**SR UNIVERSITY**

**AI ASSISTED CODING LAB**

**ASSIGNMENT 8**

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**AssignmentNumber:8.2**

**TASK 1:**

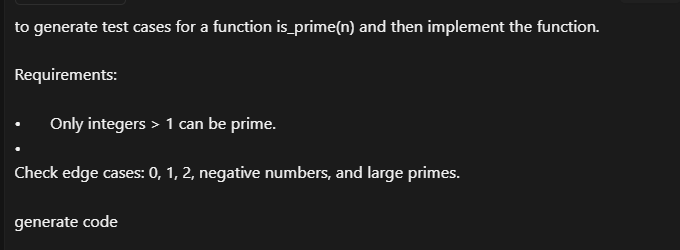
**DESCRIPTION:**

Use AI to generate test cases for a function is\_prime(n) and then implement the function.

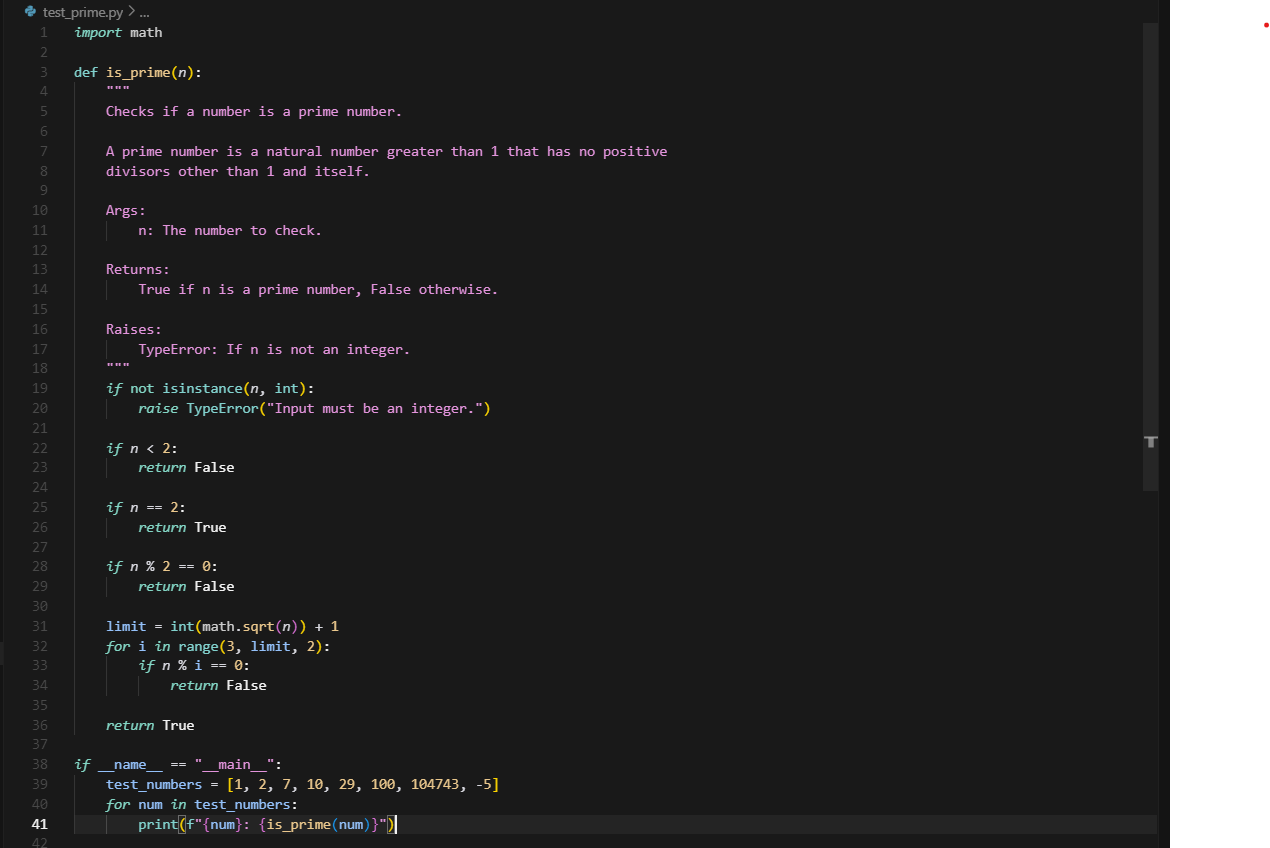
**Requirements:**

* Only integers > 1 can be prime.
* Check edge cases: 0, 1, 2, negative numbers, and large primes.

