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		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
Date and Day of Assignment	Week3 - Wednesday	**Time(s)**	
Duration	2 Hours	**Applicableto Batches**	
AssignmentNumber:6.3(Present assignment number)/**24**(Total number of assignments)			

Q.No.	Question	*ExpectedTime to complete*
1	Lab 6: AI-Based Code Completion – Classes, Loops, and Conditionals **Lab Objectives:** • To explore AI-powered auto-completion features for core Python constructs. • To analyze how AI suggests logic for class definitions, loops, and	Week3 - Wednesday

conditionals.
- To evaluate the completeness and correctness of code generated by AI assistants.

Lab Outcomes (LOs):
After completing this lab, students will be able to:

- Use AI tools to generate and complete class definitions and methods.
- Understand and assess AI-suggested loops for iterative tasks.
- Generate conditional statements through prompt-driven suggestions.
- Critically evaluate AI-assisted code for correctness and clarity.

Task Description#1 (Classes)
- Use AI to complete a Student class with attributes and a method.
- Check output
- Analyze the code generated by AI tool

Expected Output#1
- Class with constructor and display_details() method

Task Description#2 (Loops)
- Prompt AI to complete a function that prints the first 10 multiples of a number using a loop.
- Analyze the generated code
- Ask AI to generate code using other controlled looping

Expected Output#2
- Correct loop-based implementation

Task Description#3 (Conditional Statements)
- Ask AI to write nested if-elif-else conditionals to classify age groups.
- Analyze the generated code
- Ask AI to generate code using other conditional statements

Expected Output#3
- Age classification function with appropriate conditions and with explanation

Task Description#4 (For and While loops)
- Generate a sum_to_n() function to calculate sum of first n numbers
- Analyze the generated code
- Get suggestions from AI with other controlled looping

Expected Output#4
- Python code with explanation

Task Description#5 (Class)
- Use AI to build a BankAccount class with deposit, withdraw, and

balance methods.

- Analyze the generated code
- Add comments and explain code

Expected Output#5

- Python code with explanation

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

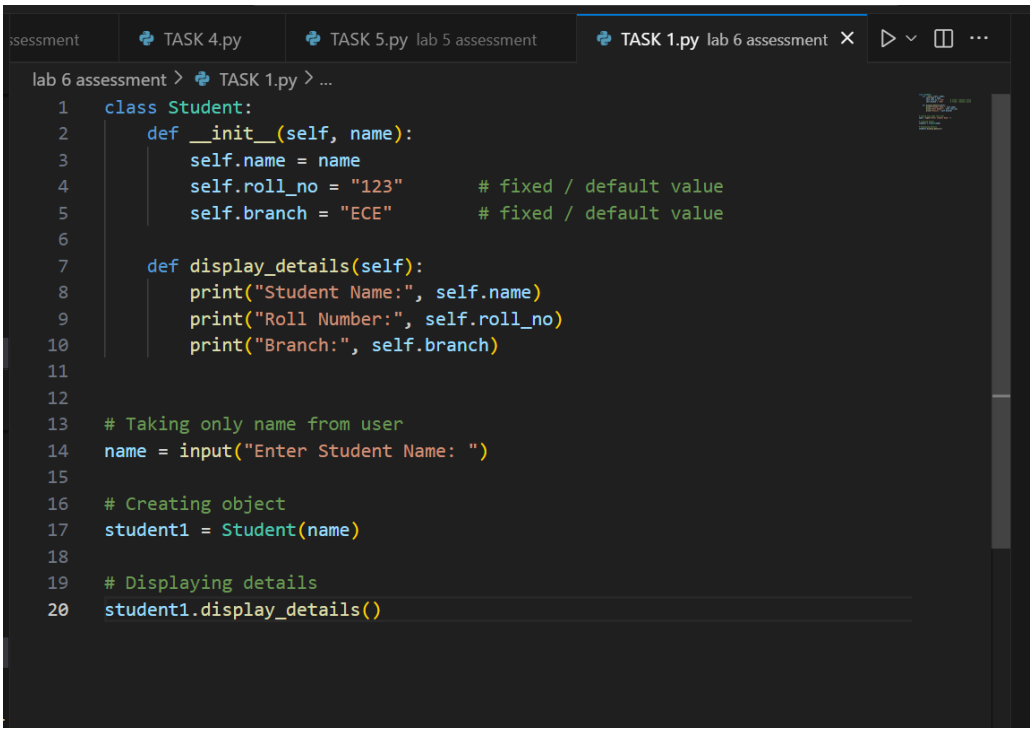
Evaluation Criteria:

