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SWEN5232 - Software Construction

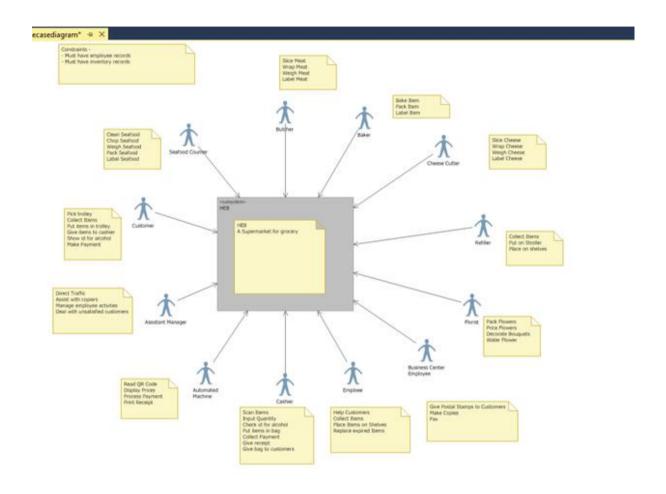
Assignment Number: 8

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Teaching Assistant: Shail Panchal

HEB Supermarket

1. Brainstorm



2. Use Cases

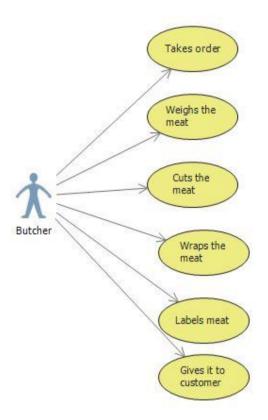


Figure: Use case diagram for Butcher

uc Refiller

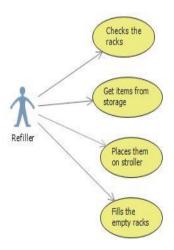


Figure: Use case diagram for Refiller

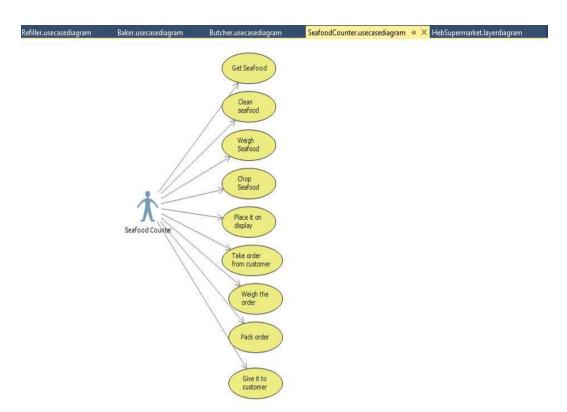


Figure: Use case diagram for Seafood Counter

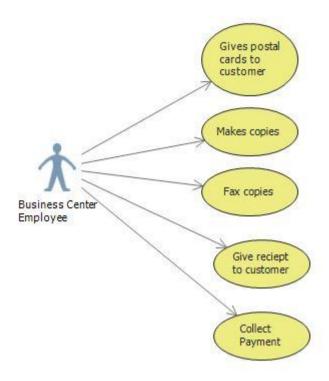


Figure: Use case diagram for Business Center Employee

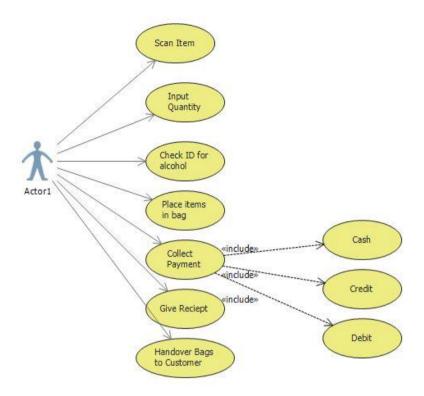


Figure: Use case diagram for Cashier

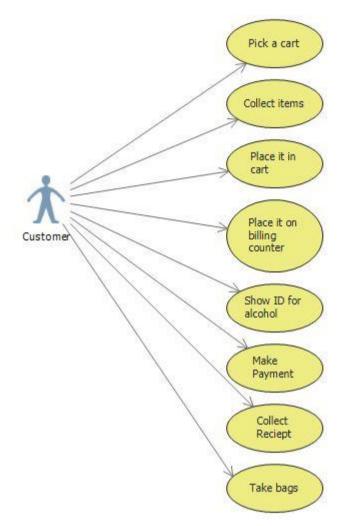


Figure: Use case diagram for Customer

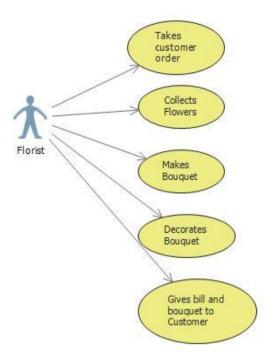


Figure: Use case diagram for Florist

Receives Order

Bakes order sincludes

Bakes order

Packs order

Cakes

Cakes

Cookies

Cookies

Figure: Use case diagram for Baker

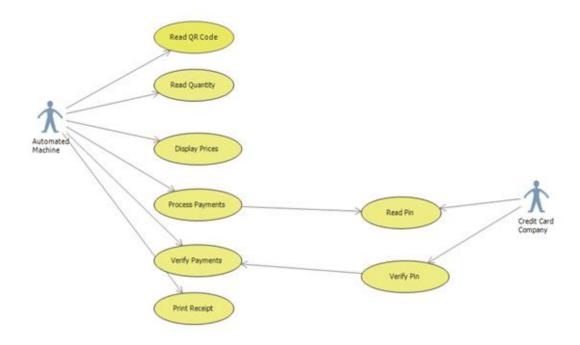


Figure: Use case Diagram for Automated Machine

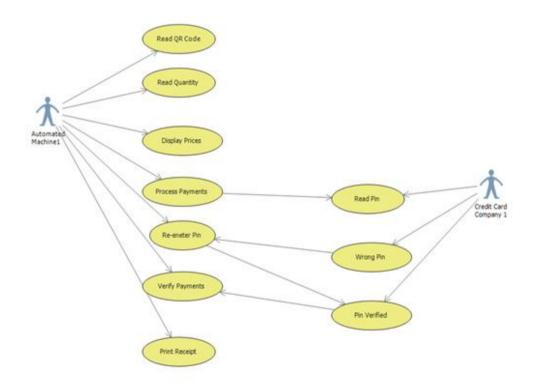


Figure: Use case Diagram for Failure scenario for automated machine

3. Task Analysis Diagram and Specification

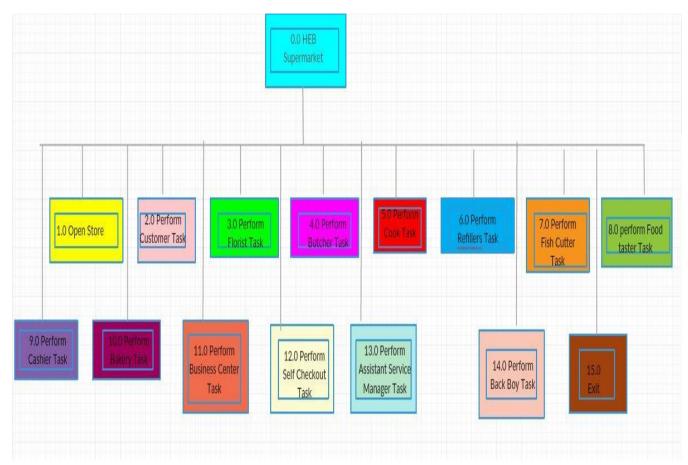


Figure: HEB Supermarket Task Analysis

0.0 HEB Supermarket

1. What is the goal of this task?

The goal of this task is to provide the customers with day to day groceries and household items.

