Task 1:-

<untitled> *

```python
class BankAccount:
    """
    A class to represent a bank account.

    Attributes:
        account_holder (str): The name of the account holder.
        balance (float): The current balance of the account.

    Methods:
        deposit(amount): Deposits the specified amount into the account.
        withdraw(amount): Withdraws the specified amount from the account if sufficient funds exist.
        display_balance(): Displays the current account balance.
    """

    def __init__(self, account_holder, balance=0.0):
        self.account_holder = account_holder
        self.balance = balance

    def deposit(self, amount):
        if amount > 0:
            self.balance += amount
            print(f"Deposited ${amount:.2f}. New balance: ${self.balance:.2f}")
        else:
            print("Deposit amount must be positive.")

    def withdraw(self, amount):
        if amount > 0:
            if amount <= self.balance:
                self.balance -= amount
                print(f"Withdrew ${amount:.2f}. New balance: ${self.balance:.2f}")
            else:
                print("Insufficient funds.")
        else:
            print("Withdrawal amount must be positive.")

    def display_balance(self):
        print(f"Account holder: {self.account_holder}")
        print(f"Current balance: ${self.balance:.2f}")


# Sample usage
if __name__ == "__main__":
    acc = BankAccount("Alice", 100.0)
    acc.display_balance()
    acc.deposit(50)
    acc.withdraw(30)
    acc.withdraw(150)
    acc.display_balance()
```

OUTPUT:-

Shell

```
>>> %Run -c $EDITOR_CONTENT

   Account holder: Alice
   Current balance: $100.00
   Deposited $50.00. New balance: $150.00
   Withdrew $30.00. New balance: $120.00
   Insufficient funds.
   Account holder: Alice
   Current balance: $120.00

>>>
```

TASK 2:-

<untitled> * <untitled> *

```
1  # Iterate over the list and sum all even numbers
2  numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
3  even_sum = 0
4  for num in numbers:
5      if num % 2 == 0:
6          even_sum += num
7  print("Sum of even numbers:", even_sum)
```

OUTPUT:-

Shell

```
>>> %Run -c $EDITOR_CONTENT

  Sum of even numbers: 30

>>>
```

TASK 3:-

<untitled> * <untitled> * <untitled> *

```python
def age_group(age):
    """
    Returns the age group of a person based on age.
    """
    if age < 13:
        return "Child"
    elif age < 20:
        return "Teenager"
    elif age < 65:
        return "Adult"
    else:
        return "Senior"

# Sample usage
print(age_group(7))    # Output: Child
print(age_group(16))   # Output: Teenager
print(age_group(45))   # Output: Adult
print(age_group(80))   # Output: Senior
```

OUTPUT:-

Shell

```
>>> %Run -c $EDITOR_CONTENT

  Child
  Teenager
  Adult
  Senior

>>>
```

TASK 4:-

<untitled> * | <untitled> * | <untitled> * | <untitled> *

```python
# Reverse the digits of a number using a while loop

num = 1234
reversed_num = 0

while num > 0:
    digit = num % 10
    reversed_num = reversed_num * 10 + digit
    num = num // 10

print(reversed_num)
```

OUTPUT:-

Shell

```
>>> %Run -c $EDITOR_CONTENT
  4321
>>>
```

TASK 5:-

<untitled> * | <untitled> * | <untitled> * | <untitled> * | <untitled> *

```python
class Employee:
    def __init__(self, name, salary):
        self.name = name
        self.salary = salary

class Manager(Employee):
    def __init__(self, name, salary, department):
        super().__init__(name, salary)
        self.department = department

    def display_info(self):
        print(f"Name: {self.name}, Salary: {self.salary}, Dept: {self.department}")

# Example usage
mgr = Manager("John", 50000, "IT")
mgr.display_info()
# Expected Output:
# Name: John, Salary: 50000, Dept: IT
```