Criteria	Max Marks
Class	1.0
Loops	1.0
Conditional Statements	0.5
Total	**2.5 Marks**

Task Description#1 (Classes)

- Use AI to complete a Student class with attributes and a method.
- Check output
- Analyze the code generated by AI tool

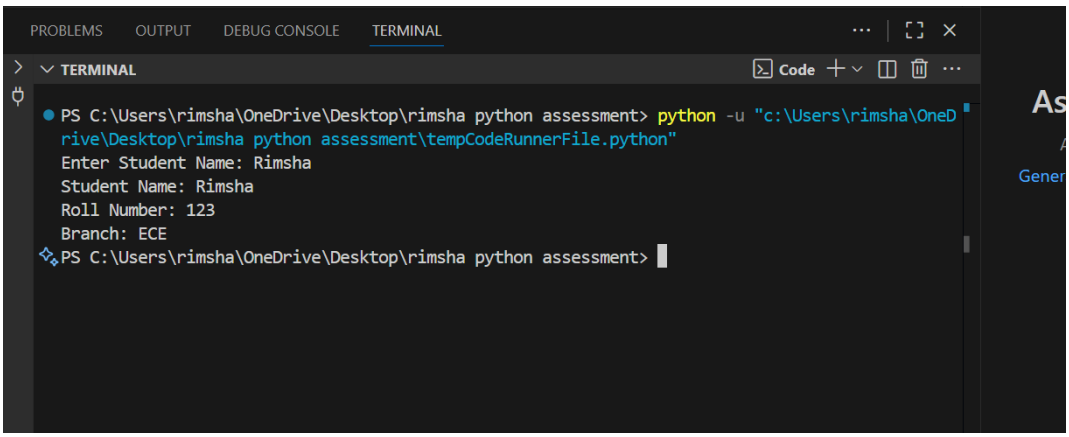
PROMPT: Create a Python Student class with attributes and a method to display the student details.



Expected Output#1

- Class with constructor and display_details() method

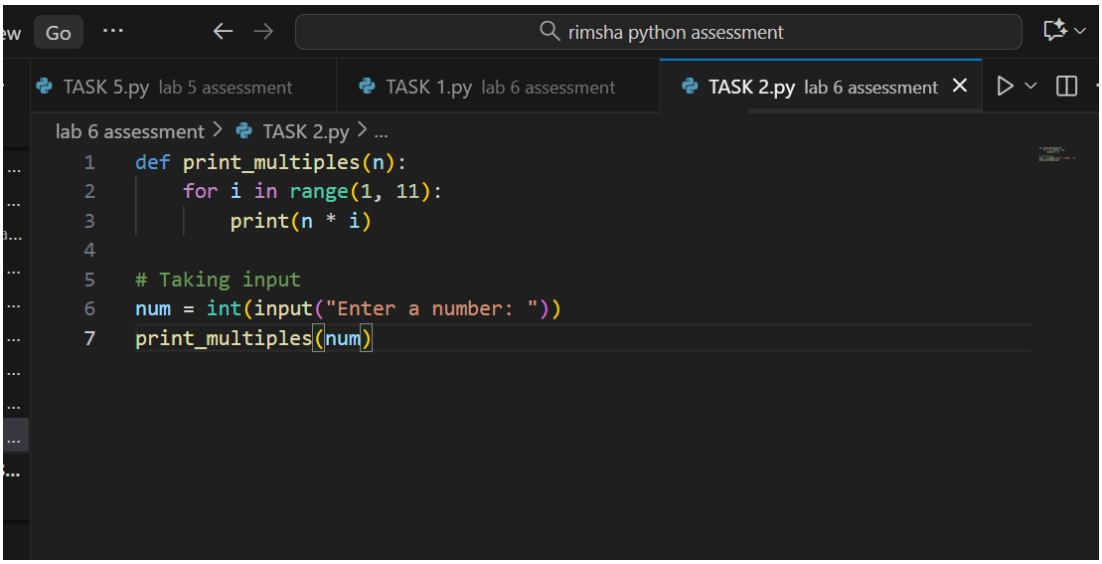
Practical Output:



Task Description#2 (Loops)

- Prompt AI to complete a function that prints the first 10 multiples of a number using a loop.
- Analyze the generated code
- Ask AI to generate code using other controlled looping

