School of Computer Science and AI, SR University

AI Assisted Problem Solving Using Python

AcademicYear:2025-2026

Assignment Type: Lab
Assig_No. 1

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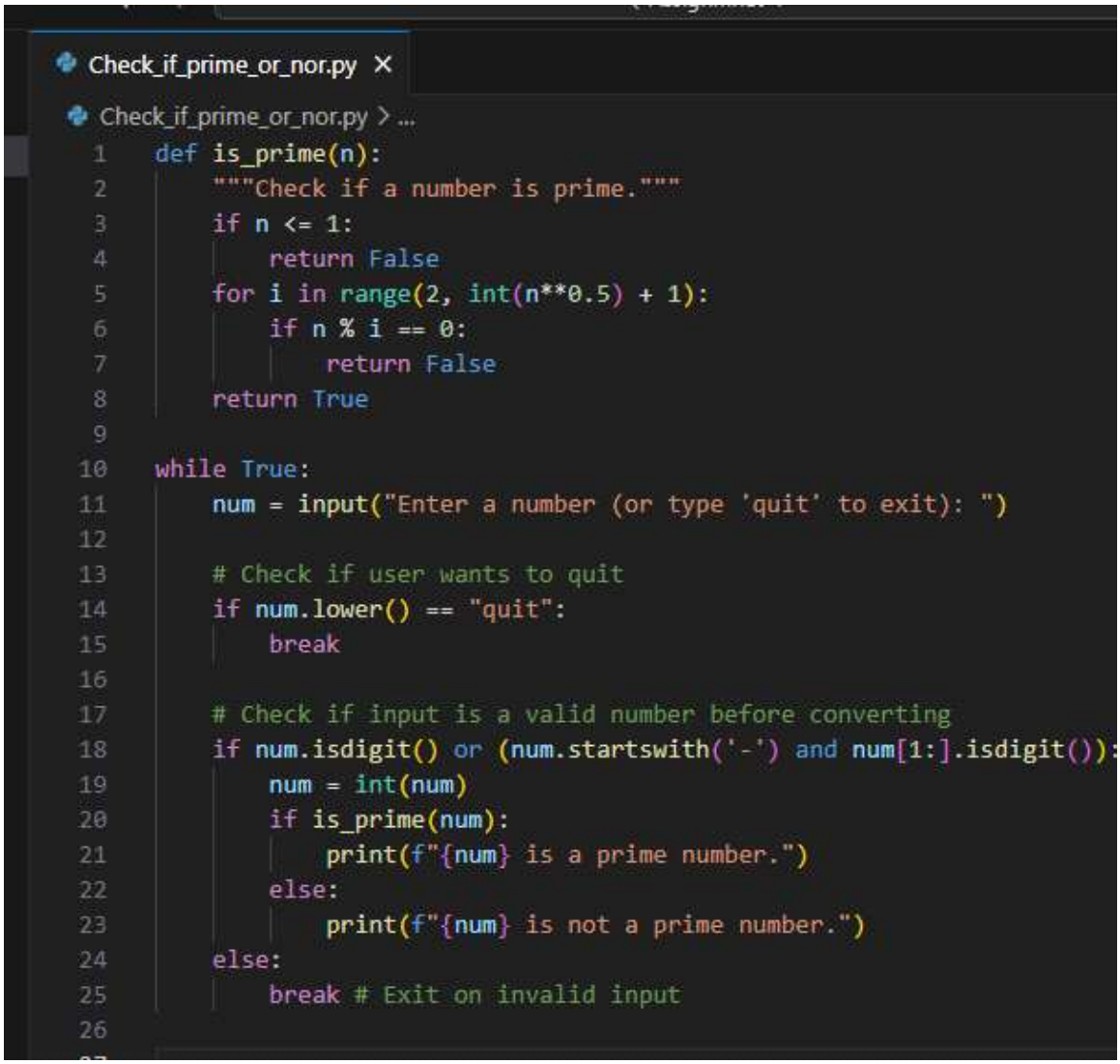
Q 2: Use Copilot to generate a is_prime() Python function.

Code:

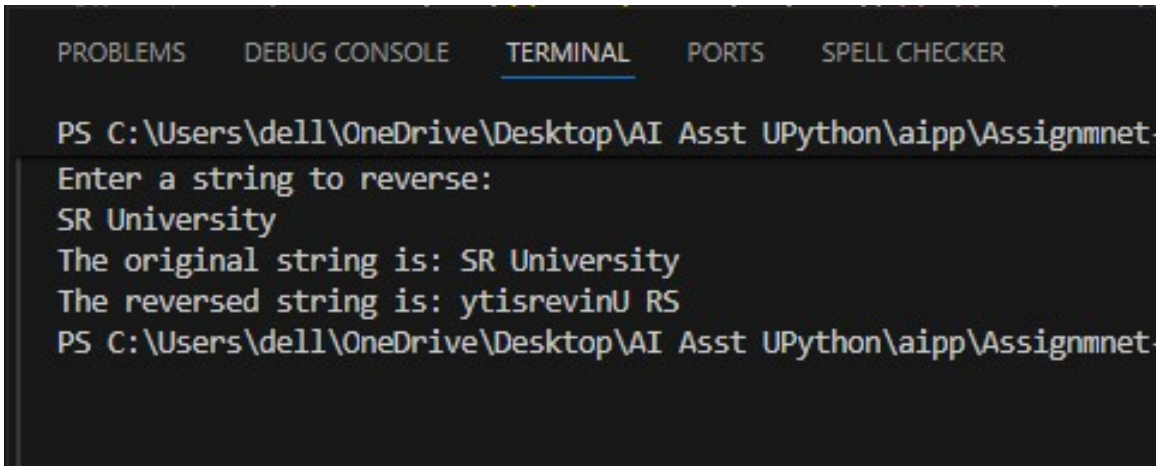
Output screenshot:
Function to check primality with correct logic.

