AI ASSISTED CODING

ASSIGNMENT-10.1

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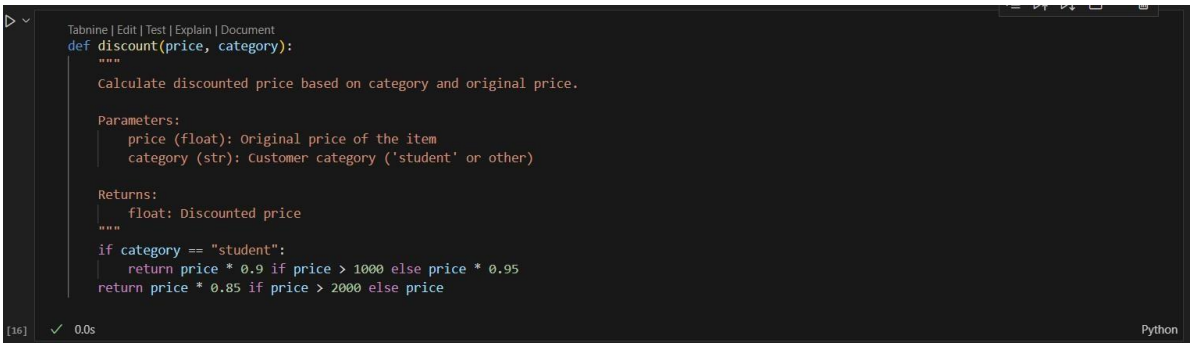
TASK 1

GIVEN CODE-

PROMPT-

Fortheabovecodesimplifyand refactor forreadability.

AI GENERATED CODE-



TASK 2

GIVEN CODE-

PROMPT-

Refactorand optimize theabovecode.

AI GENERATED CODE-

TASK 3

GIVEN CODE-

PROMPT-

For the above code improve Naming conventions, Encapsulation, Readability C maintainability.

```
class Employee:
    """
    Represents an employee with name and salary.

    Attributes:
        name (str
```

TASK 4

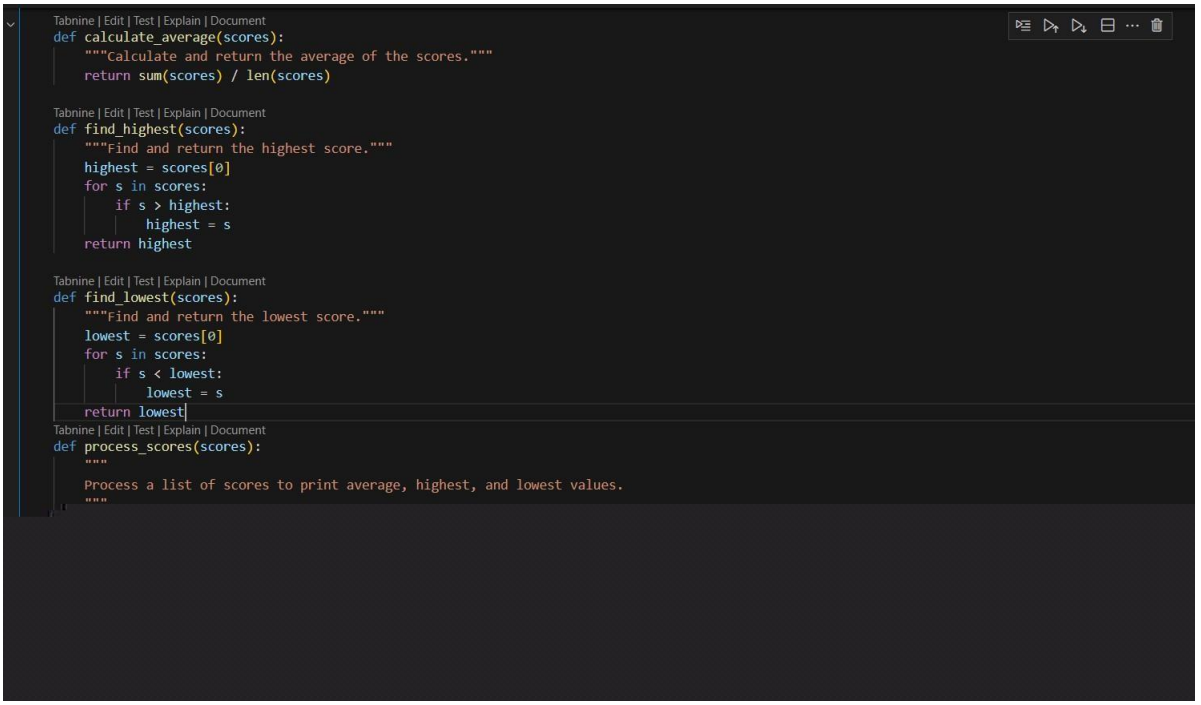
GIVEN CODE-

```
Tabnine | Edit | Test | Explain | Document
def process_scores(scores):
    total = 0
    for s in scores:
        total += s
    avg = total / len(scores)

    highest = scores[0]
    for s in scores:
        if s > highest:
            highest = s

    lowest = scores[0]
    for s in scores:
        if s < lowest:
            lowest = s

    print("Average:", avg)
    print("Highest:", highest)
    print("Lowest:", lowest)
```