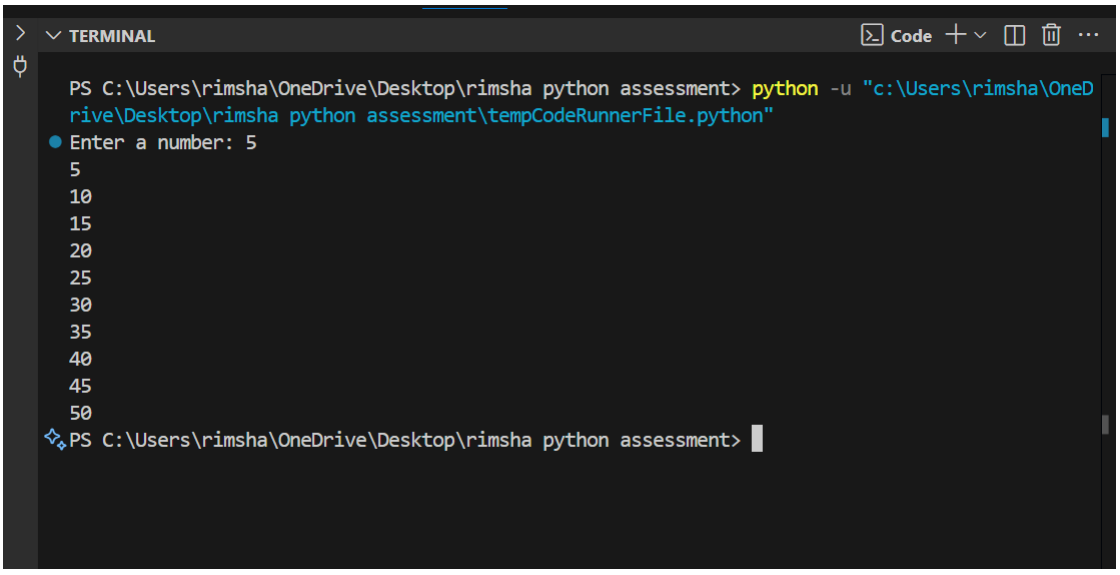
PROMPT: Prompt AI to complete a function that prints the first 10 multiples of a number using a loop.



Expected Output#2

- Correct loop-based implementation

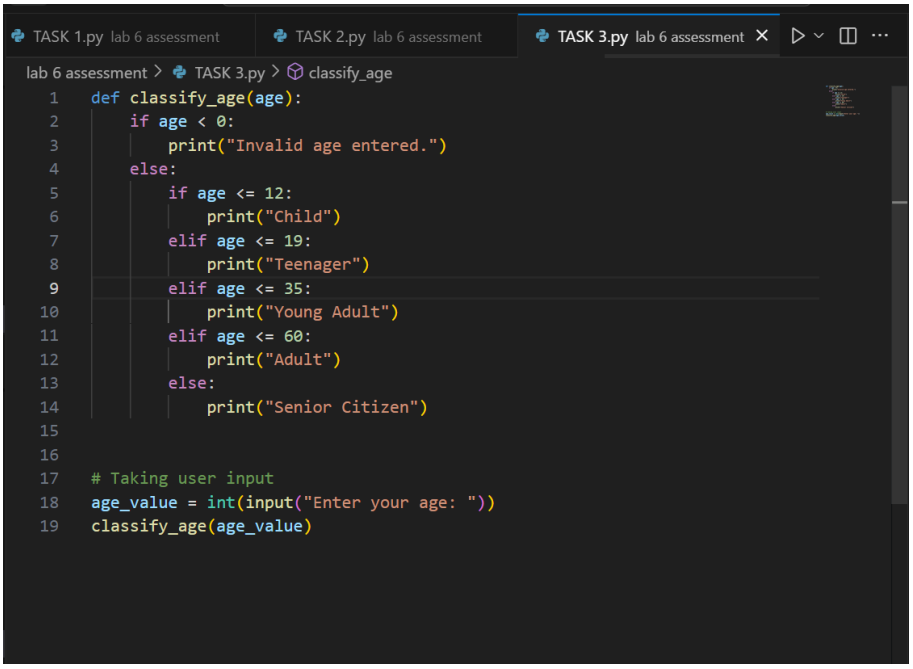
Practical output:



Task Description#3 (Conditional Statements)

- Ask AI to write nested if-elif-else conditionals to classify age groups.
- Analyze the generated code
- Ask AI to generate code using other conditional statements

