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| **SCHOOL OF COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE** | | | | | **DEPARTMENT OF COMPUTER SCIENCE ENGINEERING** | | | |
| **Program Name:** B. Tech | | | | **Assignment Type: Lab** | | | **AcademicYear:**2025-2026 | |
| **Course Coordinator Name** | | | | Venkataramana Veeramsetty | | | | |
| **Instructor(s)Name** | | | | 1. Dr. Mohammed Ali Shaik  2. Dr. T Sampath Kumar  3. Mr. S Naresh Kumar  4. Dr. V. Rajesh  5. Dr. Brij Kishore  6. Dr Pramoda Patro  7. Dr. Venkataramana  8. Dr. Ravi Chander  9. Dr. Jagjeeth Singh | | | | |
| **CourseCode** | | | 24CS002PC215 | **CourseTitle** | | AI Assisted Coding | | |
| **Year/Sem** | | | II/I | **Regulation** | | R24 | | |
| **Date and Day**  **of Assignment** | | | 06-08-2025 | **Time(s)** | |  | | |
| **Duration** | | | 2 Hours | **Applicable to**  **Batches** | | 24CSBTB01 To 24CSBTB39 | | |
| **AssignmentNumber:2.5**(Present assignment number)/**24**(Total number of assignments) | | | | | | | | |
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|  | **Q.No.** | **Question** | | | | | | ***ExpectedTime***  ***to complete*** |  |
|  | 1 | **Lab 2: Additional AI Coding Tools and API Configurations**  **Objective:** To build a simple AI weather chatbot that fetches real-time weather data using the OpenWeatherMap API and responds to natural language queries using basic NLP techniques.  Suppose that you are working as a junior developer in an AI services startup. Your team is building a smart assistant for travelers to get weather updates by simply asking questions like “What’s the weather in Mumbai?” or “Is it raining in New York?”  Tasks to be completed are as below  1.API Configuration:   * Register for a free OpenWeatherMap API key. * Read the documentation and test API calls using tools like Postman or Python requests. * CODE: * OUTPUT:   2. NLP Integration:   * Use spaCy or NLTK to extract city names from user input. * Convert natural language queries to appropriate API parameters. * CODE: * OUTPUT:   3. Chatbot Design:   * Develop a basic chatbot using Python with user input and response cycles. * Integrate it with OpenWeatherMap API to display temperature, condition, and humidity. * CODE: * OUTPUT:   **Requirements:**   * VS Code with Github Copilot or Cursor API and/or Google Colab with Gemini   **Deliverables:**   * A working Python script or notebook. * A short video demo or screenshot of chatbot interaction. * A markdown file with steps followed and challenges faced.   . | | | | | | 01.08.2025 EOD |  |