ASSIGNMENT 6.5

Perumalla Sushwanth

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batch 29

2) AI-Based code completion for loop - Based string processing

code:

```python
#vote eligibility
age = int(input("Enter your age: "))
if age >= 18:
    print("You are eligible to vote.")
else:
    print("You are not eligible to vote.")

```

output:

```
PS C:\Users\perum\OneDrive\Desktop\New folder>  & 'c:\Users\perum\AppD
on.debugpy-2025.18.0-win32-x64\bundled\libs\debugpy\launcher' '54870'
Enter your age: 12
You are not eligible to vote.
PS C:\Users\perum\OneDrive\Desktop\New folder>
```

2) AI-Based Code Completion for loop based string processing

prompt:

count vowels and consonants in a string using a loop.

code

```
#count vowels and consonants in a string
text = input("Enter a string: ")
vowels = 0
consonants = 0
for char in text:
    if char.isalpha():
        if char.lower() in 'aeiou':
            vowels += 1
        else:
            consonants += 1
print("Number of vowels:", vowels)
print("Number of consonants:", consonants)
sus
```

output

```
PS C:\Users\perum\OneDrive\Desktop\New folder>  c:; cd 'c:\Users\perum\OneDrive\Desktop\New folder'; & 'c:\Users\perum\AppData\Local\Programs\Python\Python312\python.exe' 'c:\Users\perum\.vscode\extensions\ms-python.debugpy-2025.18.0-win32-x64\bundled\libs\debugpy\launcher' '60286' '--' 'C:\Users\perum\OneDrive\Desktop\New folder\ai_assistedcoding\lab_6.5'
Enter a string: sushwanth
Number of vowels: 2
Number of consonants: 7
PS C:\Users\perum\OneDrive\Desktop\New folder>
```

3.Use an AI tool to generate a complete program using classes loops and conditions

prompt:

Generate a Python program for a library management system using classes, loops, and conditional statements.

code

```python
# Create a beginner-friendly Python Library Management System using classes, loops, and conditional statements with Book and Library
class Library:
    def __init__(self):
        self.books = ["Python", "Java"]
lib = Library()
while True:
    print("\n1.Show Books  2.Issue Book  3.Exit")
    ch = input("Choice: ")
    if ch == "1":
        for b in lib.books:
            print(b)
    elif ch == "2":
        book = input("Book name: ")
        if book in lib.books:
            lib.books.remove(book)
            print("Book issued")
        else:
            print("Not available")
    elif ch == "3":
        print("Bye")
        break
    else:
        print("Wrong choice")
```

output

4) Use an ai tool to generate an attendance management class

prompt:

Generate a Python class to mark and display student attendance using loops

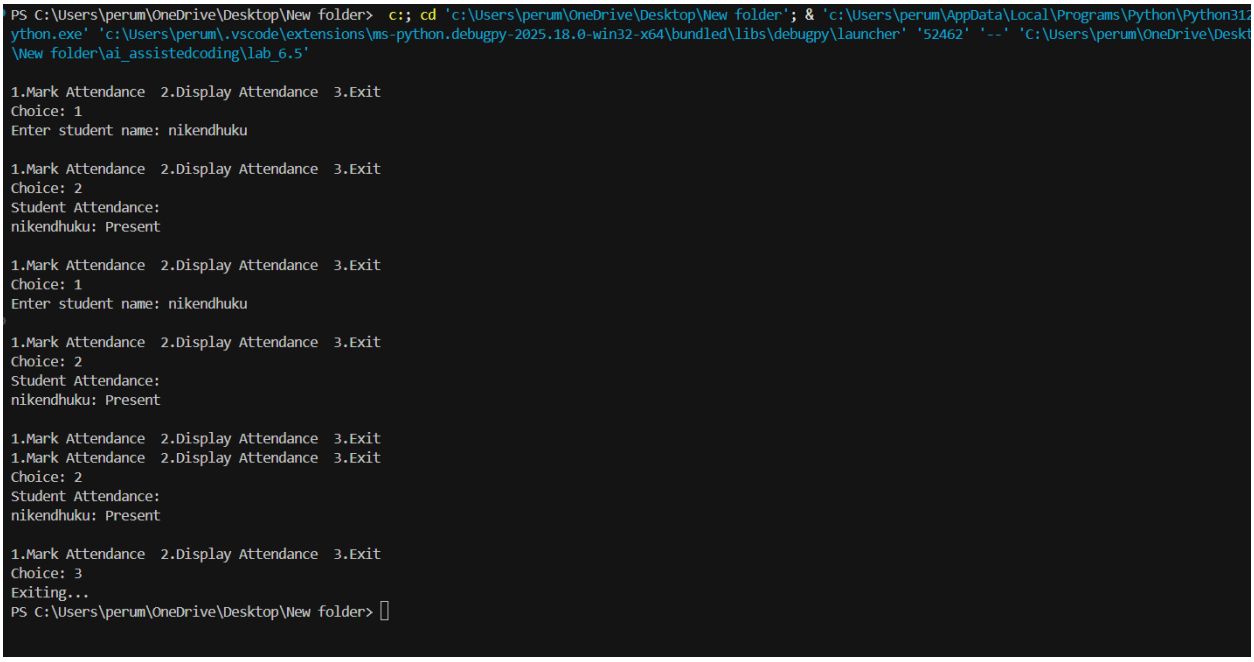
code:

```python
#Generate a Python class to mark and display student attendence using loops
class StudentAttendance:
    def __init__(self):
        self.attendance = {}

    def mark_attendance(self, student_name):
        self.attendance[student_name] = "Present"

    def display_attendance(self):
        print("Student Attendance:")
        for student, status in self.attendance.items():
            print(f"{student}: {status}")
            # Example usage
attendance = StudentAttendance()
while True:
    print("\n1.Mark Attendance  2.Display Attendance  3.Exit")
    choice = input("Choice: ")
    if choice == "1":
        name = input("Enter student name: ")
        attendance.mark_attendance(name)
    elif choice == "2":
        attendance.display_attendance()
    elif choice == "3":
        print("Exiting...")
        break
    else:
        print("Invalid choice. Please try again.")
```

output:



5. Use an AI tool to complete a navigation menu

prompt:

Generate a Python program using loops and conditionals
to simulate an ATM menu.

code:

```python
#Generate a Python program using loops and conditionals to simulate an ATM menu.
balance = 1000
while True:
    print("\nATM Menu:")
    print("1. Check Balance")
    print("2. Deposit Money")
    print("3. Withdraw Money")
    print("4. Exit")

    choice = input("Choose an option (1-4): ")

    if choice == "1":
        print(f"Your current balance is: ${balance}")
    elif choice == "2":
        amount = float(input("Enter amount to deposit: $"))
        if amount > 0:
            balance += amount
            print(f"${amount} deposited successfully.")
        else:
            print("Invalid amount. Please enter a positive value.")
    elif choice == "3":
        amount = float(input("Enter amount to withdraw: $"))
        if 0 < amount <= balance:
            balance -= amount
            print(f"${amount} withdrawn successfully.")
        else:
            print("Invalid amount or insufficient balance.")
    elif choice == "4":
        print("Thank you for using the ATM. Goodbye!")
        break
    else:
        print("Invalid choice. Please select a valid option.")
```

output:

```
ATM Menu:
1. Check Balance
2. Deposit Money
3. Withdraw Money
4. Exit
Choose an option (1-4): 2
Enter amount to deposit: $500
$500.0 deposited successfully.

ATM Menu:
1. Check Balance
2. Deposit Money
3. Withdraw Money
4. Exit
Choose an option (1-4): 4
Thank you for using the ATM. Goodbye!
PS C:\Users\perum\OneDrive\Desktop\New folder>
1. Check Balance
2. Deposit Money
3. Withdraw Money
4. Exit
Choose an option (1-4): 2
Enter amount to deposit: $500
$500.0 deposited successfully.

ATM Menu:
1. Check Balance
2. Deposit Money
3. Withdraw Money
4. Exit
1. Check Balance
2. Deposit Money
3. Withdraw Money
4. Exit
Choose an option (1-4): 2
Enter amount to deposit: $500
$500.0 deposited successfully.
```