# AI Assisted Coding – Assignment 2.3

Course Code - 24CS002PC215

Course Title - AI Assisted Coding

Year / Sem - II / I (2 – 1)

Regulation - R24

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# Task – 1 :

# Screenshot 1 :

A white background with black text

AI-generated content may be incorrect.

# Screenshot 2 :

A black screen with colorful text

AI-generated content may be incorrect.

# Screenshot 3 :

A screenshot of a computer program

AI-generated content may be incorrect.

# Screenshot 4:

A screenshot of a computer

AI-generated content may be incorrect.

# Task - 2 :

# Screenshot 1 :

A close up of words

AI-generated content may be incorrect.

# Screenshot 2 :

A screenshot of a computer

AI-generated content may be incorrect.

# Screenshot 3:

A computer screen shot of a computer screen

AI-generated content may be incorrect.

**Task #2: Compare Gemini and Copilot outputs for a palindrome check function**

**Side-by-Side Comparison**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  | | --- | --- | --- | | Aspect | Gemini Output (Google Colab) | Copilot Output (VS Code) | | Function Definition | def is\_palindrome(s): | def is\_palindrome(s: str) -> bool: | | Docstring | Explains arguments and return values clearly | Provides a concise explanation, includes type hints | | Cleaning Input | Uses list comprehension: ''.join(char for char in s if char.isalnum()).lower() | Uses generator expression with lowercase inside: ''.join(c.lower() for c in s if c.isalnum()) | | Case Handling | Applies .lower() after joining the characters | Applies .lower() while iterating over characters | | Output Check | return cleaned\_s == cleaned\_s[::-1] | return cleaned == cleaned[::-1] | | Example Usage | Provides test cases ("Racecar", "hello", "A man, a plan, a canal: Panama") | No built-in test cases provided in output | | Environment | Generated in **Google Colab with Gemini** | Generated in **VS Code with GitHub Copilot** | |

**Observations**

1. **Both Gemini and Copilot generated logically correct palindrome functions.**
2. **Gemini’s output** included more detailed docstrings and example test cases, making it beginner-friendly.
3. **Copilot’s output** was more concise, using type hints (str -> bool) for better readability in professional/typed Python code.
4. Input cleaning was slightly different:
   * Gemini → lowercase applied after joining.
   * Copilot → lowercase applied during character iteration.  
     Both methods achieve the same result.
5. For quick learning and explanation, **Gemini’s version** is more descriptive.  
   For production-ready code with type safety, **Copilot’s version** is preferable.

# Task – 3 :

# Screenshot 1 :

A white background with black text

AI-generated content may be incorrect.

# Screenshot 2:

A screenshot of a computer

AI-generated content may be incorrect.

# Screenshot 3 ;

A screenshot of a computer program

AI-generated content may be incorrect.

# Screenshot 4 ( Full Window ):

A screenshot of a computer

AI-generated content may be incorrect.

# Screenshot 5 ( Full Window ):

A screenshot of a computer

AI-generated content may be incorrect.

# Task – 4 :

# Screenshot 1 :

A close up of text

AI-generated content may be incorrect.

# Screenshot 2 :

A screenshot of a computer

AI-generated content may be incorrect.

# Screenshot 3 :

A screenshot of a computer

AI-generated content may be incorrect.

# Task – 5 :

# Screenshot 1 :

A white background with black text

AI-generated content may be incorrect.

# Screenshot 2 :

A screenshot of a computer

AI-generated content may be incorrect.