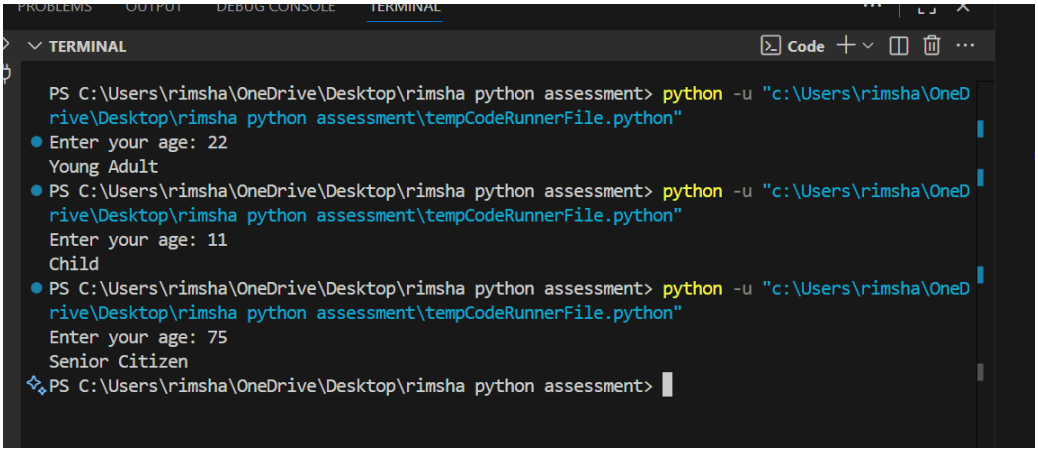
PROMPT: Write Python code to classify age using nested if-elif-else, then explain



Expected Output#3

- Age classification function with appropriate conditions and with explanation

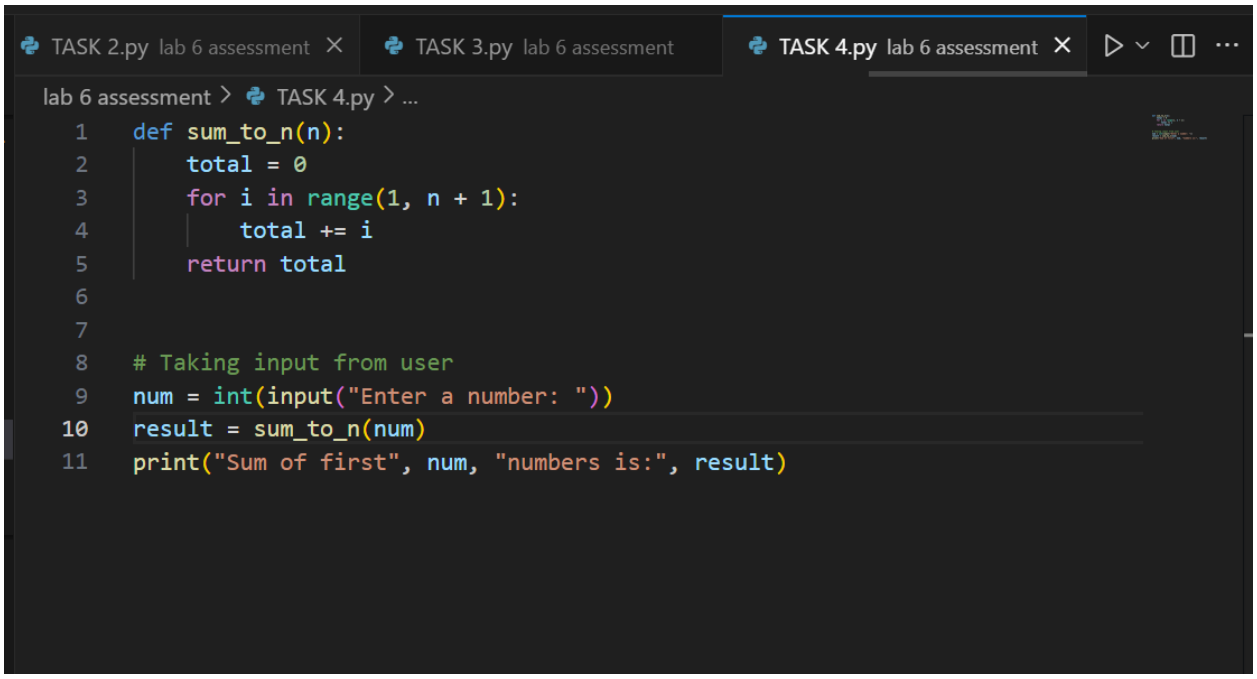
Practical output:



Task Description#4 (For and While loops)

- Generate a sum_to_n() function to calculate sum of first n numbers
- Analyze the generated code
- Get suggestions from AI with other controlled looping

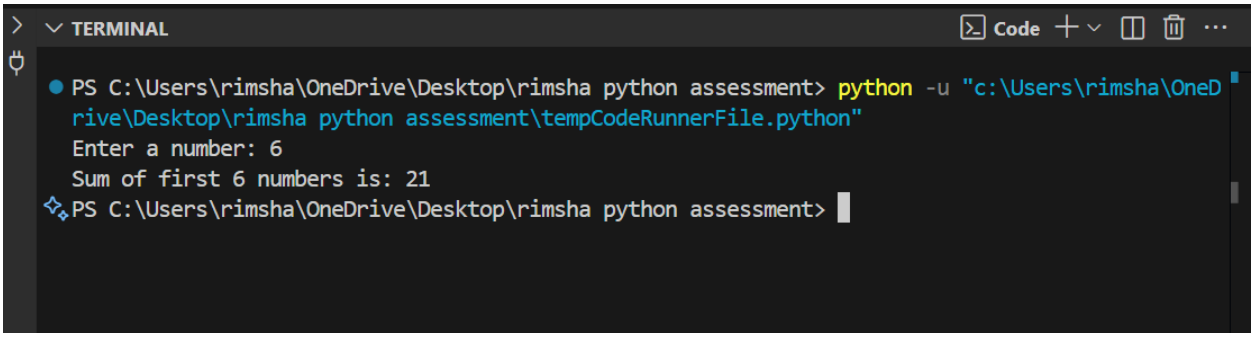
PROMPT: Write a sum_to_n() function in Python to sum first n numbers using a loop.



Expected Output#4

- Python code with explanation

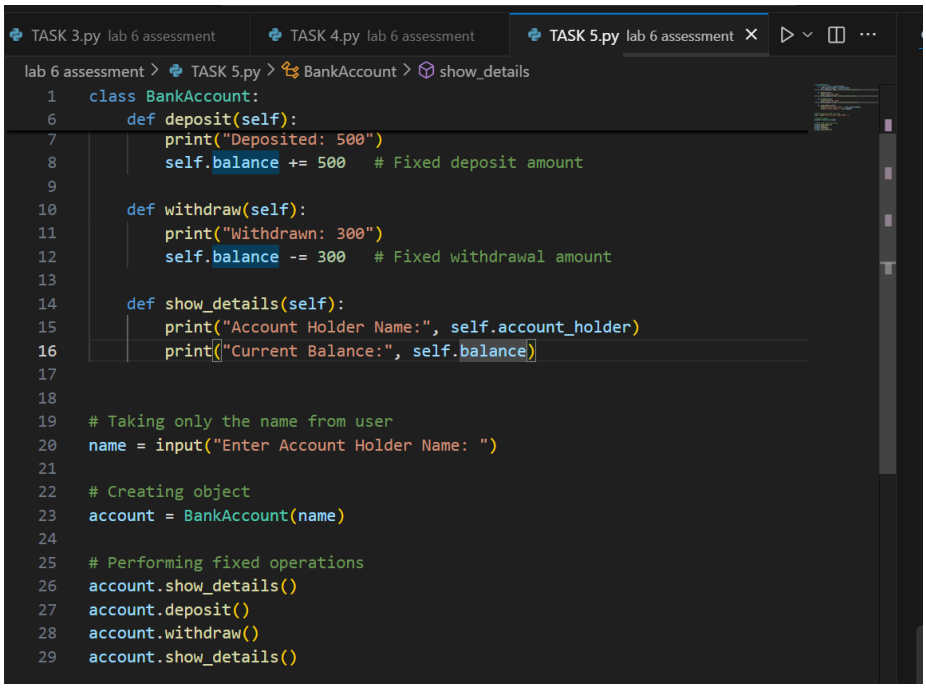
Practical output:



Task Description#5 (Class)

- Use AI to build a BankAccount class with deposit, withdraw, and balance methods.
- Analyze the generated code
- Add comments and explain code

PROMPT: Create a Python BankAccount class with deposit, withdraw, and check_balance methods.



Expected Output#5

- Python code with explanation

Practical output: