Step 4: Implement the Solution

1. User needs to enter 2 input value: FeedTime and FoodNeed
2. Check if real\_time = FeedTime

* False: repeats checking until real-time = FeedTime
* True: step 3

1. FoodDispensed = FoodNeed - FoodOnBowl (Caculate the amount of food needs to dispense)
2. Check if FoodDispensed <= FoodInContainer

* False:

1. Send alert: Insufficient amount of food.
2. Repeat checking until container has sufficient food.

* True: step 5

1. Open dispenser gate
2. Check if FoodOnBowl = FoodNeed

* False: repeats checking until FoodOnBowl = FoodNeed
* True: step 7

1. Close dispenser gate
2. Set system wait time = 5 minutes
3. Check if FoodOnBowl < FoodNeed

* False:

1. Send alert: Your pet did not eat!
2. Send the amount of food remaining
3. Check if FoodInContainer < FoodNeed:
   * False: Repeat the process, starting from checking if real\_time = FeedTime.
   * True:
4. Send alert: Please refill the container!
5. Repeat the process, starting from checking if real\_time = FeedTime.

* True: Repeat the process, starting from checking if real\_time = FeedTime.