2. What sub-tasks define this task?

The sub-tasks that define this task are

- 1.0 Open Store
- 2.0 Perform Customer Task
- 3.0 Perform Florist Task
- 4.0 Perform Butcher Task
- 5.0 Perform Cook Task
- 6.0 Perform Refillers Task
- 7.0 Perform Fish Butcher Task
- 8.0 Perform Food Taster Task
- 9.0 Perform Cashier Task
- 10.0 Perform Bakery Task
- 11.0 Perform Business Center Task
- 12.0 Perform Self Checkout Task
- 13.0 Perform Assistant Service Manager Task
- 14.0 Perform Back Boy Task
- 15.0 Exit

3. Is this task a subunit of a larger task?

No

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

None.

6. What kinds of outputs/results are expected by performing this task?

Customers can shop for their daily needs and employees can work.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

No

11. Which, if any, primary classes/entities are involved in this subtask?

Employee Database.

12. How can this task fail (or end in non-completion)?

This task can fail in many situations such as no electricity or a machine stops working.

13. How frequently is this task performed?

Whenever the customer plans to visit..

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer wants to shop..

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use (Directions for everything)

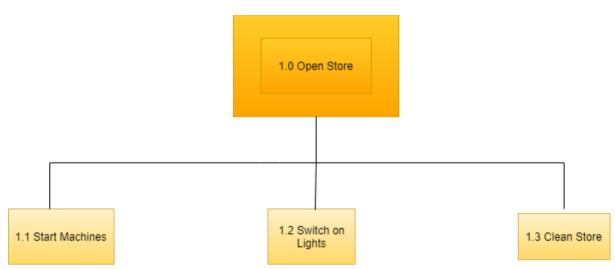


Figure: Open Store Task Analysis

1.0 Open Store

1. What is the goal of this task?

The goal of this task is to open the store for customers

2. What sub-tasks define this task?

The sub-tasks that define this task are

- 1.1 Start Machines
- 1.2 Switch On Lights
- 1.3 Clean Store

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

None

6. What kinds of outputs/results are expected by performing this task?

The store will be open for the customers to shop.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

No

11. Which, if any, primary classes/entities are involved in this subtask?

None.

12. How can this task fail (or end in non-completion)?

This task can fail in many situations such no electricity, failure of machines, no employees to work.

13. How frequently is this task performed?

Everyday

14. How open is this task, especially in terms of its sequence or inputs?

No

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

1.1 Start Machines

1. What is the goal of this task?

The goal of this task is to start the machines like computers, tortilla machines, ovens

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the employees have to be present.

6. What kinds of outputs/results are expected by performing this task?

The store will be open for the customers to shop.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

No

11. Which, if any, primary classes/entities are involved in this subtask?

None

12. How can this task fail (or end in non-completion)?

This task can fail in many situations such no electricity, failure of machines, no employees to work

13. How frequently is this task performed?

Everyday

14. How open is this task, especially in terms of its sequence or inputs?

No

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

1.2 Switch On Lights

1. What is the goal of this task?

The goal of this task is to switch on the lights of the supermarket.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the employees have to be present.

6. What kinds of outputs/results are expected by performing this task?

The store will be open for the customers to shop.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

No

11. Which, if any, primary classes/entities are involved in this subtask?

None.

12. How can this task fail (or end in non-completion)?

This task can fail in many situations such no electricity, no employees to work

13. How frequently is this task performed?

Everyday

14. How open is this task, especially in terms of its sequence or inputs?

No

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

1.3 Clean Store

1. What is the goal of this task?

The goal of this task is to clean the supermarket.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the employees have to be present.

6. What kinds of outputs/results are expected by performing this task?

The store will be open for the customers to shop.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

No

11. Which, if any, primary classes/entities are involved in this subtask?

None.

12. How can this task fail (or end in non-completion)?

This task can fail in many situations such no electricity, failure of machines, no employees to work

13. How frequently is this task performed?

Everyday

14. How open is this task, especially in terms of its sequence or inputs?

No

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

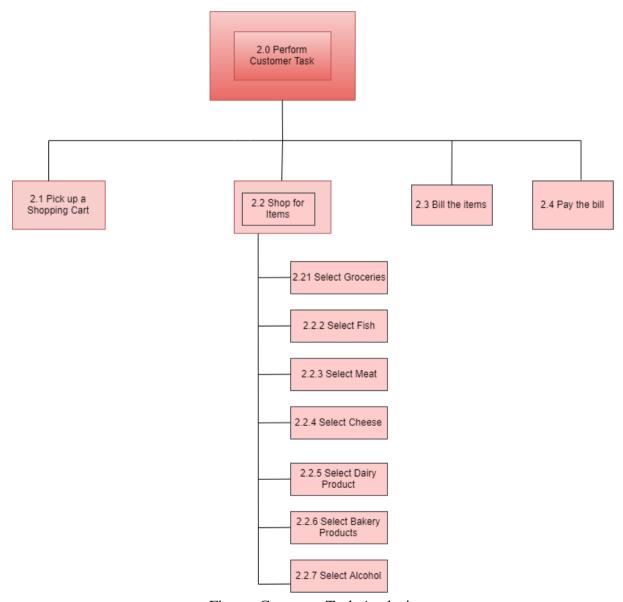


Figure: Customer Task Analysis

2.0 Perform Customer Task

1. What is the goal of this task?

The goal of this task is to let the customers do their shopping from the wide range of choices.

2. What sub-tasks define this task?

The sub-tasks that define this task are

- 2.1 Pick up a shopping cart
- 2.2 Shop for Items
- 2.3 Bill the Items
- 2.4 Pay the bill

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should select a shopping cart to keep the items in it.

6. What kinds of outputs/results are expected by performing this task?

The customers can collect the items i the shopping cart.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? $N_{\rm O}$

11. Which, if any, primary classes/entities are involved in this subtask?

Shopping cart, Items

12. How can this task fail (or end in non-completion)?

This task can fail if no shopping cart is available.

13. How frequently is this task performed?

Whenever the customer plans to visit the supermarket.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer visits the supermarket.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

1. What is the goal of this task?

The goal of this task is to select a shopping cart.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should select a shopping cart to keep the items in it.

6. What kinds of outputs/results are expected by performing this task?

The customers can collect the items i the shopping cart.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

Shopping cart

12. How can this task fail (or end in non-completion)?

This task can fail if no shopping cart is available.

13. How frequently is this task performed?

Whenever the customer plans to visit the supermarket.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer visits the supermarket.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use (How well the user can understand the website flow and perform operations).

2.2 Shop For Items

1. What is the goal of this task?

The goal of this task is to shop items from the supermarket.

2. What sub-tasks define this task?

The sub-tasks that define this task are

- 2.2.1 Select Groceries.
- 2.2.2 Select Fish
- 2.2.3 Select Meat
- 2.2.4 Select Cheese
- 2.2.5 Select Dairy Products
- 2.2.6 Select Bakery Products
- 2.2.7 Select Alcohol
- 3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should have a shopping cart and visits the aisles.

6. What kinds of outputs/results are expected by performing this task?

Customer can buy various groceries

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? $N_{\rm O}$

11. Which, if any, primary classes/entities are involved in this subtask?

Shopping cart. items

12. How can this task fail (or end in non-completion)?

This task can fail if the item stock is over.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the user visits the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

2.2.1 Select Groceries

1. What is the goal of this task?

The goal of this task is to choose the groceries.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should select the grocery.

6. What kinds of outputs/results are expected by performing this task?

Customer can get a wide range of grocery..

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

Shopping cart, grocery items

12. How can this task fail (or end in non-completion)?

This task can fail grocery stock is not good or over.

