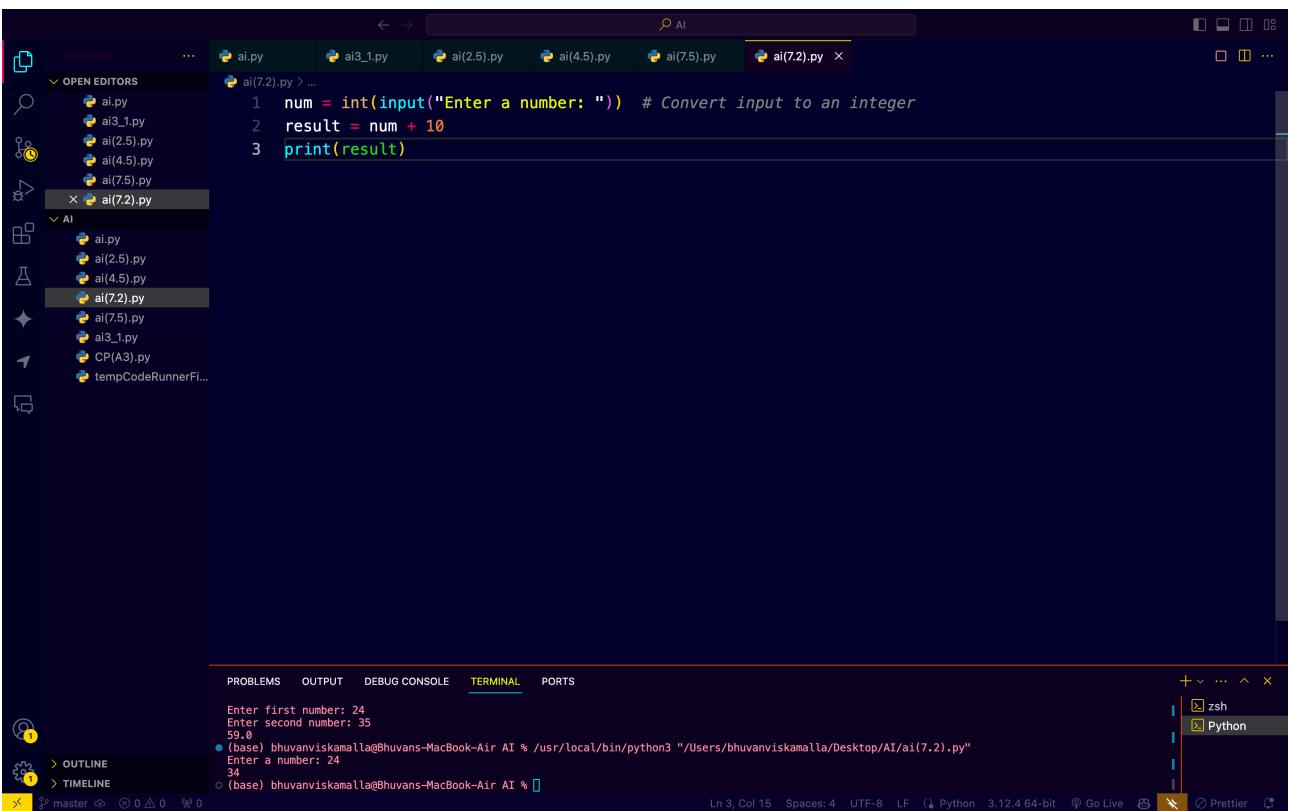


**ASSIGNMENT-7.2**  
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**ROLLNO: 2306A91001**  
**BATCH:30**

## **TASK-1 PROMPT:**

```
num = input("Enter a number: ")  
result = num + 10  
print(result)
```

## **CODE:**



The screenshot shows the Visual Studio Code (VS Code) interface with the AI extension installed. The Explorer sidebar on the left lists several Python files: ai.py, ai(2.5).py, ai(4.5).py, ai(7.5).py, ai(3.1).py, ai(4.5).py, ai(7.2).py, and ai(7.5).py. The main code editor window displays the following Python code:

```
1 num = int(input("Enter a number: ")) # Convert input to an integer  
2 result = num + 10  
3 print(result)
```

The terminal at the bottom shows the execution of the code:

```
Enter first number: 24  
Enter second number: 35  
59.0  
● (base) bhuvaniskamalla@Bhuvans-MacBook-Air AI % /usr/local/bin/python3 "/Users/bhuvaniskamalla/Desktop/AI/ai(7.2).py"  
● (base) bhuvaniskamalla@Bhuvans-MacBook-Air AI % 34  
● (base) bhuvaniskamalla@Bhuvans-MacBook-Air AI %
```

The status bar at the bottom indicates the file is 3.12.4 64-bit, Python 3.12.4 64-bit, and Go Live.

## OBSERVATION:

The program was executed successfully. It accepts a number from the user using the input function. The entered value is added to 10 and the result is displayed. The output verifies the execution of input handling and addition operation in the program.

## TASK-2

### PROMPT:

```
def square(n):result = n * n  
return result
```

### CODE:

A screenshot of the Visual Studio Code interface. The code editor shows a Python script named `ai(7.2).py` with the following content:

```
1 num = int(input("Enter a number: ")) # Convert input to an integer  
2 result = num + 10  
3 print(result)  
4  
5 def square(n):  
6     result = n * n # Indented the line to fix the expected indented block error  
7     return result # Added return statement to access "n"  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
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20  
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23  
24  
25  
26  
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28  
29  
30  
31  
32  
33  
34  
35
```

The terminal at the bottom shows the command `/usr/local/bin/python3 "/Users/bhuvaniskamalla/Desktop/AI/ai(7.2).py"` and the user's input `Enter a number: 5`. The output shows the result `15`.

## OBSERVATION:

The function square(n) was executed successfully. It accepts a number as an argument, calculates its square by multiplying the number with itself, and returns the result. The function works correctly and produces the expected output.

## TASK-3

### PROMPT:

```
numbers = [10, 20, 30]
for i in range(0, len(numbers)):
    print(numbers[i])
```

### CODE:

A screenshot of the Visual Studio Code (VS Code) interface. The code editor shows a Python script named 'ai(7.2).py' with the following content:

```
12
13 numbers = [10, 20, 30]
14 for i in range(0, len(numbers)):
15     print(numbers[i]) # Fixed indentation
16
```

The terminal at the bottom shows the output of running the script:

```
20
30
10
20
30
```

The file explorer on the left shows several other Python files in the 'OPEN EDITORS' and 'AI' folders.

## OBSERVATION:

The program was executed successfully. A list of numbers was created and a for loop was used to iterate through each element using index values. Each number in the list was printed as output. The results confirm that the loop and list operations are functioning correctly.

## TASK-4

### PROMPT:

total = 60

if True:

print(total)

### CODE:

A screenshot of the Visual Studio Code (VS Code) interface. The code editor shows a Python script named `ai(7.2).py` with the following content:

```
12
13 numbers = [10, 20, 30]
14 for i in range(0, len(numbers)):
15     print(numbers[i]) # Fixed indentation
16
17 if True:
18     total = sum(numbers) # Define total as the sum of numbers
19     print(total) # Print the total
20
```

The terminal at the bottom shows the output of running the script:

```
(base) bhuvaniskamalla@Bhuvans-MacBook-Air AI % /usr/local/bin/python3 "/Users/bhuvaniskamalla/Desktop/AI/ai(7.2).py"
10
20
30
60
(base) bhuvaniskamalla@Bhuvans-MacBook-Air AI %
```

## OBSERVATION:

The program was executed successfully. A variable was assigned a value and an if condition was used to check the statement. Since the condition is True, the value of the variable was printed. The output confirms the correct working of conditional statements in the program.

## TASK-5

### PROMPT:

```
marks = 85
if marks >= 90:
    grade = "A"
elif marks >= 80:
    grade = "C"
else:
    grade = "B"
print(grade)
```

### CODE:

The screenshot shows the Visual Studio Code interface. In the Explorer sidebar, there are several Python files listed under the 'OPEN EDITORS' section, including 'ai.py', 'ai3\_1.py', 'ai(2.5).py', 'ai(4.5).py', 'ai(7.5).py', and 'ai(7.2).py'. The 'ai(7.2).py' file is currently open in the editor. The code in the editor is:

```
26 marks = 85
27 if marks >= 90:
28     grade = "A" # Added indentation
29 elif marks >= 80: # Fixed indentation
30     grade = "B" # Changed grade to "B" for marks >= 80
31 else:
32     grade = "C" # Changed grade to "C" for marks < 80
33 print[grade]
```

In the Terminal tab, the output of running the script is shown:

```
30
60
● (base) bhuvanviskamalla@Bhuvans-MacBook-Air AI % /usr/local/bin/python3 "/Users/bhuvanviskamalla/Desktop/AI/ai(7.2).py"
B
● (base) bhuvanviskamalla@Bhuvans-MacBook-Air AI % /usr/local/bin/python3 "/Users/bhuvanviskamalla/Desktop/AI/ai(7.2).py"
B
● (base) bhuvanviskamalla@Bhuvans-MacBook-Air AI %
```

The status bar at the bottom indicates the code is in Python 3.12.4 64-bit environment.

## OBSERVATION:

The program was executed successfully. It assigns marks to a variable and uses conditional statements to determine the grade. Based on the given condition, the appropriate grade is selected and displayed. The output confirms the correct working of the if-elif-else control structure.