ASSIGNMENT-6.1

N.Sai Teja

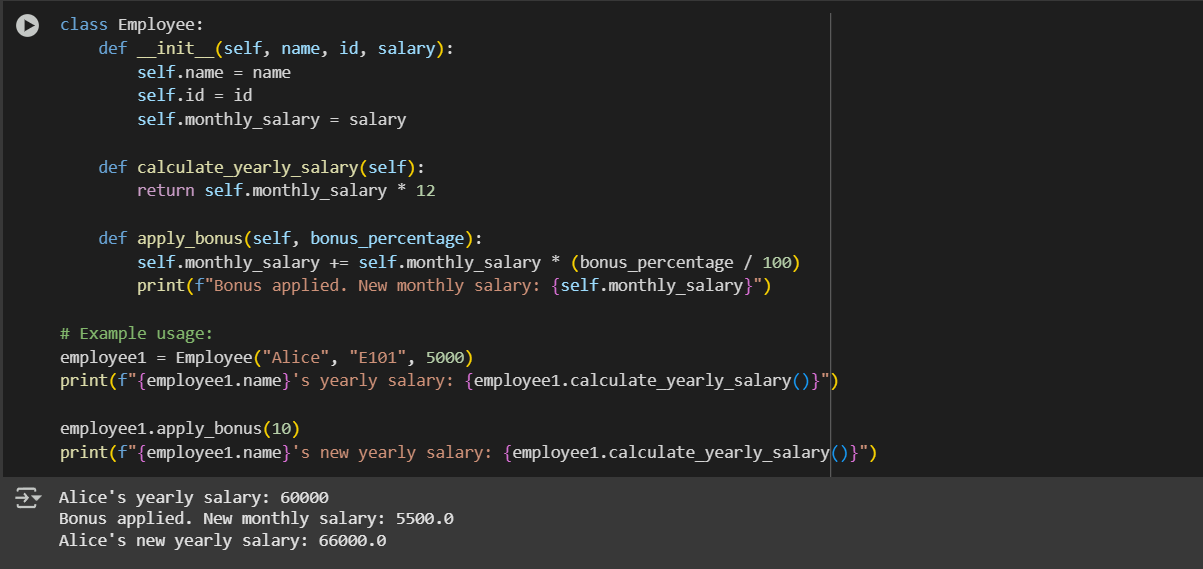
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Task Description #1 (Classes – Employee Management)

* Task: Use AI to create an Employee class with attributes (name, id, salary) and a method to calculate yearly salary.
* Instructions:
  + Prompt AI to generate the Employee class.
  + Analyze the generated code for correctness and structure.
  + 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.

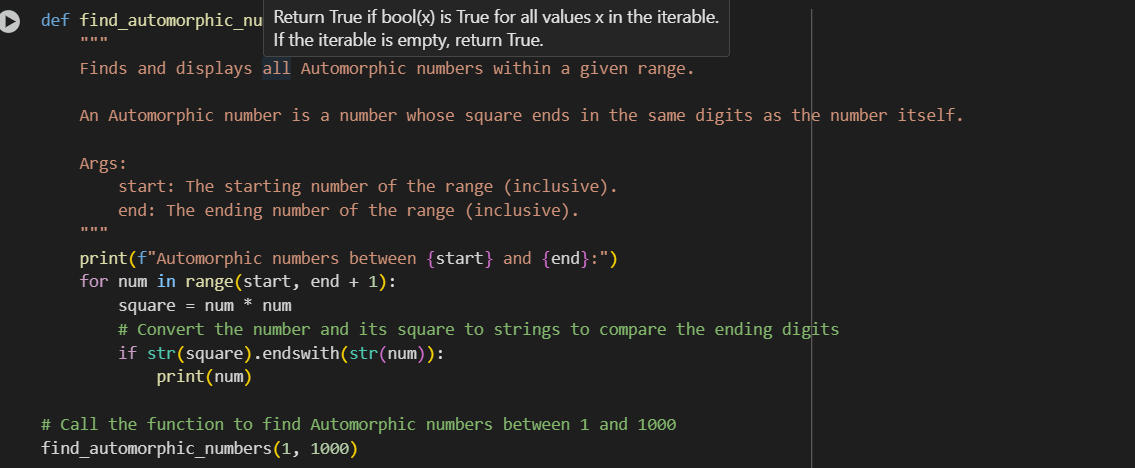


Task Description #2 (Loops – Automorphic Numbers in a Range)

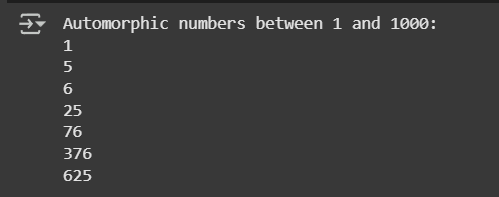
* Task: Prompt AI to generate a function that displays all Automorphic numbers between 1 and 1000 using a for loop.
* Instructions:
  + Get AI-generated code to list Automorphic numbers using a for loop.
  + Analyze the correctness and efficiency of the generated logic.
  + Ask AI to regenerate using a while loop and compare both implementations.

