**Web Development Workshop** (31/7/24)

**Time**

* Duration: 5-6 hours

**Pre-requisites**

* Familiarity with Visual Studio Code
* Install Visual Studio Code
* Set up a GitHub account
* Familiarity with Version Control(Git)
* Browser Inspection tools

**Curriculum Outline**

**Hour 1: Introduction to Web Development**

* Overview of web development
* Setting up the development environment
* Basics of HTML
* **Activity**: Create a simple web page with basic HTML elements

**Hour 2: Styling with CSS**

* Introduction to CSS and its syntax
* Basic styling: colors, fonts, margins, padding
* Creating a responsive layout using Flexbox
* **Activity**: Style the web page using CSS and implement responsive design

**Hour 3: JavaScript Basics**

* Introduction to JavaScript
* Variables, data types, and operators
* Functions and basic DOM manipulation
* **Activity**: Add interactivity to the web page (e.g., a button that changes the background color)

**Hour 4: Advanced JavaScript and API Integration**

* Event listeners and event handling
* Introduction to APIs and fetching data
* **Activity**: Build a small application that fetches data from a public API and displays it

**Hour 5: Mini Project Development**

* Combining HTML, CSS, and JavaScript skills
* Structuring a small project
* Deploy in GitHub
* **Activity**: Develop a mini project (e.g., a personal portfolio page or a to-do list application)

**Outcomes**

* Participants gained a fundamental understanding of HTML, CSS, and JavaScript.
* Practical experience through hands-on activities and a mini-project.
* Collaboration and problem-solving skills were enhanced during the workshop.

**Hackathon:**

* **Objective**: Apply the skills learned to develop a simple web application in teams.
* **Structure**: Teams of 3-4 members, 24-hour development phase, presentation (if required).

(Tentative topics)

1. **Weather Dashboard:** Create a web app that fetches weather data from a public API and displays the current weather conditions for a user-specified location.
2. **Personal Portfolio Website:** Develop a personal portfolio website that showcases the user's projects, skills, and contact information.
3. **Quiz Application:** Create an interactive quiz application with multiple-choice questions. Users can see their scores at the end of the quiz.
4. **Expense Tracker:** Build a web app that allows users to track their expenses. Users can add, edit, delete, and categorize their expenses.
5. **Recipe Finder:** Develop a web app that fetches and displays recipes based on ingredients input by the user.
6. **Blog Platform:** Create a simple blog platform where users can create, read, update, and delete blog posts.
7. **Digital Resume Builder:** Develop an application that allows users to input their personal and professional details and generate a downloadable resume.
8. **Interactive Storytelling:** Create a web application that tells an interactive story. Users can make choices that affect the outcome of the story.
9. **Fitness Tracker** : Build a web application where users can log their workouts, track their progress, and set fitness goals.