OUTPUT:-

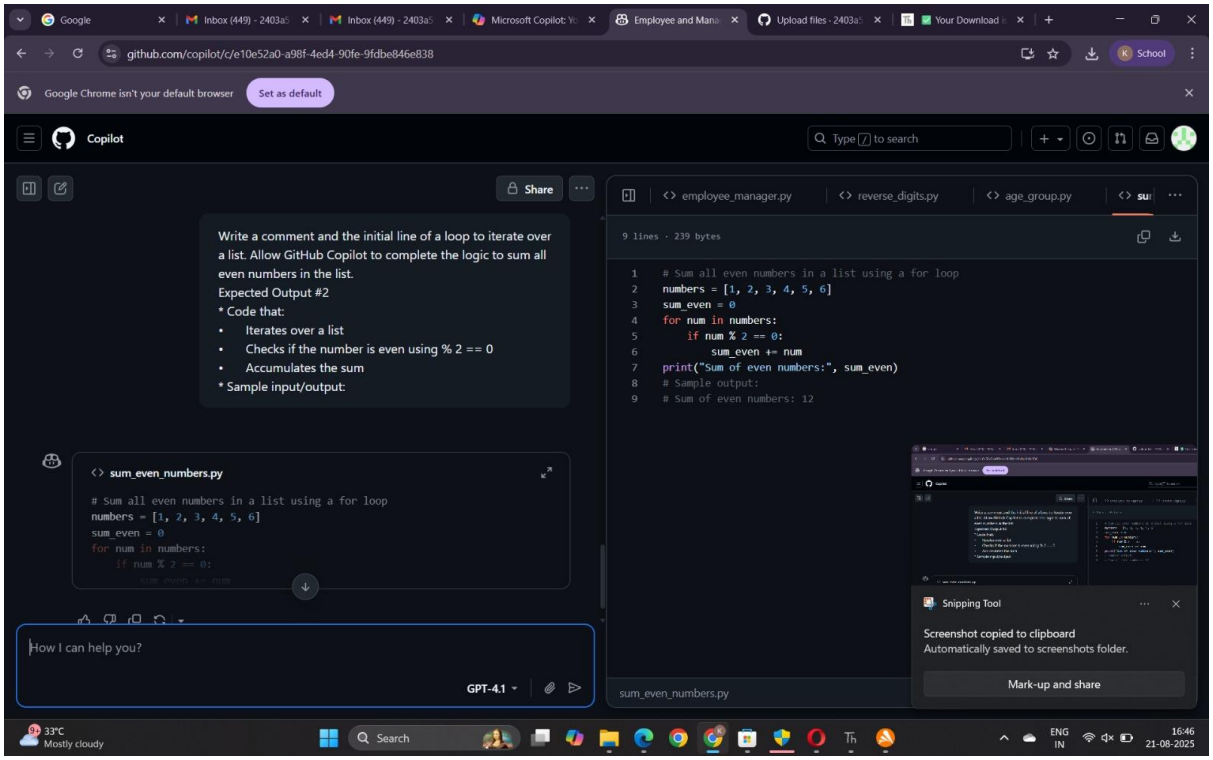
Shell

```
>>> %Run -c $EDITOR_CONTENT

  Name: John, Salary: 50000, Dept: IT

>>>
```

PROOF :-


github.com/copilot/c/e10e52a0-a98f-4ed4-90fe-9fdbe846e838
Google Chrome isn't your default browser
Set as default
Copilot
Type / to search
Share
Write a comment and the initial line of a loop to iterate over a list. Allow GitHub Copilot to complete the logic to sum all even numbers in the list.
Expected Output #2
* Code that:
• Iterates over a list
• Checks if the number is even using % 2 == 0
• Accumulates the sum
* Sample input/output:
sum_even_numbers.py
# Sum all even numbers in a list using a for loop
numbers = [1, 2, 3, 4, 5, 6]
sum_even = 0
for num in numbers:
How I can help you?
GPT-4.1
employee_manager.py
reverse_digits.py
age_group.py
9 lines · 239 bytes
# Sum all even numbers in a list using a for loop
numbers = [1, 2, 3, 4, 5, 6]
sum_even = 0
for num in numbers:
if num % 2 == 0:
sum_even += num
print("Sum of even numbers:", sum_even)
# Sample output:
# Sum of even numbers: 12
Snipping Tool
Screenshot copied to clipboard
Automatically saved to screenshots folder.
Mark-up and share
33°C
Mostly cloudy
Search
ENG
IN
16:46
21-08-2025