**PART 3: On AI Agent Integration**

For the third part of the assignment, I used Microsoft Copilot to assist with three main tasks: refining my step 4 pseudocode, generating alternative solution and guidelines for real world implementation.

1. "I have my pseudocode for an automated pet feeder based on the requirements from the pdf. Can you suggest any improvements or identify any issues?"

Response:

The AI suggested adding a flexible time check (IsTimeClose()), loop through scheduled feeding times and including fault management for motor jams and battery checks.

These suggestions made my Step 4 code more reliable, modular and realistic for physical implementation.

1. "Can you help me any best alternative method or any ways to improve my flowchart and algorithm?"

Response:

The AI suggested using a sensor-triggered feeding system with an attempt recovery method, pet attention check before feeding, defined fail causes and only alerts after repeated failures.

This made the feeder smarter and less wasteful by updating its logic to be able to detect pets, retry before alert and detailed record of log.

1. "How can I implement this system using actual hardware like Arduino, Raspberry Pi.

Response:

AI suggested using affordable parts Arduino Uno, load cells, ultrasonic sensor, servo with integration logic.

This provide me with the list of hardware that can be used and a prototype clear plan.

Overall, the AI provided me with more refined and detailed ways on how I can make my system more reliable and effective. It helped me understand the things I can improve in my system and ways to implement this system effectively.