|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SCHOOLOFCOMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE** | | | | | **DEPARTMENTOFCOMPUTER SCIENCE ENGINEERING** | | | | |
| **ProgramName: M**. Tech/MCA/MSC | | | | **AssignmentType: Lab** | | | **AcademicYear:**2025-2026 | | |
| **CourseCoordinatorName** | | | | Venkataramana Veeramsetty | | | | | |
| **CourseCode** | | |  | **CourseTitle** | | AI Assisted Problem Solving Using Python | | | |
| **Year/Sem** | | | II/I | **Regulation** | | R25 | | | |
| **DateandDay**  **of Assignment** | | | Week5 - Tuesday | **Time(s)** | |  | | | |
| **Duration** | | | 2 Hours | **Applicableto**  **Batches** | | **M**. Tech/MCA/MSC | | | |
| **AssignmentNumber:14.3**(Presentassignmentnumber)/**24**(Totalnumberofassignments) | | | | | | | | | |
|  | **Q.No.** | **Question** | | | | | | ***ExpectedTime***  ***to complete*** |  |
|  | 1 | Lab 14 – Web Frontend Development: AI-assisted HTML/CSS/JS with Python  **Lab Objectives**   * To understand how AI can generate HTML/CSS/JS templates. * To practice integrating frontend and backend (Python) for small apps. * To evaluate AI-generated code for readability, reusability, and responsiveness.   **Learning Outcomes**  After completing this lab, students will be able to:   1. Generate HTML/CSS layouts using AI tools. 2. Add JavaScript interactivity with AI suggestions. 3. Integrate basic Python (Flask/Streamlit) backend to serve frontend. 4. Evaluate AI-generated web code for responsiveness and usability. 5. Debug and refine AI-generated frontend code.   **Task Description #1 – AI-generated HTML Page**  Task: Ask AI to generate a simple **HTML homepage** for a "Student Info Portal" with a header, navigation menu, and footer.  **Expected Output:**   * HTML code with <header>, <nav>, <footer>. * Clean indentation, proper tags, and comments.   **Code:**  C:\Users\pujar\OneDrive\Pictures\Screenshots\Screenshot 2025-11-30 184204.png  C:\Users\pujar\OneDrive\Pictures\Screenshots\Screenshot 2025-11-30 184218.png  C:\Users\pujar\OneDrive\Pictures\Screenshots\Screenshot 2025-11-30 204629.png  **Output:**  C:\Users\pujar\OneDrive\Pictures\Screenshots\Screenshot 2025-11-30 184107.png  **Task Description #2 – CSS Styling**  **Task:** Use AI to add **CSS styling** to Task #1 homepage for:   * Responsive navigation bar. * Centered content section. * Footer with light gray background.   **Expected Output:**   * HTML + CSS combined. * AI explains how CSS classes apply.   **Expected Output:** AI refactors with withopen() and try-except:  **Code:**  C:\Users\pujar\OneDrive\Pictures\Screenshots\Screenshot 2025-11-30 204819.png  C:\Users\pujar\OneDrive\Pictures\Screenshots\Screenshot 2025-11-30 204846.png  **Output:**  C:\Users\pujar\OneDrive\Pictures\Screenshots\Screenshot 2025-11-30 205101.png  **Task Description #3 – JavaScript Interactivity**  **Task:** Prompt AI to generate a JS script that validates a simple login form (non-empty username/password).  **Expected Output:**  Working on submit JS validation.  Clear error messages if inputs are empty.  **Code:**  C:\Users\pujar\OneDrive\Pictures\Screenshots\Screenshot 2025-11-30 205345.png  C:\Users\pujar\OneDrive\Pictures\Screenshots\Screenshot 2025-11-30 205407.png  **Output:**  C:\Users\pujar\OneDrive\Pictures\Screenshots\Screenshot 2025-11-30 205250.png  **Task Description #4 – Python Backend Integration**  Task: Ask AI to generate a Flask app that serves the HTML form (Task #3) and prints the username on successful login.  **Code:**  C:\Users\pujar\OneDrive\Pictures\Screenshots\Screenshot 2025-11-30 203753.png  **Output:**  C:\Users\pujar\OneDrive\Pictures\Screenshots\Screenshot 2025-11-30 185011.png  C:\Users\pujar\OneDrive\Pictures\Screenshots\Screenshot 2025-11-30 190053.png  C:\Users\pujar\OneDrive\Pictures\Screenshots\Screenshot 2025-11-30 190526.png | | | | | | Week5 - Tuesday |  |