| **SCHOOL OF COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE** | | | | | **DEPARTMENT OF COMPUTER SCIENCE ENGINEERING** | | | | |
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| **Program Name:** B. Tech | | | | **Assignment Type: Lab** | | | **Academic Year:**2025-2026 | | |
| **Course Coordinator Name** | | | | Venkataramana Veeramsetty | | | | | |
| **Instructor(s) Name** | | | | | Dr. V. Venkataramana (Co-ordinator) | | --- | | Dr. T. Sampath Kumar | | Dr. Pramoda Patro | | Dr. Brij Kishor Tiwari | | Dr.J.Ravichander | | Dr. Mohammand Ali Shaik | | Dr. Anirodh Kumar | | Mr. S.Naresh Kumar | | Dr. RAJESH VELPULA | | Mr. Kundhan Kumar | | Ms. Ch.Rajitha | | Mr. M Prakash | | Mr. B.Raju | | Intern 1 (Dharma teja) | | Intern 2 (Sai Prasad) | | Intern 3 (Sowmya) | | NS\_2 ( Mounika) | | | | | | |
| **Course Code** | | | 24CS002PC215 | **Course Title** | | AI Assisted Coding | | | |
| **Year/Sem** | | | II/I | **Regulation** | | R24 | | | |
| **Date and Day**  **of Assignment** | | | Week7 - Monday | **Time(s)** | |  | | | |
| **Duration** | | | 2 Hours | **Applicable to**  **Batches** | |  | | | |
| **AssignmentNumber:14.1**(Present assignment number)/**24**(Total number of assignments) | | | | | | | | | |
|  | | | | | | | | | |
|  | **Q.No.** | **Question** | | | | | | ***Expected Time***  ***to complete*** |  |
|  | 1 | **Lab 14: Web Design Application – AI-Assisted HTML/CSS/JS Generation**  **Lab Objectives**   * Design **functional, visually appealing** web applications using HTML, CSS, and JavaScript with AI assistance. * Apply **responsive, accessible, and interactive design principles**. * Create **practical UI components** for real-world web applications. * Use AI to optimize **layout, UX, and performance**.   **Task 1: AI-Assisted Portfolio Website**  **Scenario:** A student wants to showcase their projects, skills, and contact details in a portfolio website. Instead of writing all code manually, they want to speed up the process using GitHub Copilot.   * Use Copilot to generate an **HTML structure** for a personal portfolio page (sections: Home, About, Projects, Contact). * Ask Copilot to suggest **responsive CSS styling** for the layout (e.g., grid/flexbox). * Customize Copilot’s suggestions to add a **hover effect** on project cards.   **Prompt: Generate a responsive personal portfolio webpage using HTML and CSS with sections: Home, About, Projects, and Contact. Use semantic HTML5, Flexbox/Grid for layout, and add hover effects on project cards. Include a navbar, contact form, and footer. Suggest responsive CSS using flexbox/grid for the portfolio layout**   * Code:           **Output:**          **Task 2: AI-Generated Restaurant Landing Page**  **Scenario:** A local restaurant needs a simple landing page with a navigation bar, menu highlights, and an image gallery. The developer wants to quickly generate it using AI assistance.   * Use Copilot to create a **navigation bar with links** (Home, Menu, Gallery, Contact). * Generate a **menu section** styled with CSS cards. * Add a **JavaScript-based image slider** for the gallery, with Copilot suggesting the base code.   **Prompt:** Create a simple restaurant landing page with a navigation bar containing links (Home, Menu, Gallery, Contact). Below that, add a “Menu Highlights” section styled with CSS cards for dishes. Finally, create an image gallery with a JavaScript-based image slider (auto-sliding every 3 seconds) and navigation arrows. Make the design clean and modern using HTML, CSS, and JavaScript—all in one file.  Code:              **Task 3: AI-Powered Event Registration Form**  **Scenario:** SR University is hosting a tech fest. They need a web-based registration form for students. The form must validate user input in real-time.   * Ask Copilot to generate an **HTML form** (fields: Name, Email, Phone, Department, Event Selection). * Use Copilot to assist in adding **CSS styling** for an attractive form layout. * Implement **JavaScript validation** (e.g., email format check, phone number length check) using Copilot’s suggestions. * **Prompt: Create a web-based event registration form for SR University’s tech fest. The form should include fields for Name, Email, Phone, Department, and Event Selection. Add attractive CSS styling for a modern layout. Use JavaScript for real-time validation — check that the email is in a valid format and the phone number has exactly 10 digits. Display error messages dynamically below each field. Include a submit button that shows a success message when all validations pass.**   Code:            **Output:**    **Task 4: AI-Assisted E-Commerce Product Page**  **Scenario:** A startup wants a basic **e-commerce product page** to display products with prices and an “Add to Cart” button.   * Use Copilot to generate a **grid-based product catalog** in HTML/CSS. * Implement a **JavaScript “Add to Cart” functionality** with Copilot’s guidance. * Modify Copilot’s suggestions to include a **cart counter** at the top-right corner of the page.   **Prompt:**  Create a simple e-commerce product page using HTML, CSS, and JavaScript. Use a grid layout to display multiple products with images, names, prices, and an “Add to Cart” button. Implement JavaScript functionality to update a cart counter at the top-right corner whenever a product is added. Style the page with a modern look using soft colors and hover effects. Include 4–6 sample products.  Code:            **Output:** | | | | | | Week 7 - Friday |  |