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

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| **Test Case ID** | **Input Conditions** | **Expected Output** | **Pass Criteria** |
| TC01 | System ON, Time = 08:00, Food Level = True | Food dispensed, Pet fed | Bowl weight increases |
| TC02 | System OFF | No action taken | System waits until ON |
| TC03 | Time ≠ Feeding Time | No action taken | System waits until feeding time |
| TC04 | Food Level = False | Alert: "No food available" | Alert sent, no food dispensed |
| TC05 | Bowl weight unchanged after 10 min | Alert: "Food not eaten" | Alert sent |