**PART 3: AI Agent Integration (Microsoft Copilot)**

**Prompts I gave Copilot**

First, I shared my Step 4 pseudo-code for the automated pet feeder: Translate my pseudo-code to look shorter and more elegant. Later on, I also asked it to shorten the code even more.

Copilot’s Response:

Init:

schedule = [08:00, 12:00, 16:00, 20:00]

portion = 150g

threshold = 20%

wait = 10 min

fed\_today = map<time,bool>

Loop every minute:

(storage, bowl\_before, now) = ReadSensors()

IF now in schedule AND not fed\_today[now]:

IF storage < threshold:

alert("Low food")

ELSE:

activate\_servo(portion)

fed\_today[now] = true

wait(wait)

bowl\_after = read\_bowl()

IF bowl\_after < bowl\_before:

log("Food eaten")

ELSE:

alert("Uneaten food")

IF manual\_button\_pressed:

activate\_servo(portion)

UpdateDisplay(storage, next\_time)

IF is\_midnight(now):

reset(fed\_today)

Copilot simplified my code, changed the names to simpler ones, and reduced the level of detail. So it shortened to result in something like: It also gave me a manageable loop and added even a manual feed button I failed to add.

**How it Helped:**

This allowed me to slim down Step 4 and make it a little more human-readable. It also improved my design thinking to have the addition of a manual button.

**Limitations:**

It did lack a few important details or generalized the logic far too much when Copilot generated code, so I needed to check and keep whatever was required.