Automated Pet Feeder System

Step 4: Implement the Solution (Word Coding)

- **Start**
    - Initialize system variables: currentTime, servoPosition, bowlWeight
    - Initialize feeding schedule: feedingTimes, portionSize
    - Initialize feedingLog
- **Check Current Time**
    - Compare currentTime with feedingTimes
    - Decision:
        - If currentTime matches a feeding time → go to Dispense Food
        - Else → Wait (loop back to Check Current Time)
- **Dispense Food**
    - Rotate servo to "dispense" position
    - Record previousWeight of bowl
    - Wait a few seconds for food to
- **Reset Servo and End**

Step 5: Test and Refine the Solution (Debug and Verify)

Test Scenario:

1. **Pet Eats as Expected:** Food dispensed on schedule, bowl weight increases, feeding logged.
2. **Pet Does Not Eat:** Bowl weight unchanged after 10 mins, alert triggered.
3. **Food Bin Empty:** Servo does not dispense, empty-bin alert sent.
4. **Compare with Expectations:** All scheduled feedings, logs, and alerts match expected outcomes.
5. **Refinements:** Add notifications, error handling, and adjustable feeding schedules.