PROMPT-

Break the code into smaller helper functions.

AI GENERATED CODE-



```
Tabnine | Edit | Test | Explain | Document
def calculate_average(scores):
    """Calculate and return the average of the scores."""
    return sum(scores) / len(scores)

Tabnine | Edit | Test | Explain | Document
def find_highest(scores):
    """Find and return the highest score."""
    highest = scores[0]
    for s in scores:
        if s > highest:
            highest = s
    return highest

Tabnine | Edit | Test | Explain | Document
def find_lowest(scores):
    """Find and return the lowest score."""
    lowest = scores[0]
    for s in scores:
        if s < lowest:
            lowest = s
    return lowest
Tabnine | Edit | Test | Explain | Document
def process_scores(scores):
    """
    Process a list of scores to print average, highest, and lowest values.
    """
```

OUTPUT-

TASK 5

GIVEN CODE-

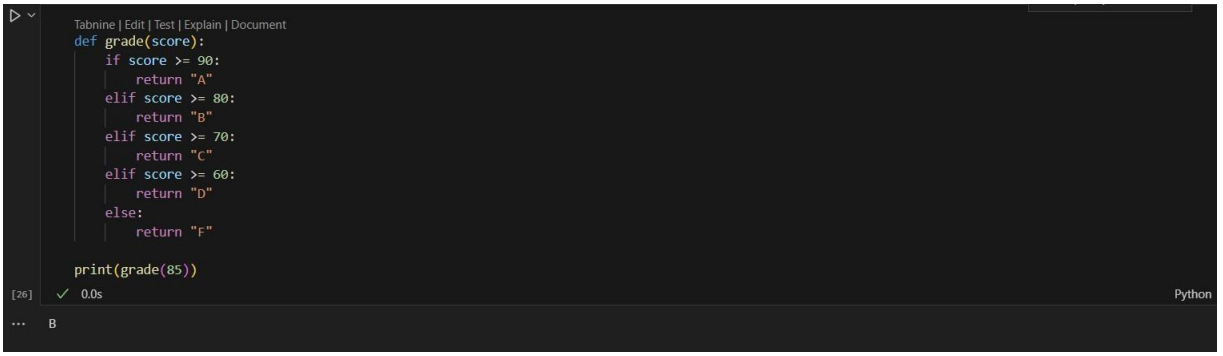
PROMPT-

Fortheabovecodeimprove errorhandling, naming, and readability.

AI GENERATED CODE-

TASK 6

GIVEN CODE-



PROMPT-

Simplifyoverly complexlogic.

AI GENERATED CODE-

```
Tabnine | Edit | Test | Explain | Document
def grade(score):
    """
    Return the letter grade for a given numeric score.
    """
    grade_map = [(90, "A"), (80, "B"), (70, "C"), (60, "D")]

    for threshold, letter in grade_map:
        if score >= threshold:
            return letter
    return "F"

# Example usage
print(grade(85))  # Output: B
print(grade(72))  # Output: C
print(grade(58))  # Output: F
```

[27] ✓ 0.0s Python

```
B
C
F
```