***Assignment 6.1***

Task Description #1 (Classes – Employee Management)  
• Task: Use AI to create an Employee class with attributes (name,  
id, salary) and a method to calculate yearly salary.  
• Instructions:  
o Prompt AI to generate the Employee class.  
o Analyze the generated code for correctness and structure.  
o Ask AI to add a method to give a bonus and recalculate  
salary.  
Expected Output #1:  
• A class with constructor, display\_details(), and calculate\_bonus()  
methods.

Code and Output:

A screenshot of a computer program

Description automatically generated

Observation: I observed that that the ai is not printing the output and also it just giving the def part So we to ask the AI to print the Output by taking the input in the code .

Task Description #2 (Loops – Automorphic Numbers in a Range)  
• Task: Prompt AI to generate a function that displays all  
Automorphic numbers between 1 and 1000 using a for loop.  
• Instructions:  
o Get AI-generated code to list Automorphic numbers using  
a for loop.  
o Analyze the correctness and efficiency of the generated  
logic.  
o Ask AI to regenerate using a while loop and compare both  
implementations.  
Expected Output #2:  
• Correct implementation that lists Automorphic numbers using  
both loop types, with explanation.

Prompt:generate a function that displays all Automorphic numbers between 1 and 1000 using a for loop list Automorphic numbers using a for loop.

Code and Output:

A computer screen shot of a program code

Description automatically generated

**Observation** : I Observed that the AI is not giving the Print by default we have to say AI to print an Output .

Task Description #3 (Conditional Statements – Online Shopping  
Feedback Classification)  
• Task: Ask AI to write nested if-elif-else conditions to classify  
online shopping feedback as Positive, Neutral, or Negative based  
on a numerical rating (1–5).  
• Instructions:  
o Generate initial code using nested if-elif-else.  
o Analyze correctness and readability.  
o Ask AI to rewrite using dictionary-based or match-case  
structure.

Code and Output:

**A screen shot of a computer program

Description automatically generated**

Observation: In this code we observe our prompt that if we mention to print the Output then Only it is printing the output.

Task Description #4 (Loops – Prime Numbers in a Range)  
• Task: Generate a function using AI that displays all prime  
numbers within a user-specified range (e.g., 1 to 500).  
• Instructions:  
o Get AI-generated code to list all primes using a for loop.  
o Analyze the correctness and efficiency of the prime-  
checking logic.  
o Ask AI to regenerate an optimized version (e.g., using the  
square root method).  
Expected Output #4:  
• Python program that lists all prime numbers within a given range,  
with an optimized version and explanation.

**Prompt:** Generate a Python program that lists all prime numbers in a user-specified range (e.g., 1 to 500) using a for loop, explain the prime-checking logic, then optimize the code using the square root method for efficiency, and print outputs for both versions.

***Code and Output:***

A screenshot of a computer

Description automatically generated

**Observation:** I observed that the code is giving the correct output, but we didn’t explicitly use a print statement to display the result. According to the task, the program is required to **print the** prime numbers between 1 and 500. Therefore, the code should clearly include a print function to meet the task requirements.

Task Description #5 (Classes – Library System)  
• Task: Use AI to build a Library class with methods to  
add\_book(), issue\_book(), and display\_books().  
• Instructions:  
o Generate Library class code using AI.  
o Analyze if methods handle edge cases (e.g., issuing  
unavailable books).  
o Ask AI to add comments and documentation.  
Expected Output #5:  
• Library class with all methods, inline comments, and explanation.

Prompt:

Code and Output:

A screenshot of a computer program

Description automatically generated

A screenshot of a computer program

Description automatically generated

Observation: In this code, we have included a statement to print the output, so it correctly displays the result.