**AI ASSISTED CODING**

*Lab-6.4: AI-Based Code Completion – Classes, Loops, and*

*Conditionals*

**Roll No:** 2503A51L06

**Name:**D.Nagamrutha

**Batch :** 25TCAICSB19

**TASK#1:**

**Prompt:** Start a Python class named Student with attributes name, roll\_number, and marks. complete methods for displaying details and checking if marks are above average.

**Code Generated:**

A screen shot of a computer program

AI-generated content may be incorrect.

**Output:**

A screen shot of a computer

AI-generated content may be incorrect.

**Observation:**

The code defines a student class with attributes for name, roll number, and marks, along with methods to display student details and check if the marks are above a given average (default 50). It takes user input for the student’s details, creates a student object, and displays the entered information. Finally, it compares the marks with the average and prints whether the student’s marks are above average or not.

**TASK#2:**

**Prompt:** Write the first two lines of a for loop to iterate through a list of numbers. Calculate and print the square of even numbers only. Take the list from the users and if(i%2==0) only then square the number, otherwise for the odd numbers give the output as they are odd numbers**.**

**Code Generated:**

A computer screen with colorful text

AI-generated content may be incorrect.

**Output:**

A screenshot of a computer

AI-generated content may be incorrect.

**Observation:**

This code takes a list of numbers as input from the user, separated by spaces. It then checks each number: if the number is even, it calculates and prints its square, and if the number is odd, it simply prints that the number is odd. In this way, the program identifies even and odd numbers and handles them differently.

**TASK#3:**

**Prompt:** Create a class called BankAccount with attributes account\_holder and balance. Complete methods for deposit (), withdraw (), and check for insufficient balance. Take the inputs for the methods from the user.

**Code Generated:**

A computer screen shot of a program

AI-generated content may be incorrect.

**Output:**

A screenshot of a computer

AI-generated content may be incorrect.

**Observation:**

This code creates a Bank Account class that allows a user to manage their account with deposit, withdrawal, and balance checking features. It first takes the account holder’s name and initial balance as input, then creates an account. The user can deposit money, which increases the balance, and withdraw money, which decreases the balance if there are enough funds. If the withdrawal amount is more than the balance, it shows an "Insufficient balance" message.

**TASK#4:**

**Prompt**: Define a list of student dictionaries with keys name and score. Write a while loop to print the names of students who scored more than 75.

**Code Generated:**

A computer screen shot of a program

AI-generated content may be incorrect.

**Output:**

A screenshot of a computer

AI-generated content may be incorrect.**Observation:**

This code stores a list of students with their names and scores. Using a while loop, it goes through each student one by one and checks their score. If a student’s score is greater than 75, it prints the student’s name. In this way, the program displays only the students who scored above 75.

**TASK#5:**

**Prompt**: Begin writing a class Shopping Cart with an empty items list. Generate methods to add\_item, remove\_item, and use a loop to calculate the total bill using conditional discounts. And ask for the inputs from the user.

A screen shot of a computer program

AI-generated content may be incorrect.**Code Generated:**

A screenshot of a computer

AI-generated content may be incorrect.**Output:**

**Observation:**

This program defines a Shopping Cart class that lets users add items, remove items, and calculate the total bill. Each item has a name and price, and if the price is more than 100, a 10% discount is applied. The program takes user input in a loop where they can choose to add items, remove items, or finish. Once the user is done, it calculates and prints the final bill with discounts applied.