13. How frequently is this task performed?

Whenever the user plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the user is visits the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

2.2.2 Select Fish

1. What is the goal of this task?

The goal of this task is to choose the fish.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should select the fish.

6. What kinds of outputs/results are expected by performing this task?

Customer can get a wide range of fish..

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

Shopping cart, fish

12. How can this task fail (or end in non-completion)?

This task can fail fish stock is not good or over.

13. How frequently is this task performed?

Whenever the user plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the user is visits the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

2.2.3 Select Meat

1. What is the goal of this task?

The goal of this task is to choose the meat.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should select the meat.

6. What kinds of outputs/results are expected by performing this task?

Customer can get a wide range of meat.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

Shopping cart, meat items

12. How can this task fail (or end in non-completion)?

This task can fail meat stock is not good or over.

13. How frequently is this task performed?

Whenever the user plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the user is visits the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

2.2.4 Select Cheese

1. What is the goal of this task?

The goal of this task is to choose the cheese.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should select the cheese.

6. What kinds of outputs/results are expected by performing this task?

Customer can get a wide range of cheese.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

Shopping cart, cheese items

12. How can this task fail (or end in non-completion)?

This task can fail cheese stock is not good or over.

13. How frequently is this task performed?

Whenever the user plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the user is visits the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

2.2.5 Select Dairy Products

1. What is the goal of this task?

The goal of this task is to choose the dairy products.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should select the dairy products.

6. What kinds of outputs/results are expected by performing this task?

Customer can get a wide range of dairy products...

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

Shopping cart, dairy items

12. How can this task fail (or end in non-completion)?

This task can fail dairy stock is not good or over.

13. How frequently is this task performed?

Whenever the user plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the user is visits the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

2.2.6 Select Bakery Products

1. What is the goal of this task?

The goal of this task is to choose the bakery products.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should select the bakery products.

6. What kinds of outputs/results are expected by performing this task?

Customer can get a wide range of bakery products..

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

Shopping cart, bakery items

12. How can this task fail (or end in non-completion)?

This task can fail bakery stock is not good or over.

13. How frequently is this task performed?

Whenever the user plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the user is visits the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

2.2.7 Select Alcohol

1. What is the goal of this task?

The goal of this task is to choose the alcohol.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should select the alcohol.

6. What kinds of outputs/results are expected by performing this task?

Customer can get a wide range of alcohol..

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? $N_{\rm O}$

11. Which, if any, primary classes/entities are involved in this subtask?

Shopping cart, alcohol items

12. How can this task fail (or end in non-completion)?

This task can fail alcohol stock is not good or over.

13. How frequently is this task performed?

Whenever the user plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the user is visits the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

2.3 Bill The Items

1. What is the goal of this task?

The goal of this task is to bill the items from the cashier.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should go to the billing counter.

6. What kinds of outputs/results are expected by performing this task?

Customer can know the total amount of the shopped items.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask?

Shopped items, shopping cart

12. How can this task fail (or end in non-completion)?

This task can fail if an item is not getting scanned or the computer crashes.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer visits the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

2.4 Pay the Bill

1. What is the goal of this task?

The goal of this task is to pay the total amount to the cashier.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should have cash or credit card.

6. What kinds of outputs/results are expected by performing this task?

Customer can take the purchased items home.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask?

Inventory Database, Shopped items

12. How can this task fail (or end in non-completion)?

This task can fail customer has no cash or the card transaction fails.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

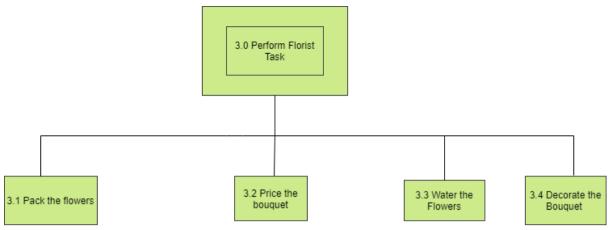


Figure: Florist Task Analysis

3.0 Perform Florist Task

1. What is the goal of this task?

The goal of this task is to prepare, wrap and sell flowers and bouquets.

2. What sub-tasks define this task?

The sub-tasks that define this task are

- 3.1 Pack the flowers
- 3.2 Price the Bouquet
- 3.3 Water the flowers
- 3.4 Decorate the bouquet

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the florist should prepare, water and decorate the flowers into a bouquet.

6. What kinds of outputs/results are expected by performing this task?

Customers can buy flowers and bouquets.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask? Flowers.

12. How can this task fail (or end in non-completion)?

This task can fail if flowers are not in stock or not fresh

13. How frequently is this task performed?

Everyday

14. How open is this task, especially in terms of its sequence or inputs?

Everyday

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

3.1 Pack The Flowers

1. What is the goal of this task?

The goal of this task is to pack the flowers as per the customer's selection.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the flowers should have packing paper.

6. What kinds of outputs/results are expected by performing this task?

Customers get nicely packed flowers.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

Flowers

12. How can this task fail (or end in non-completion)?

This task can fail if flowers are not in stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

3.2 Price The Bouquet

1. What is the goal of this task?

The goal of this task is to price the selected bouqet.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the flowers should be in bouquets

6. What kinds of outputs/results are expected by performing this task?

Customers gets the price.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask?

Flowers

12. How can this task fail (or end in non-completion)?

This task can fail if flowers are not in stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

3.3 Water The Flowers

1. What is the goal of this task?

The goal of this task is to keep the flowers fresh.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the flowers should be sprinkled with water everyday.

6. What kinds of outputs/results are expected by performing this task?

Customers get nicely packed flowers.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

Flowers

12. How can this task fail (or end in non-completion)?

This task can fail if flowers are not in stock.

13. How frequently is this task performed?

Everyday

14. How open is this task, especially in terms of its sequence or inputs?

Everyday

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

3.4 Decorate The Bouquet

1. What is the goal of this task?

The goal of this task is to pack the flowers into bouquet and decorate it with ribbons as per the customer's selection.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the flowers should have packing paper and ribbons.

6. What kinds of outputs/results are expected by performing this task?

Customers get nicely packed flowers.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask?

Flowers, ribbons

12. How can this task fail (or end in non-completion)?

This task can fail if flowers are not in stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

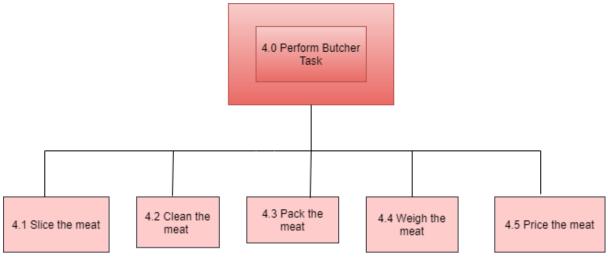


Figure: Butcher Task Analysis

4.0 Perform Butcher Task

1. What is the goal of this task?

The goal of this task is to cut, weigh, wrap and label the meat..

2. What sub-tasks define this task?

The sub-tasks that define this task are

- 4.1 Slice the meat.
- 4.2 Clean the meat.
- 4.3 Pack the meat
- 4.4 Weigh the meat
- 4.5 Price the meat

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the butcher should have meat.

6. What kinds of outputs/results are expected by performing this task?

Customer will receive the packed and labelled meat as per the selection.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

Meat

12. How can this task fail (or end in non-completion)?

This task can fail if meat is spoilt or out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

4.1 Slice The Meat

1. What is the goal of this task?

The goal of this task is to slice the meat as per customer's selection.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the butcher should have meat.

6. What kinds of outputs/results are expected by performing this task?

Meat slices will be available.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes.