Q 3: Write a comment like # Function to reverse a string and use Copilot to generate the function.

Code:

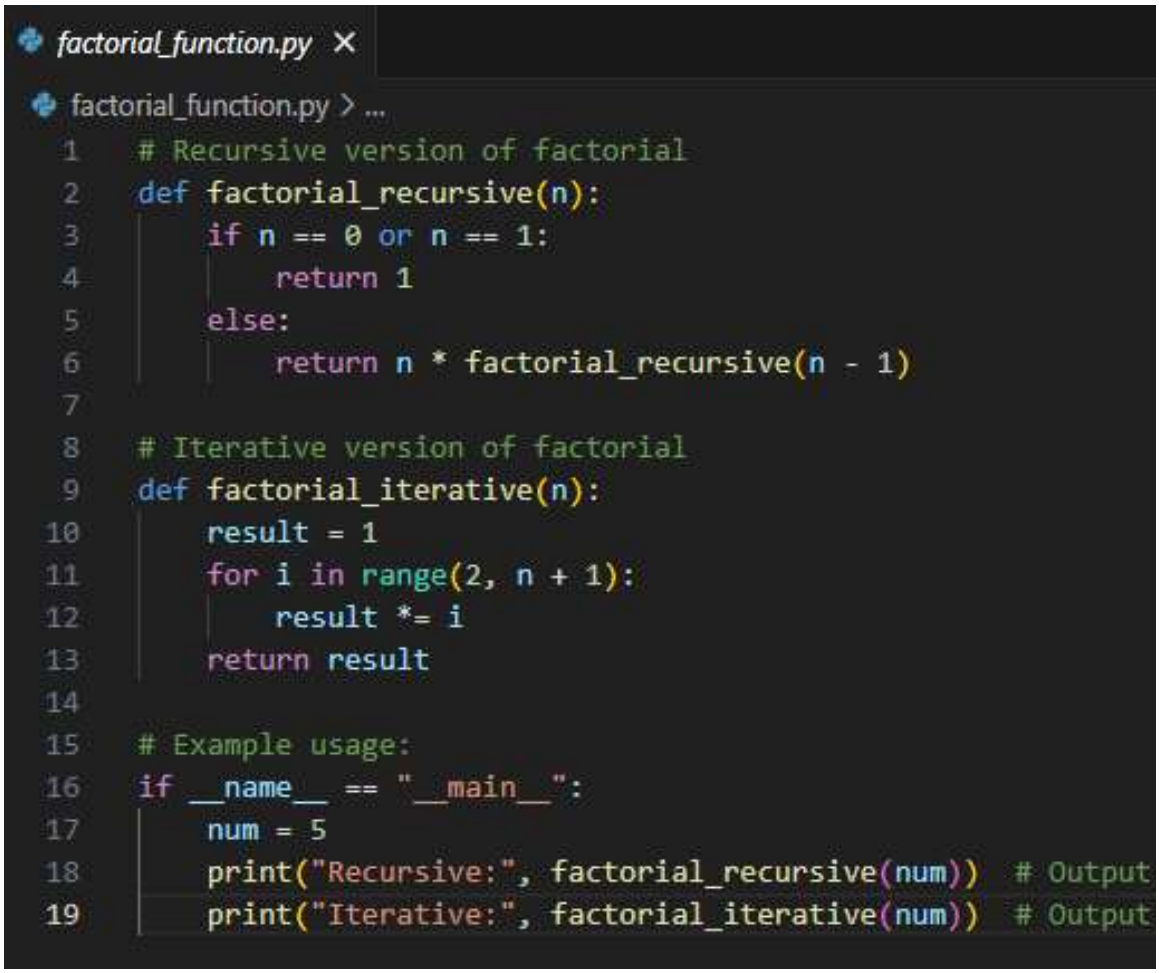


Output: Auto-completed reverse function



Q4: Generate both recursive and iterative versions of a factorial function using comments..

Code:



Output: Two working factorial implementations

Q 5: Use Copilot to find the largest number in a list. Assess code quality and efficiency
Code:

largest_number.py

```python
def find_largest_number(numbers):
    """
    Returns the largest number in a list.
    Args:
        numbers (list): List of numeric values.
    Returns:
        The largest number in the list, or None if the list is empty.
    """
    if not numbers:
        return None
    return max(numbers)

# Example usage:
if __name__ == "__main__":
    sample_list = [3, 5, 2, 8, 1]
    largest = find_largest_number(sample_list)
    print(f"The largest number in {sample_list} is {largest}")
# Review:
# - Uses Python's built-in max() function, which is efficient (O(n) time)
# - Handles empty lists gracefully by returning None.
# - Code is concise, readable, and leverages standard library features.
# - For very large lists, this is as efficient as possible in Python.
```

Output: A valid function with your review

```
PS C:\Users\dell\OneDrive\Desktop\AI Asst UPython\aipp\Assignmnet-1> pythor
The largest number in [3, 5, 2, 8, 1] is 8
PS C:\Users\dell\OneDrive\Desktop\AI Asst UPython\aipp\Assignmnet-1>
```