Expected Output #2:

* Correct implementation that lists Automorphic numbers using both loop types, with explanation.



Output:

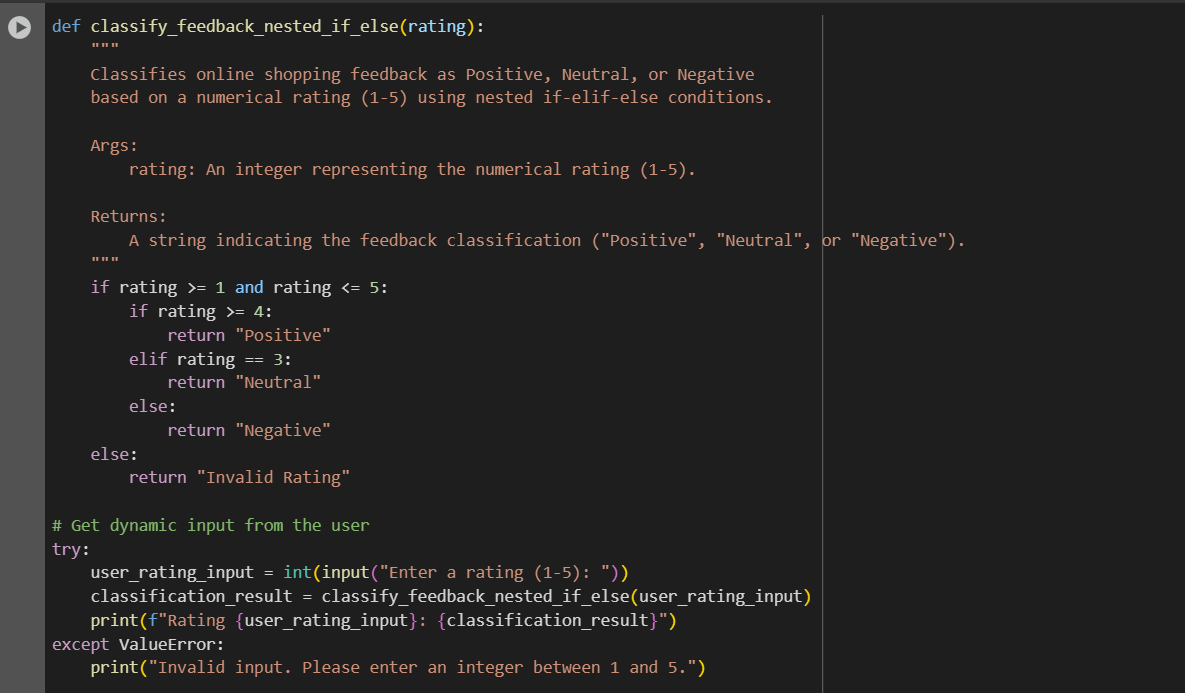


Task Description #3 (Conditional Statements – Online Shopping Feedback Classification)

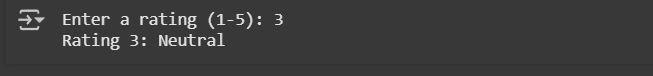
* Task: Ask AI to write nested if-elif-else conditions to classify online shopping feedback as Positive, Neutral, or Negative based on a numerical rating (1–5).
* Instructions:
  + Generate initial code using nested if-elif-else.
  + Analyze correctness and readability.
  + Ask AI to rewrite using dictionary-based or match-case structure.

Expected Output #3:

* Feedback classification function with explanation and an alternative approach.



