AI Assisted Coding

## ASSIGNMENT-9.3

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**Task-1**

Basic Docstring Generation

• Write python function to return sum of even and odd numbers in the given list

• Incorporate manual docstring in code with Google Style.

• Use an AI-assisted tool (e.g., Copilot, Cursor AI) to generate a docstring describing the function.

• Compare the AI-generated docstring with your manually written one

**Prompt:**

Generate a Google-style docstring for the following Python function that calculates and returns the sum of even and odd numbers in a given list. The docstring should include a short description, parameters with type hints, and return values with type hints. Do not include input-output examples.

**Code:**

A computer screen with text and numbers

AI-generated content may be incorrect.

**AI Generated Docstring:**

A screenshot of a computer program

AI-generated content may be incorrect.

A black screen with green dots

AI-generated content may be incorrect.

**Output:**

A screenshot of a computer

AI-generated content may be incorrect.

**Comparision:**

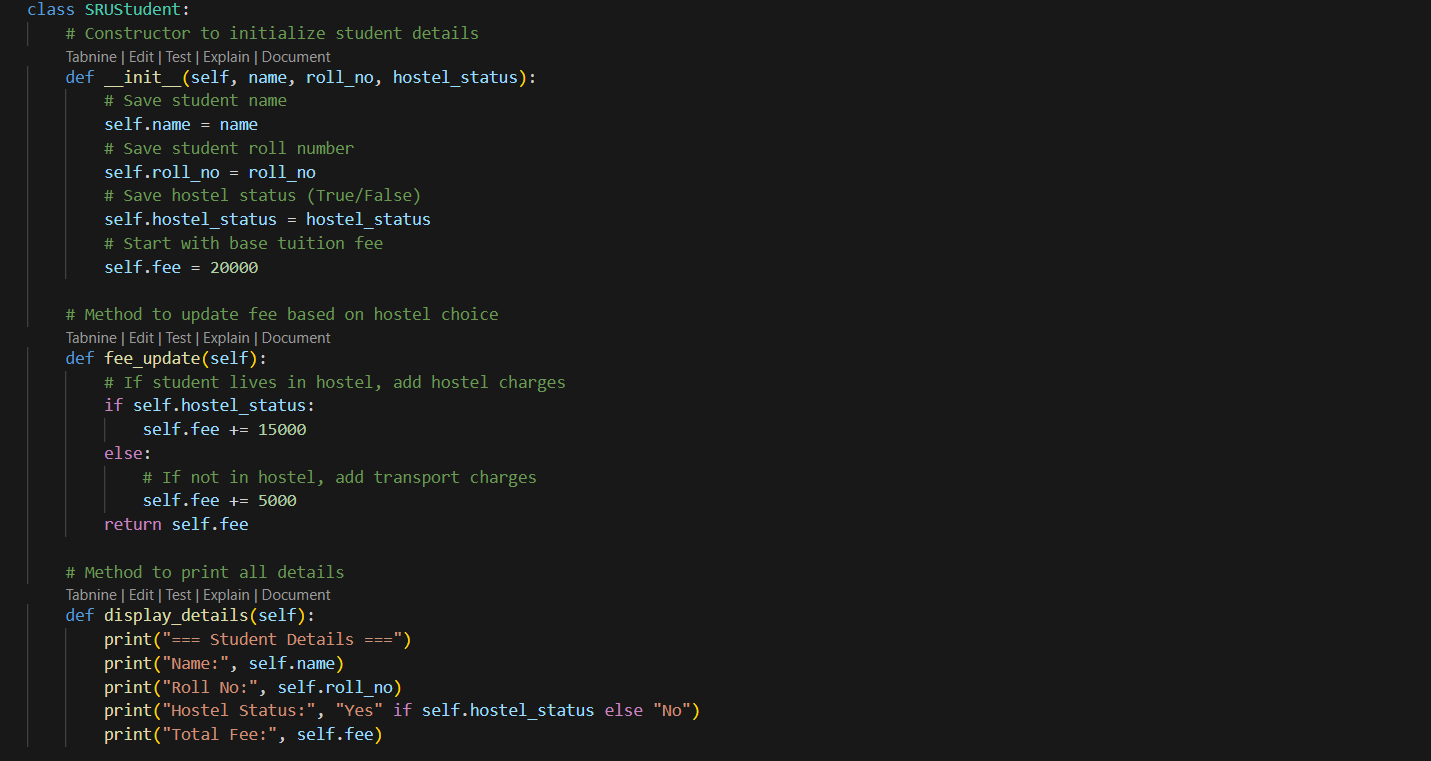
* **Manual Docstring (Google Style)**
  + More structured.
  + Includes **type hints** (list[int], tuple[int, int]).
  + Provides an **Example** for clarity.
* **AI-Generated Docstring**
  + Simpler, less detailed.
  + Doesn’t specify **types precisely** (just says list and tuple).
  + Lacks example usage.

**Conclusion:** The manual version is more professional and precise, while the AI one is shorter and easier to write but misses some details

**Task-2**

Write python program for sru\_student class with attributes like name, roll no.,  
hostel\_status and fee\_update method and display\_details method.  
• Write comments manually for each line/code block  
• Ask an AI tool to add inline comments explaining each line/step.  
• Compare the AI-generated comments with your manually written one.

**Manual Comments code:**



**Output:**

A black rectangle with white text

AI-generated content may be incorrect.

**Prompt:**

Add inline comments to this Python class SRUStudent which has attributes like name, roll no., hostel\_status, and methods fee\_update and display\_details. The comments should explain each line or step in simple terms

**Code:**

A black screen with colorful text

AI-generated content may be incorrect.

**Output:**

A black rectangular object with white text

AI-generated content may be incorrect.

**Task-3**

Write a Python script with 3–4 functions (e.g., calculator: add, subtract, multiply,  
divide).  
• Incorporate manual docstring in code with NumPy Style  
• Use AI assistance to generate a module-level docstring + individual function  
docstrings.  
• Compare the AI-generated docstring with your manually written one.

**Prompt:**

Write a module-level and function-level docstring in NumPy style for a Python calculator with functions add, subtract, multiply, and divide. Include parameter types, return types, and error handling.

**Code:**

A screen shot of a computer

AI-generated content may be incorrect.

A black screen with white text

AI-generated content may be incorrect.A black screen with text

AI-generated content may be incorrect.

A computer screen shot of a black screen

AI-generated content may be incorrect.

**Output:**

A screenshot of a computer

AI-generated content may be incorrect.

A black screen with white lines

AI-generated content may be incorrect.

A computer screen shot of a computer

AI-generated content may be incorrect.