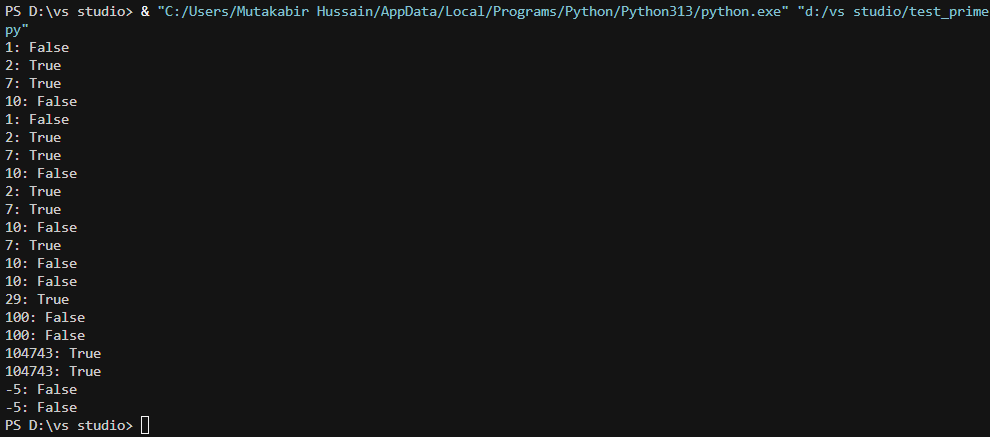
**PROMPT:**



**CODE GENERATED:**



**OUTPUT:**



OBSERVATION:

The output displays the results of a Python script which was given by ai in the visual studio

**TASK 2**

**Task Description#2 (Loops)**

* Ask AI to generate test cases for celsius\_to\_fahrenheit(c) and fahrenheit\_to\_celsius(f)

**Requirements**

* Validate known pairs: 0°C = 32°F, 100°C = 212°F.
* Include decimals and invalid inputs like strings or None

**Prompt:**

A screenshot of a chat

AI-generated content may be incorrect.

**Code:** A screenshot of a computer program

AI-generated content may be incorrect.

**Output:** A computer screen with blue text

AI-generated content may be incorrect.

**Observation:**

I observed that the final output matched the expected result dual conversion functions with complete tests and safe type handling.

**TASK 3**

**Task Description#3**

Use AI to write test cases for a function count\_words(text) that returns the number of words in a sentence.

**Requirement**

Handle normal text, multiple spaces, punctuation, and empty strings.

**Expected Output#3**

Accurate word count with robust test case validation.

**Prompt:**

**A screenshot of a computer program

AI-generated content may be incorrect.**

**Code:** **A screenshot of a computer program

AI-generated content may be incorrect.**

**Output:** **A screen shot of a computer

AI-generated content may be incorrect.**

**Observation:**

Handles normal text → "Hello world" → 2

Handles multiple spaces → "Hello world" → 2

Handles punctuation → "Hello, world!" → 2 (punctuation counted as part of word, still 2 words)

Handles empty string → "" → 0

**TASK 4**

**Task Description#4**

* Generate test cases for a BankAccount class with:

**Methods:**

deposit(amount)

withdraw(amount)

check\_balance()

**Requirements:**

* Negative deposits/withdrawals should raise an error.
* Cannot withdraw more than balance.

**Expected Output#4**

* AI-generated test suite with a robust class that handles all test cases.

**Prompt:**

**A black and white screen with white text

AI-generated content may be incorrect.**

**Code:** **A screenshot of a computer program

AI-generated content may be incorrect.**

**Output:** **A computer screen with blue text

AI-generated content may be incorrect.**

**Observation:**

AI has generated all test cases and have executed all of them with methods

deposit(amount)

withdraw(amount)

check\_balance()

**TASK 5**

**Task Description#5**

Generate test cases for is\_number\_palindrome(num), which checks if an integer reads the same backward.

**Examples:**

121 → True

123 → False

0, negative numbers → handled gracefully

**Expected Output#5**

* Number-based palindrome checker function validated against test cases.

Prompt:

A black screen with white text

AI-generated content may be incorrect.

Code: A screen shot of a computer program

AI-generated content may be incorrect. A screen shot of a computer code

AI-generated content may be incorrect.

Output: A computer screen shot of a computer code

AI-generated content may be incorrect.

Observation:

When running the tests, all cases passed successfully