Output:

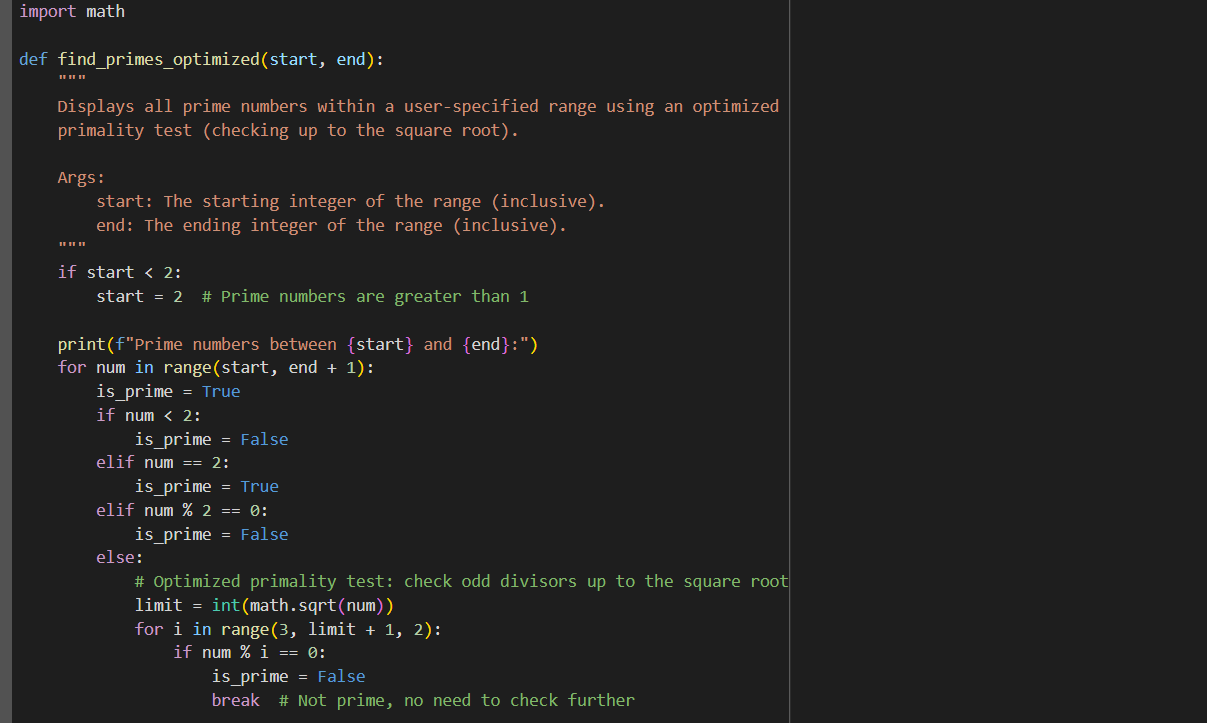


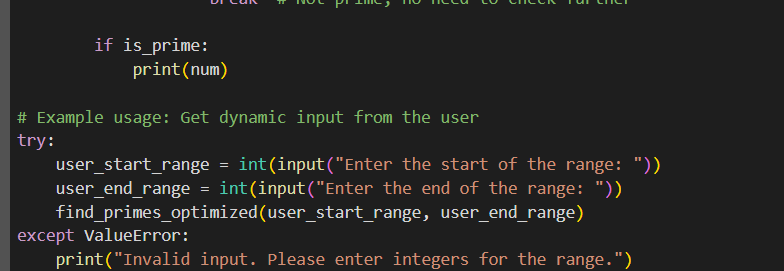
Task Description #4 (Loops – Prime Numbers in a Range)

* Task: Generate a function using AI that displays all prime numbers within a user-specified range (e.g., 1 to 500).
* Instructions:
  + Get AI-generated code to list all primes using a for loop.
  + Analyze the correctness and efficiency of the prime-checking logic.
  + Ask AI to regenerate an optimized version (e.g., using the square root method).

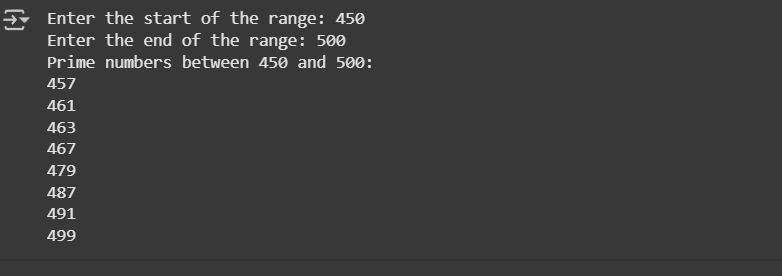
Expected Output #4:

* Python program that lists all prime numbers within a given range, with an optimized version and explanation.





Output:



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:
  + Generate Library class code using AI.
  + Analyze if methods handle edge cases (e.g., issuing unavailable books).
  + Ask AI to add comments and documentation.

Expected Output #5:

* Library class with all methods, inline comments, and explanation.