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Meat

12. How can this task fail (or end in non-completion)?

This task can fail if meat is spoilt or out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

4.2 Clean The Meat

1. What is the goal of this task?

The goal of this task is to clean the selected meat.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the butcher should have meat.

6. What kinds of outputs/results are expected by performing this task?

Customer will receive cleaned meat.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Meat

12. How can this task fail (or end in non-completion)?

This task can fail if meat is spoilt or out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

4.3 Pack The Meat

1. What is the goal of this task?

The goal of this task is to pack the clean sliced meat.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the butcher should have meat.

6. What kinds of outputs/results are expected by performing this task?

Customer will receive the packed meat as per the selection.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Meat

12. How can this task fail (or end in non-completion)?

This task can fail if meat is spoilt or out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

4.4 Weigh The Meat

1. What is the goal of this task?

The goal of this task is to weigh the packed meat.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the butcher should have meat.

6. What kinds of outputs/results are expected by performing this task?

Customer will receive the packed meat as per the selection.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Meat

12. How can this task fail (or end in non-completion)?

This task can fail if meat is spoilt or out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

4.5 Price The Meat

1. What is the goal of this task?

The goal of this task is to put a price tag as per the weight of the meat...

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the butcher should have meat.

6. What kinds of outputs/results are expected by performing this task?

Customer will receive the packed and labelled meat as per the selection.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Meat

12. How can this task fail (or end in non-completion)?

This task can fail if meat is spoilt or out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

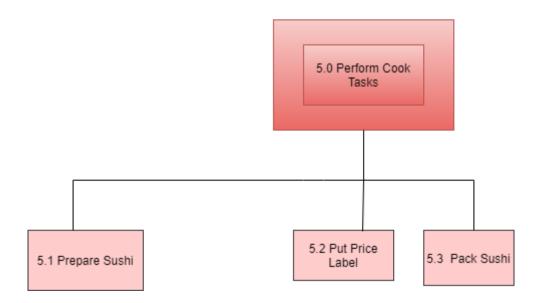


Figure: Cook Task Analysis

5.0 Perform Cook Task

1. What is the goal of this task?

The goal of this task is to cook sushi..

2. What sub-tasks define this task?

The sub-tasks that define this task are

- 5.1 Prepare Sushi
- 5.2 Put Price Label
- 5.3 Pack Sushi.
- 3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the cook should know the sushi preparation

6. What kinds of outputs/results are expected by performing this task?

Customer can buy sushi.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

Sushi

12. How can this task fail (or end in non-completion)?

This task can fail if cook is not present or sushi is out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

1. What is the goal of this task?

The goal of this task is to cook sushi..

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the cook should know the sushi preparation

6. What kinds of outputs/results are expected by performing this task?

Customer can buy sushi.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

Sushi

12. How can this task fail (or end in non-completion)?

This task can fail if cook is not present or sushi is out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

5.2 Pack Sushi

1. What is the goal of this task?

The goal of this task is to pack the cooked sushi..

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the cook should know the sushi preparation

6. What kinds of outputs/results are expected by performing this task?

Customer can buy sushi.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask?

Sushi

12. How can this task fail (or end in non-completion)?

This task can fail if cook is not present or sushi is out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

5.3 Put Price Label

1. What is the goal of this task?

The goal of this task is to put a price tag on packed sushi..

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

No

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the cook should know the sushi preparation

6. What kinds of outputs/results are expected by performing this task?

Customer can buy sushi.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one? No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask? Sushi

12. How can this task fail (or end in non-completion)?

This task can fail if cook is not present or sushi is out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

6.0 Perform Refiller
Task

6.1 Get items from
Storage

6.2 Put items on
Strollers

6.3 Place the
items in
appropriate
shelves

Figure: Refiller Task Analysis

6.0 Perform Refillers Task

1. What is the goal of this task?

The goal of this task is to refiller the items

2. What sub-tasks define this task?

The sub-tasks that define this task are

- 6.1 Get Items from storage
- 6.2 Put items on strollers
- 6.3 Place the items in appropriate shelves
- 3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the employee should have items in the storage

6. What kinds of outputs/results are expected by performing this task?

Customers will be provided by the stock.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask?

Items

12. How can this task fail (or end in non-completion)?

This task can fail items are out of stock

13. How frequently is this task performed?

As per the stock gets over

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the stock gets over.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

6.1 Get Items From Storage

1. What is the goal of this task?

The goal of this task is to fetch the items from the storage so that it is available for the customer.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the employee should have items in the storage

6. What kinds of outputs/results are expected by performing this task?

Customers will be provided by the stock.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

Items

12. How can this task fail (or end in non-completion)?

This task can fail items are out of stock

13. How frequently is this task performed?

As per the stock gets over

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the stock gets over.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

6.2 Put Items on Strollers

1. What is the goal of this task?

The goal of this task is to place the fetched items on the strollers so that it will be easy to carry the items.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the employee should have items in the storage

6. What kinds of outputs/results are expected by performing this task?

Customers will be provided by the stock.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Items

12. How can this task fail (or end in non-completion)?

This task can fail items are out of stock

13. How frequently is this task performed?

As per the stock gets over

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the stock gets over.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

6.3 Place The Items In Appropriate Shelves

1. What is the goal of this task?

The goal of this task is to place the items off the stroller on the appropriate shelves.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the employee should have items in the storage

6. What kinds of outputs/results are expected by performing this task?

Customers will be provided by the stock.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask? Items

12. How can this task fail (or end in non-completion)?

This task can fail items are out of stock

13. How frequently is this task performed?

As per the stock gets over

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the stock gets over.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

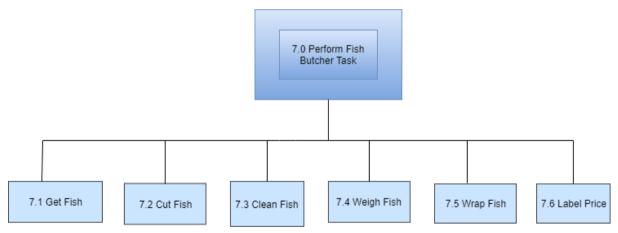


Figure: Butcher Task Analysis

7.0 Perform Fish Butcher Task

1. What is the goal of this task?

The goal of this task is to cut, weigh, wrap and label the fish.

2. What sub-tasks define this task?

The sub-tasks that define this task are

- 7.1 Get Fish
- 7.2 Cut Fish
- 7.3 Clean Fish
- 7.4 Weigh Fish
- 7.5 Wrap Fish
- 7.6 Label Fish

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the butcher should have fish.

6. What kinds of outputs/results are expected by performing this task?

Customer will receive the packed and labelled fish as per the selection.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask?

fish

12. How can this task fail (or end in non-completion)?

This task can fail if fish is spoilt or out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

7.1 Get Fish

1. What is the goal of this task?

The goal of this task is to get the fish from storage and display it on the counter.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the butcher should have fish.

6. What kinds of outputs/results are expected by performing this task?

Customer will receive the packed and labelled fish as per the selection.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

fish

12. How can this task fail (or end in non-completion)?

This task can fail if fish is spoilt or out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

7.2 Cut Fish

1. What is the goal of this task?

The goal of this task is to slice the fish as per customer's selection.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the butcher should have fish.

6. What kinds of outputs/results are expected by performing this task?

Fish slices will be available.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask? Meat

12. How can this task fail (or end in non-completion)?

This task can fail if fish is spoilt or out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

7.3 Clean Fish

1. What is the goal of this task?

The goal of this task is to clean the selected fish.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the butcher should have fish.

6. What kinds of outputs/results are expected by performing this task?

Customer will receive cleaned fish.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Meat

12. How can this task fail (or end in non-completion)?

This task can fail if fish is spoilt or out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

7.4 Weigh Fish

1. What is the goal of this task?

The goal of this task is to weigh the packed meat.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the butcher should have meat.

