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| **SCHOOLOFCOMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE** | | | | | **DEPARTMENTOFCOMPUTER SCIENCE ENGINEERING** | | | | |
| **ProgramName:**B. Tech | | | | **AssignmentType: Lab** | | | **AcademicYear:**2025-2026 | | |
| **CourseCoordinatorName** | | | | 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) | | | | | | |
| **CourseCode** | | | 24CS002PC215 | **CourseTitle** | | AI Assisted Coding | | | |
| **Year/Sem** | | | II/I | **Regulation** | | R24 | | | |
| **DateandDay**  **of Assignment** | | | Week8 - WednesDay | **Time(s)** | |  | | | |
| **Duration** | | | 2 Hours | **Applicableto**  **Batches** | |  | | | |
| **AssignmentNumber:16.3**(Presentassignmentnumber)/**24**(Totalnumberofassignments) | | | | | | | | | |
|  | **Q.No.** | **Question** | | | | | | ***ExpectedTime***  ***to complete*** |  |
|  | 1 | **Lab 16 – Database Design and Queries: Schema Design and SQL Generation**  **Lab Objectives**   * To practice basic SQL query generation with AI assistance. * To analyze AI-suggested queries for correctness and efficiency. * To understand how AI can help in documenting and improving database logic.   **Learning Outcomes**  After completing this lab, students will be able to:   1. Use AI tools to design a simple ER diagram / schema for a given scenario. 2. Generate CREATE TABLE statements using AI. 3. Write and refine basic SQL queries (SELECT, INSERT, UPDATE, DELETE). 4. Validate correctness and efficiency of AI-generated SQL. 5. Compare AI-generated vs manually written queries.   **Task Description #1 – Schema Generation**  Task: Ask AI to design a schema for a Library Management System (Tables: Books, Members, Loans).  **SQL Code**    PROMPT:   **Design Schema**   * + Create SQL CREATE TABLE statements for:   + Books   + Members   + Loans   **Screenshot**:    **Task Description #2 – Error Insert Data**  Task: Ask AI to generate INSERT INTO queries for the schema above (3 sample records per table).  PROMPT:  ** Insert Sample Data**   * + Write INSERT INTO queries   + Add **3 sample records** for each table   **Screenshot:**    **Task Description #3 – Basic Queries**  Task: Use AI to generate a query to list all books borrowed by a specific member.  PROMPT:  Generate a query to list all books borrowed by a specific member.  **Screenshot**:    **Task Description #4 – Update and Delete Queries**  Task: Generate queries with AI for:   * Updating a book’s availability to FALSE when borrowed. * Deleting a member record safely.   PROMPT:  **Update Query**   * + Write a query to update a book’s availability to FALSE when it is borrowed   **Delete Query**  Write a query to safely delete a member record (handle foreign key constraints).  **Screenshot:**  **1.**    **2.** | | | | | | Week5 - Monday |  |