

SCHOOL OF COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE		DEPARTMENT OF COMPUTER SCIENCE ENGINEERING	
ProgramName: B. Tech		Assignment Type: Lab	AcademicYear:2025-2026
CourseCoordinatorName		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	Week2-Tuesday	Time(s)	
Duration	2 Hours	Applicable to Batches	24CSBTB01 To 24CSBTB39
AssignmentNumber: 3.2(Present assignment number)/24(Total number of assignments)			

Q.No.	Question	Expected Time to complete
1	<p>Lab 3: Prompt Engineering – Improving Prompts and Context Management</p> <p><b>Lab Objectives:</b></p> <ul style="list-style-type: none"> <li>To understand how prompt structure and wording influence AI-generated code.</li> <li>To explore how context (like comments and function names) helps AI generate relevant output.</li> <li>To evaluate the quality and accuracy of code based on prompt clarity.</li> <li>To develop effective prompting strategies for AI-assisted programming.</li> </ul> <p><b>Lab Outcomes (LOs):</b> After completing this lab, students will be able to:</p> <ul style="list-style-type: none"> <li>Generate Python code using Google Gemini in Google Colab.</li> <li>Analyze the effectiveness of code explanations and suggestions by Gemini.</li> <li>Set up and use Cursor AI for AI-powered coding assistance.</li> </ul>	03.08.2025 EOD

- Evaluate and refactor code using Cursor AI features.
- Compare AI tool behavior and code quality across different platforms.

#### Task Description#1

- Ask AI to write a function to calculate compound interest, starting with only the function name. Then add a docstring, then input-output example

#### Expected Output#1

- Comparison of AI-generated code styles

#### Task Description#2

- Do math stuff, then refine it to: # Write a function to calculate average, median, and mode of a list of numbers.

#### Expected Output#2

- AI-generated function evolves from unclear to accurate multi-statistical operation.

#### Task Description#3

- Provide multiple examples of input-output to the AI for convert\_to\_binary(num) function. Observe how AI uses few-shot prompting to generalize.

#### Expected Output#3

- Enhanced AI output with clearer prompts

#### Task Description#4

- Create an user interface for an hotel to generate bill based on customer requirements

#### Expected Output#4

- Consistent functions with shared logic

#### Task Description#5

- Analyzing Prompt Specificity: Improving Temperature Conversion Function with Clear Instructions

#### Expected Output#5

- Code quality difference analysis for various prompts

**Note: Report should be submitted a word document for all tasks in a single document with prompts, comments & code explanation, and output and if required, screenshots**

#### Evaluation Criteria:

Criteria	Max Marks
Task#1	0.5
Task#2	0.5
Task #3	0.5
Task #4	0.5
Task #5	0.5
<b>Total</b>	<b>2.5 Marks</b>