6. What kinds of outputs/results are expected by performing this task?

Customer will receive the packed meat as per the selection.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

12. How can this task fail (or end in non-completion)?

This task can fail if meat is spoilt or out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

7.5 Wrap Fish

1. What is the goal of this task?

The goal of this task is to pack the clean sliced fish.

2. What sub-tasks define this task?

None.

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the butcher should have fish.

6. What kinds of outputs/results are expected by performing this task?

Customer will receive the packed fishas per the selection.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Meat

12. How can this task fail (or end in non-completion)?

This task can fail if fish is spoilt or out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

7.6 Label Price

1. What is the goal of this task?

The goal of this task is to put a price tag as per the weight of the fish..

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the butcher should have fish.

6. What kinds of outputs/results are expected by performing this task?

Customer will receive the packed and labelled fish as per the selection.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Meat

12. How can this task fail (or end in non-completion)?

This task can fail if fish is spoilt or out of stock.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

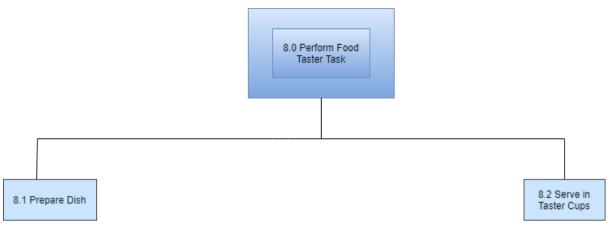


Figure: Food Taster Task Analysis

8.0 Perform Food Taster Task

1. What is the goal of this task?

The goal of this task is to prepare food and give it for tasting to the customers so that they can taste and buy.

2. What sub-tasks define this task?

The sub-tasks that define this task are

- 8.1 Prepare Dish
- 8.2 Serve in Taster Cups
- 3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the employee should have food ready.

6. What kinds of outputs/results are expected by performing this task?

Customers can taste and buy the food.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

Food

12. How can this task fail (or end in non-completion)?

This task can fail in if food is out of stock or food packets are spoilt.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

8.1 Prepare Dish

1. What is the goal of this task?

The goal of this task is to prepare the food so that customer can taste it.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the employee should have food ready.

6. What kinds of outputs/results are expected by performing this task?

Customers can taste and buy the food.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

Food

12. How can this task fail (or end in non-completion)?

This task can fail in if food is out of stock or food packets are spoilt.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like

ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

8.2 Serve in Cups

1. What is the goal of this task?

The goal of this task is to serve the prepared food in the tasting cups so that the customer can taste and buy.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the employee should have food ready.

6. What kinds of outputs/results are expected by performing this task?

Customers can taste and buy the food.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? $N_{\rm O}$

11. Which, if any, primary classes/entities are involved in this subtask?

Food

12. How can this task fail (or end in non-completion)?

This task can fail in if food is out of stock or food packets are spoilt.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

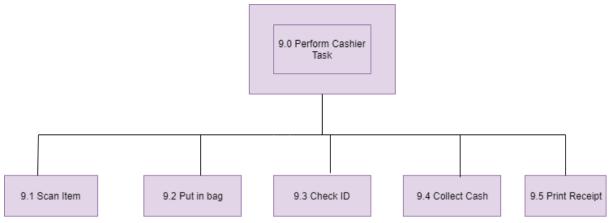


Figure: Cashier Task Analysis

9.0 Perform Cashier Task

1. What is the goal of this task?

The goal of this task is to bill the items for the customers and collect the payment.

2. What sub-tasks define this task?

The sub-tasks that define this task are

- 9.1 Scan Item
- 9.2 Put in bag
- 9.3 Check ID
- 9.4 Collect Cash
- 9.5 Print Receipt

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the cashier should scan the items.

6. What kinds of outputs/results are expected by performing this task?

Customers can know the total amount to pay.

7. What automatic actions does this task expect from the system?

Read the item scan code

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Database, Items

12. How can this task fail (or end in non-completion)?

This task can fail if items cannot be scanned or if the machine crashes.

13. How frequently is this task performed?

Whenever the customer plans to visit the store and buy items.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store and buy items.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

9.1 Scan Item

1. What is the goal of this task?

The goal of this task is to scan the item to know the amount..

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the cashier should scan the items.

6. What kinds of outputs/results are expected by performing this task?

Customers can know the total amount to pay.

7. What automatic actions does this task expect from the system?

Read the item scan code

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Database, Items

12. How can this task fail (or end in non-completion)?

This task can fail if items cannot be scanned or if the machine crashes.

13. How frequently is this task performed?

Whenever the customer plans to visit the store and buy items.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store and buy items.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

9.2 Put In A Bag

1. What is the goal of this task?

The goal of this task is to place the item in a bag after the scanning is done.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the cashier should scan the items.

6. What kinds of outputs/results are expected by performing this task?

Customers can know the total amount to pay.

7. What automatic actions does this task expect from the system?

Read the item scan code

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Database, Items

12. How can this task fail (or end in non-completion)?

This task can fail if items cannot be scanned or if the machine crashes.

13. How frequently is this task performed?

Whenever the customer plans to visit the store and buy items.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store and buy items.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

9.3 Check ID

1. What is the goal of this task?

The goal of this task is to check the ID if the customer buys alcohol.

2. What sub-tasks define this task?

none

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the cashier should scan alcohol.

6. What kinds of outputs/results are expected by performing this task?

Customers can know the total amount to pay.

7. What automatic actions does this task expect from the system?

Read the item scan code

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Database, Items

12. How can this task fail (or end in non-completion)?

This task can fail if items cannot be scanned or if the machine crashes.

13. How frequently is this task performed?

Whenever the customer plans to visit the store and buy items.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store and buy items.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

9.4 Collect Cash

1. What is the goal of this task?

The goal of this task is to bill the items for the customers and collect the payment.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the cashier should scan the items.

6. What kinds of outputs/results are expected by performing this task?

Customers can know the total amount to pay.

7. What automatic actions does this task expect from the system?

Read the item scan code

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Database, Items

12. How can this task fail (or end in non-completion)?

This task can fail if items cannot be scanned or if the machine crashes.

13. How frequently is this task performed?

Whenever the customer plans to visit the store and buy items.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store and buy items.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

9.5 Print Receipt

1. What is the goal of this task?

The goal of this task is to bill the items for the customers and print the bill.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the cashier should scan the items.

6. What kinds of outputs/results are expected by performing this task?

Customers can know the total amount to pay.

7. What automatic actions does this task expect from the system?

Read the item scan code

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Database, Items

12. How can this task fail (or end in non-completion)?

This task can fail if items cannot be scanned or if the machine crashes.

13. How frequently is this task performed?

Whenever the customer plans to visit the store and buy items.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store and buy items.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

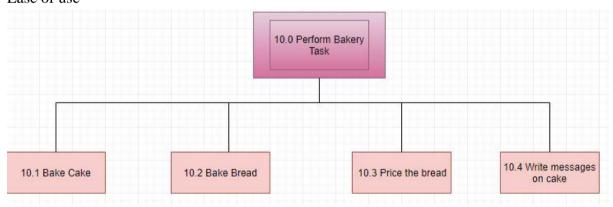


Figure: Bakery Task Analysis

10.0 Perform Bakery Task

1. What is the goal of this task?

The goal of this task is to perform bakery tasks.

2. What sub-tasks define this task?

The sub-tasks that define this task are

10.1 Bake cake

10.2 Bake Bread

10.3 Price the bread

10.4 Write message on cake

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the user should know how to bake.

6. What kinds of outputs/results are expected by performing this task?

A baked cake, baked bread, message on cake.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask?

No.

12. How can this task fail (or end in non-completion)?

This task can fail in many situations such as if don't know baking.

