**Step 5: Test and Refine the Solution**

Test scenarios:

* Scenario 1: Pet eats as expected
  + Inputs:
    - CurrentTime is 08:00
    - FoodLevel is not Low
    - PreDispenseBowlWeight is 0g
  + Process:
    - System dispenses 100g of FoodPortion
    - After 10 minutes, FinalBowlWeight is less than 100g
  + Outputs:
    - No alerts sent
    - Pets are fed normally
    - Process completed
* Scenario 2: Pet does not eat
  + Inputs:
    - CurrentTime is 08:00
    - FoodLevel is not Low
    - PreDispenseBowlWeight is 0g
  + Process:
    - System dispenses 100g of FoodPortion
    - After 10 minutes, FinalBowlWeight is still 100g
  + Outputs:
    - Alert3 sent out
    - Pet did not eat the food
    - Process completed with Alert3 sent out
* Scenario 3: Food bin is empty
  + Inputs:
    - CurrentTime is 08:00
    - FoodLevel is Low
  + Process:
    - System check with sensor before dispensing food
  + Outputs:
    - Alert2 sent out
    - Food did not dispense
    - Process did not complete with Alert2 sent out

**Suggest improvements:**

* **Food consumption tracking log:** To track pet’s eating amount and habit to monitor their health condition.
* **Food portion adjustment:** To change portion bigger/smaller depends on pet’s need, age, food type.
* **Tolerance margin for weighing:** To avoid Alert2 being sent out by food spilling out or pet eating right after food was dispensed from the container.