**Step 4: Implement the Solution (Word Coding)**

BEGIN

SET dry\_schedule = ["08:00", "12:00"]

SET wet\_schedule = ["18:00"]

SET dry\_amount = 100 grams

SET wet\_amount = 150 grams

SET uneaten\_threshold = 2 hours

CALIBRATE weight\_sensor

INITIALIZE button

START RTC

SET last\_feed\_time = null

SET last\_weight = read\_weight()

WHILE system is running

# Check if it’s time to feed or button is pressed

SET current\_time = read\_RTC()

SET button\_status = read\_button()

SET is\_feed\_time = (current\_time in dry\_schedule OR current\_time in wet\_schedule)

IF is\_feed\_time OR button\_status = True THEN

# Give the right type of food

IF current\_time in dry\_schedule THEN

SET food\_type = "Dry"

SET amount = dry\_amount

GIVE dry\_food

ELSE IF current\_time in wet\_schedule THEN

SET food\_type = "Wet"

SET amount = wet\_amount

GIVE wet\_food

ELSE

SET food\_type = "Dry (Manual)"

SET amount = dry\_amount

GIVE dry\_food

ENDIF

# Check if food came out

IF servo\_status = Failed THEN

TURN\_ON buzzer\_led

SET log\_entry = "[current\_time]: Food didn't come out"

ELSE

SET log\_entry = "[current\_time]: Gave [food\_type], [amount]g"

SET last\_feed\_time = current\_time

ENDIF

SAVE log\_entry

ENDIF

# Check if food is eaten

SET bowl\_weight = read\_weight()

IF bowl\_weight > 0 THEN

IF last\_feed\_time is not null AND last\_feed\_time + uneaten\_threshold < current\_time AND bowl\_weight > 10 grams THEN

TURN\_ON buzzer\_led

SET log\_entry = "[current\_time]: Food not eaten"

ELSE

SET log\_entry = "[current\_time]: Weight = [bowl\_weight]g"

ENDIF

SAVE log\_entry

SET last\_weight = bowl\_weight

ELSE

SET log\_entry = "[current\_time]: Bad Weight"

SAVE log\_entry

ENDIF

WAIT 30 seconds

ENDWHILE

END