13. How frequently is this task performed?

Whenever there is a order been placed.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when there is requirement.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

10.1 Bake Cake

1. What is the goal of this task?

The goal of this task is to bake a cake.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the user should have all ingredients.

6. What kinds of outputs/results are expected by performing this task?

A cake.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask?

None

12. How can this task fail (or end in non-completion)?

This task can fail in many situations such as when no baking skills.

13. How frequently is this task performed?

Whenever there is a need.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when there is need of baking cake.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

10.2 Bake Bread

1. What is the goal of this task?

The goal of this task is to bake a bread.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the user should know baking and have ingredients needed.

6. What kinds of outputs/results are expected by performing this task?

Baked bread.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

None

12. How can this task fail (or end in non-completion)?

This task can fail in many situations such as if no ingredients or if no baking skills.

13. How frequently is this task performed?

Whenever there is a need.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the need of baking bread.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

10.3 Price the Bread

1. What is the goal of this task?

The goal of this task is to pricing the bread.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the user should have a bread.

6. What kinds of outputs/results are expected by performing this task?

Bread with price label on it.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

No

11. Which, if any, primary classes/entities are involved in this subtask?

None

12. How can this task fail (or end in non-completion)?

This task can fail in many situations such as if the bread is not there or when bread pricing system is not known..

13. How frequently is this task performed?

Whenever there is a bread which needs to be priced.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the bread is there to be priced.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

10.4 Write Messages on Cake

1. What is the goal of this task?

The goal of this task is to write message on cake.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Nο

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the user should have cake.

6. What kinds of outputs/results are expected by performing this task?

Message written on cake.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask?

None.

12. How can this task fail (or end in non-completion)?

This task can fail in many situations such asif message not clear or cake not there.

13. How frequently is this task performed?

Whenever there is a cake ordered with some message.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when cake ordered with some message.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

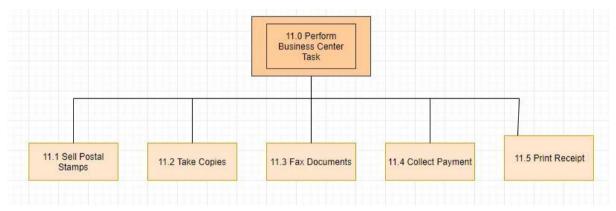


Figure: Business Center Task

11.0 Perform Business Center Task

1. What is the goal of this task?

The goal of this task is to perform business center tasks.

2. What sub-tasks define this task?

The sub-tasks that define this task are

- 11.1 Sell Postage Stamps
- 11.2 Take Copies
- 11.3 Fax Documents
- 11.4 Collect payment
- 11.5 Print Receipt

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should tell which kind of service he/she wants.

6. What kinds of outputs/results are expected by performing this task?

Customers pay for the services used.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask?

Postage stamps, copies, fax documents

12. How can this task fail (or end in non-completion)?

This task can fail if stamps are out of stock or machines crashes.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

11.1 Sell Postage Stamps

1. What is the goal of this task?

The goal of this task is to sell postal stamps to the customers.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should tell which kind of service he/she wants.

6. What kinds of outputs/results are expected by performing this task?

Customers pay for the services used.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Postage stamps

12. How can this task fail (or end in non-completion)?

This task can fail if stamps are out of stock or machines crashes.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

11.2 Print out Copies

1. What is the goal of this task?

The goal of this task is to print out copies as per customer needs.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should tell which kind of service he/she wants.

6. What kinds of outputs/results are expected by performing this task?

Customers pay for the services used.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Copies

12. How can this task fail (or end in non-completion)?

This task can fail if copier machine crashes.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

11.3 Fax Documents

1. What is the goal of this task?

The goal of this task is to fax the documents as per the customer needs.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should tell which kind of service he/she wants.

6. What kinds of outputs/results are expected by performing this task?

Customers pay for the services used.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask?

Fax documents

12. How can this task fail (or end in non-completion)?

This task can fail if stamps are out of stock or machines crashes.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

11.4 Collect Payment

1. What is the goal of this task?

The goal of this task is to collect the payment after the services are provided.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should tell which kind of service he/she wants.

6. What kinds of outputs/results are expected by performing this task?

Customers pay for the services used.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Postage stamps, copies, fax documents

12. How can this task fail (or end in non-completion)?

This task can fail if stamps are out of stock or machines crashes.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

11.5 Print Receipt

1. What is the goal of this task?

The goal of this task is to print the receipt after the services are provided.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should tell which kind of service he/she wants.

6. What kinds of outputs/results are expected by performing this task?

Customers pay for the services used.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

Postage stamps, copies, fax documents

12. How can this task fail (or end in non-completion)?

This task can fail if stamps are out of stock or machines crashes.

13. How frequently is this task performed?

Whenever the customer plans to visit the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer plans to visit the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

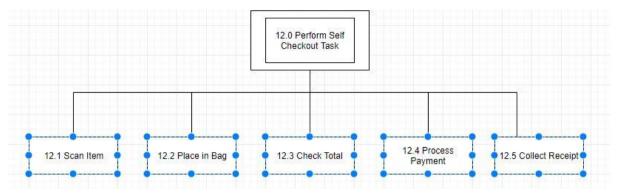


Figure: Self Checkout Task Analysis

12.0 Perform Self CheckOut Task

1. What is the goal of this task?

The goal of this task is to bill the items on self checkout kiosk.

2. What sub-tasks define this task?

The sub-tasks that define this task are

- 12.1 Scan Item
- 12.2 Place in Bag
- 12.3 Check Total
- 12.4 Process Payment
- 12.5 Collect Receipt

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should touch the screen and scan the items

6. What kinds of outputs/results are expected by performing this task?

Customer will be able to pay for his/her shopping.

7. What automatic actions does this task expect from the system?

After scanning, the price of items to be displayed.

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Database.

12. How can this task fail (or end in non-completion)?

This task can fail if item is not being scanned, payment process fails or the machine crashes.

13. How frequently is this task performed?

Whenever the customer purchases items from the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer purchases items from the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

12.1 Scan Item

1. What is the goal of this task?

The goal of this task is to bill the items on self checkout kiosk.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should touch the screen and scan the items

6. What kinds of outputs/results are expected by performing this task?

Customer will be able to pay for his/her shopping.

7. What automatic actions does this task expect from the system?

After scanning, the price of items to be displayed.

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask? Database.

12. How can this task fail (or end in non-completion)?

This task can fail if item is not being scanned or the machine crashes.

13. How frequently is this task performed?

Whenever the customer purchases items from the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer purchases items from the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

12.2 Place In Bag

1. What is the goal of this task?

The goal of this task is to place the scanned items in the bag.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should touch the screen and scan the items

6. What kinds of outputs/results are expected by performing this task?

Customer will be able to pay for his/her shopping.

7. What automatic actions does this task expect from the system?

After scanning, the price of items to be displayed.

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Database.

12. How can this task fail (or end in non-completion)?

This task can fail if item is not being scanned or the machine crashes.

13. How frequently is this task performed?

Whenever the customer purchases items from the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer purchases items from the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

12.3 Check Total Amount

1. What is the goal of this task?

The goal of this task is to check the total displayed amount and confirm it.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should touch the screen and scan the items

6. What kinds of outputs/results are expected by performing this task?

Customer will be able to pay for his/her shopping.

7. What automatic actions does this task expect from the system?

After scanning, the price of items to be displayed.

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Database.

12. How can this task fail (or end in non-completion)?

This task can fail if item is not being scanned or the machine crashes.

