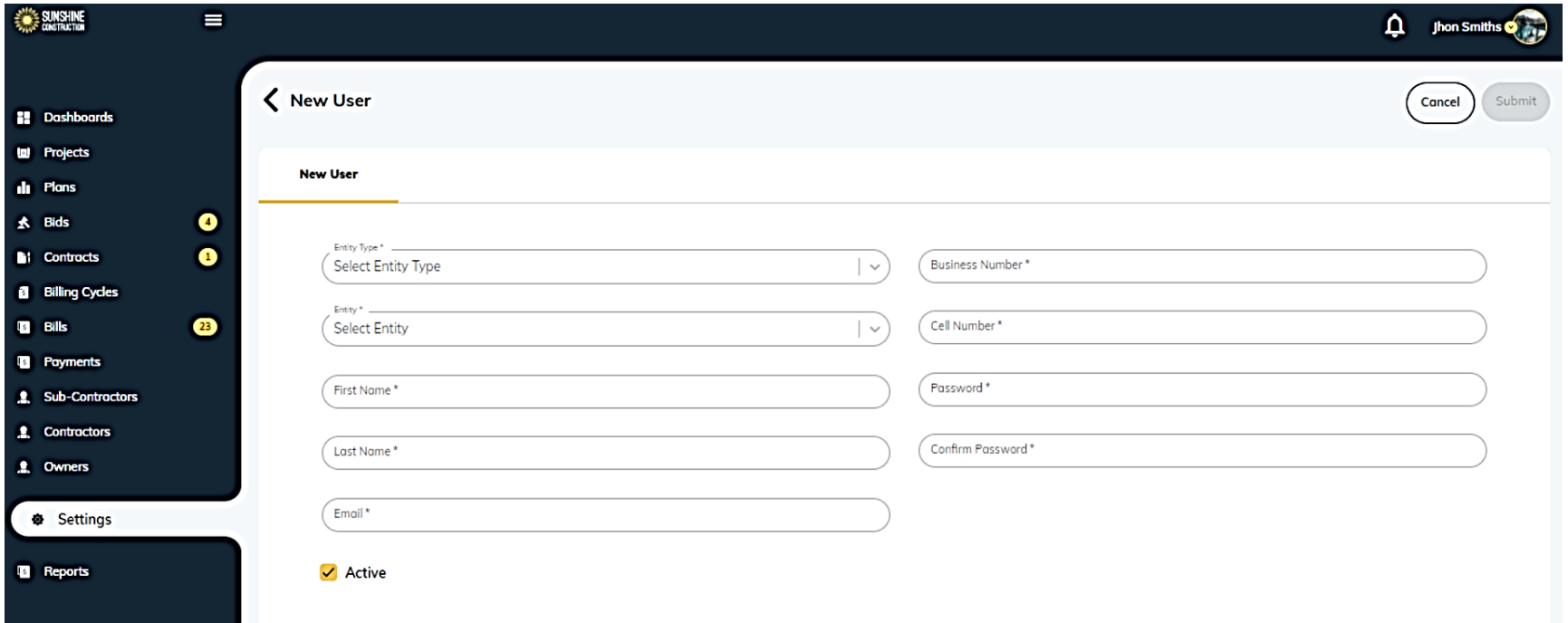
[Submit](#)

Resend Code after [25 Seconds](#)

[Back to Login](#)

Implementation of Task

Signup New User :-



The screenshot displays the 'New User' registration interface within the Sunshine Construction application. The interface features a dark blue sidebar on the left with navigation links: Dashboards, Projects, Plans, Bids (4), Contracts (1), Billing Cycles, Bills (23), Payments, Sub-Contractors, Contractors, Owners, Settings, and Reports. The main content area is titled 'New User' and includes a 'Cancel' button and a 'Submit' button. The form fields are as follows:

- Entity Type ***: A dropdown menu with the text 'Select Entity Type'.
- Entity ***: A dropdown menu with the text 'Select Entity'.
- Business Number ***: A text input field.
- Cell Number ***: A text input field.
- First Name ***: A text input field.
- Password ***: A text input field.
- Last Name ***: A text input field.
- Confirm Password ***: A text input field.
- Email ***: A text input field.

At the bottom of the form, there is a checkbox labeled 'Active' which is currently checked.

Summary of internship - Work done so far

- **JavaScript Concepts:**
 - Asynchronous programming with promises and async/await.
 - Modern ES6+ features.
- **Vue.js Concepts:**
 - **Tasks and Libraries:**
 - Various Vue3-based tasks like Todo App, Validation Form, Currency Calculator.
 - Integration of libraries like vee-validate, vue-draggable, axios, and v-mask.
 - Implementation of infinite scrolling and Tailwind CSS for Admin Panel.
 - Integration of Socket.io for real-time communication in the Chat App.
- **Main Project: Sunshine Construction**
 - Initial development on the Login module with features like forgot password using SMS and email OTP verification.

Summary of internship – Work to be done

- **Contractor Management Module:**
 - Develop system for onboarding, tracking, and paying contractors.
- **Project Tracking Module:**
 - Enhance real-time tracking of project progress and expenses.
- **Bids Management Module:**
 - Implement system for managing project bids and procurement.
- **Billing Module:**
 - Improve billing system for different billing models and automation.
- **Payments Module:**
 - Enhance payment management for various methods and statuses.
- **Email Notifications Module:**
 - Create automated email system for project updates and reminders.

References

- **Vue.js Documentation:** <https://v3.vuejs.org/guide/introduction.html>
- **Node.js Documentation:** <https://nodejs.org/en/docs/>
- **Tailwind CSS Documentation:** <https://tailwindcss.com/docs>
- **jQuery Documentation:** <https://api.jquery.com/>
- **Youtube Source:** [code step by step](#)
- **GeeksforGeeks:** <https://www.geeksforgeeks.org/>

Thank You