13. How frequently is this task performed?

Whenever the customer purchases items from the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer purchases items from the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

12.4 Process Payment

1. What is the goal of this task?

The goal of this task is to pay for the items via card for the billed items.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should touch the screen and scan the items

6. What kinds of outputs/results are expected by performing this task?

Customer will be able to pay for his/her shopping.

7. What automatic actions does this task expect from the system?

After scanning, the price of items to be displayed.

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Database.

12. How can this task fail (or end in non-completion)?

This task can fail if item is not being scanned, payment process fails or the machine crashes.

13. How frequently is this task performed?

Whenever the customer purchases items from the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer purchases items from the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

12.5 Collect Receipt

1. What is the goal of this task?

The goal of this task is to collect the receipt of the paid amount.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the customer should touch the screen and scan the items

6. What kinds of outputs/results are expected by performing this task?

Customer will be able to pay for his/her shopping.

7. What automatic actions does this task expect from the system?

After scanning, the price of items to be displayed.

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? Yes

11. Which, if any, primary classes/entities are involved in this subtask?

Database.

12. How can this task fail (or end in non-completion)?

This task can fail if item is not being scanned, payment process fails or the machine crashes.

13. How frequently is this task performed?

Whenever the customer purchases items from the store.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the customer purchases items from the store.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

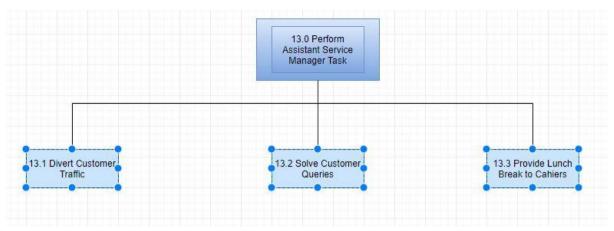


Figure: Assistant Service Manager Task Analysis

13.0 Perform Assistant Service Manager Task

1. What is the goal of this task?

The goal of this task is to perform various Assistant Service Manager tasks.

2. What sub-tasks define this task?

The sub-tasks that define this task are

- 13.1 Divert Customer Traffic
- 13.2 Solve Customer Oueries
- 13.3 Provide Lunch Break to Cashiers

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

None

None

6. What kinds of outputs/results are expected by performing this task?

Help to customers and cashiers.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

12. How can this task fail (or end in non-completion)?

This task can fail if the Assistant Service Manager is not present.

13. How frequently is this task performed?

Everyday

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the Assistant Service Manager have customers.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

13.1 Divert Customer Traffic

1. What is the goal of this task?

The goal of this task is to divert the customer traffic to different cash counters so that a particular counter does not get over crowded.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

None

6. What kinds of outputs/results are expected by performing this task?

Help to customers and cashiers.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask?

12. How can this task fail (or end in non-completion)?

This task can fail if the Assistant Service Manager is not present.

13. How frequently is this task performed?

Everyday

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the Assistant Service Manager have customers.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like

ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

13.2 Solve Customer Queries

1. What is the goal of this task?

The goal of this task is to solve the queries, issues and problems of unsatisfied customers..

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

None

6. What kinds of outputs/results are expected by performing this task?

Help to customers and cashiers.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

No

11. Which, if any, primary classes/entities are involved in this subtask?

none

12. How can this task fail (or end in non-completion)?

This task can fail if the Assistant Service Manager is not present.

13. How frequently is this task performed?

Everyday

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the Assistant Service Manager have customers.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

1. What is the goal of this task?

The goal of this task is to provide lunch breaks to the cashiers turn by turn so that the business will keep on going and the cashiers will get a break.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

None

6. What kinds of outputs/results are expected by performing this task?

Help to customers and cashiers.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask?

12. How can this task fail (or end in non-completion)?

This task can fail if the Assistant Service Manager is not present.

13. How frequently is this task performed?

Everyday

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the Assistant Service Manager have customers.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

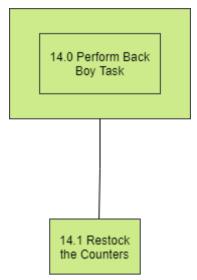


Figure: Back Boy Task Analysis

14.0 Perform Back Boy Task

1. What is the goal of this task?

The goal of this task is to restock the counters.

2. What sub-tasks define this task?

The sub-tasks that define this task are

14.1 Restock the counters

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the back boy should have sufficient stock

6. What kinds of outputs/results are expected by performing this task?

Customers will be provided with fresh stocks..

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? No

11. Which, if any, primary classes/entities are involved in this subtask? Inventory

12. How can this task fail (or end in non-completion)?

This task can fail if stock is not available or stock is spoilt..

13. How frequently is this task performed?

Whenever the stock is about to get over.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the stock is about to get over.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

14.1 Restock the Counters

1. What is the goal of this task?

The goal of this task is to restock the counters.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the back boy should have sufficient stock

6. What kinds of outputs/results are expected by performing this task?

Customers will be provided with fresh stocks..

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Νo

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed? $N_{\rm O}$

11. Which, if any, primary classes/entities are involved in this subtask?

Inventory

12. How can this task fail (or end in non-completion)?

This task can fail if stock is not available or stock is spoilt..

13. How frequently is this task performed?

Whenever the stock is about to get over.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the stock is about to get over.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like

ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use

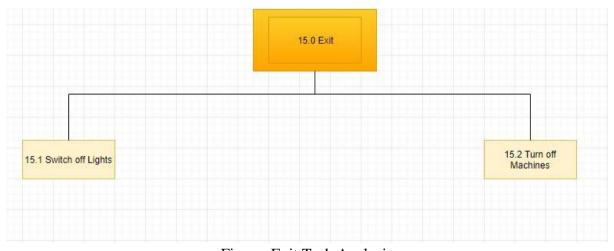


Figure: Exit Task Analysis

15.0 Exit

1. What is the goal of this task?

The goal of this task is to close the supermarket.

2. What sub-tasks define this task?

The sub-tasks that define this task are

15.1 Switch off lights

15.2 Turn off machines

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the user should be present in the supermarket to perform closing.

6. What kinds of outputs/results are expected by performing this task?

Result is that supermarket is closed.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

Time should be recorded.

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

Yes

11. Which, if any, primary classes/entities are involved in this subtask?

None

12. How can this task fail (or end in non-completion)?

This task can fail in many situations such as if machines are not turned off properly or else when lights are not turned off.

13. How frequently is this task performed?

Whenever the supermarket is opened it needs to be closed.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the supermarket is open.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

15.1 Switch Off Lights

1. What is the goal of this task?

The goal of this task is to switch off lights.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the user should be in supermarket and need to know where to off and what lights to off.

6. What kinds of outputs/results are expected by performing this task?

Lights are turned off.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

Yes

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

Yes

11. Which, if any, primary classes/entities are involved in this subtask?

No

12. How can this task fail (or end in non-completion)?

This task can fail in many situations such as if user doesn't know where switches are there and if user isn't in supermarket.

13. How frequently is this task performed?

Whenever the supermarket is open.

14. How open is this task, especially in terms of its sequence or inputs?

This task is open every time when the supermarket is open.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

15.2 Turn off Machines

1. What is the goal of this task?

The goal of this task is to turn off machines.

2. What sub-tasks define this task?

None

3. Is this task a subunit of a larger task?

Yes

4. What non-interface functions does this task require?

None

5. What kinds of inputs or actions does this task require from the user?

To perform this task the user should be present in supermarket and needs to have access to machines..

6. What kinds of outputs/results are expected by performing this task?

The machines are turned off.

7. What automatic actions does this task expect from the system?

None

8. What special characteristics of this task should we record?

None

9. In this subtree, is there a task that must come before this one?

No

10. In this subtree, is there a task for which this one is required to be immediately preceding? Is there any specific sequence in which the tasks must be performed?

11. Which, if any, primary classes/entities are involved in this subtask?

None

12. How can this task fail (or end in non-completion)?

This task can fail in many situations such as if the machines are not turned off properly.

13. How frequently is this task performed?

Whenever the supermarket is opened.

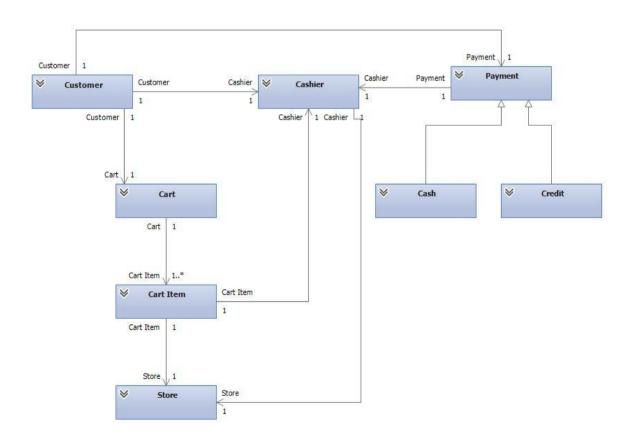
14. How open is this task, especially in terms of its sequence or inputs?

This is open whenever the supermarket is open.

15. What if any are the specific usability expectations (e.g. ease of use) for this task and how do we anticipate determining if we have satisfied the user expectations? (Hint: like ease of use, ease of learning. As you specify this, be specific as to what "ease of use" and other usability expectations mean and how you will evaluate these.)

Ease of use.

4. Business Model



5. Activity Diagram

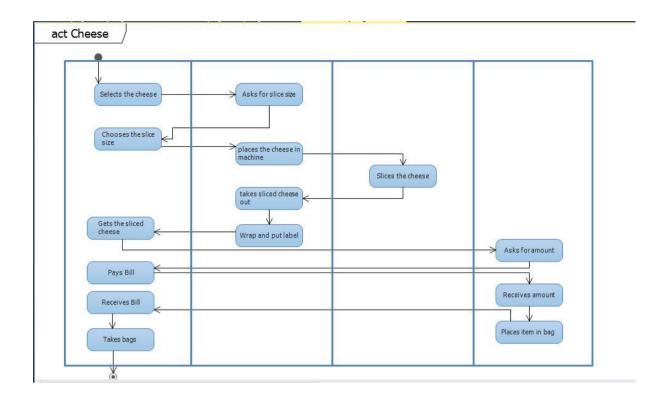


Figure: Activity Diagram for Cheese Ordering by Customer

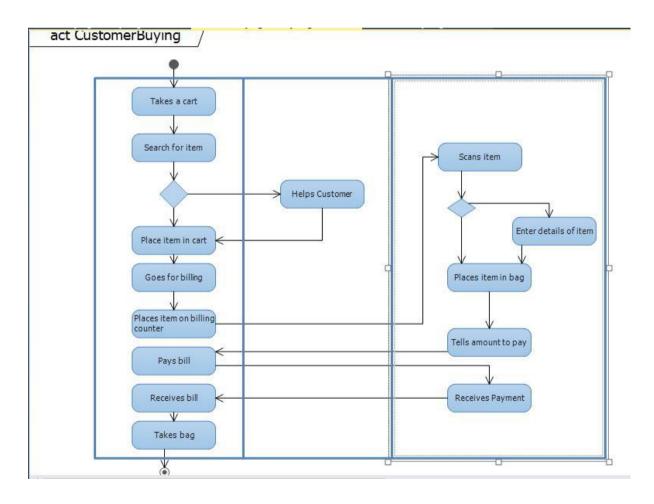


Figure: Activity Diagram for Customer Buying

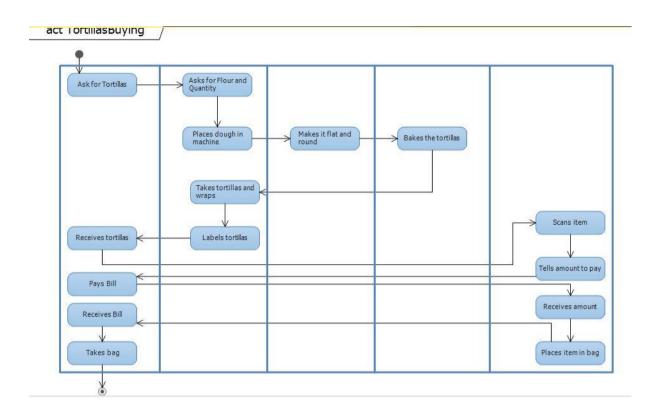


Figure: Activity Diagram for Customer Buying Tortillas

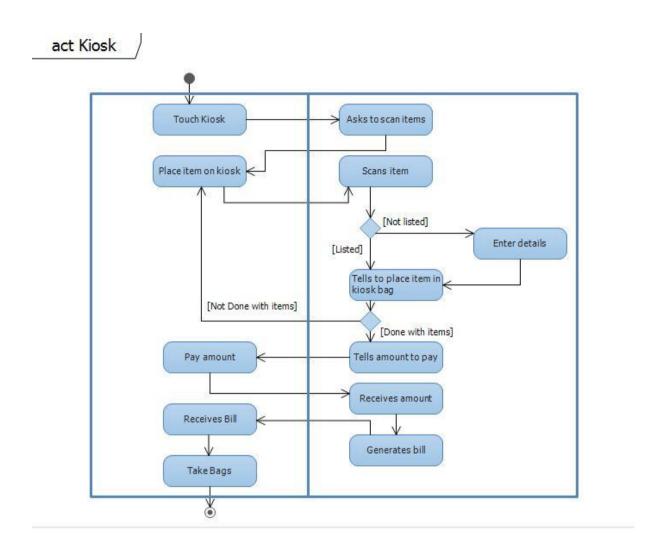


Figure: Activity Diagram for Kiosk

6. State Diagram

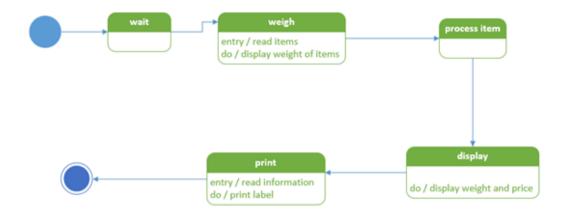


Figure: State Diagram for Dry Fruits Machine

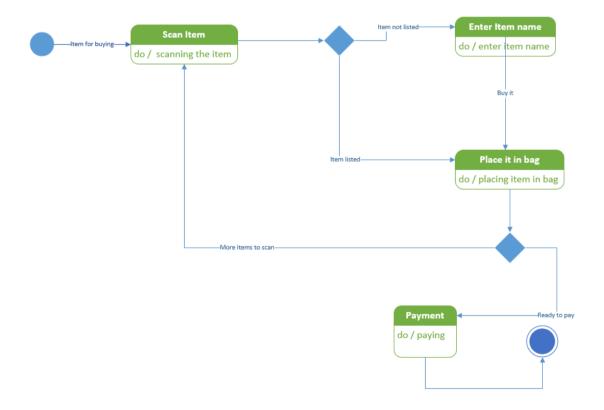


Figure: State Diagram for Customer Buying At Kiosk

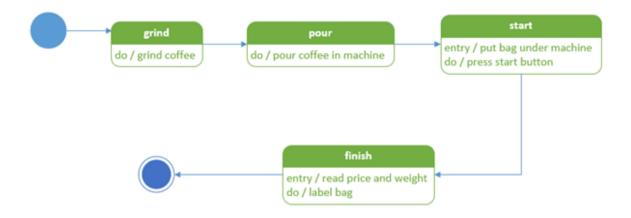


Figure: State Diagram for Coffee Machine

7. Architecture Diagram

