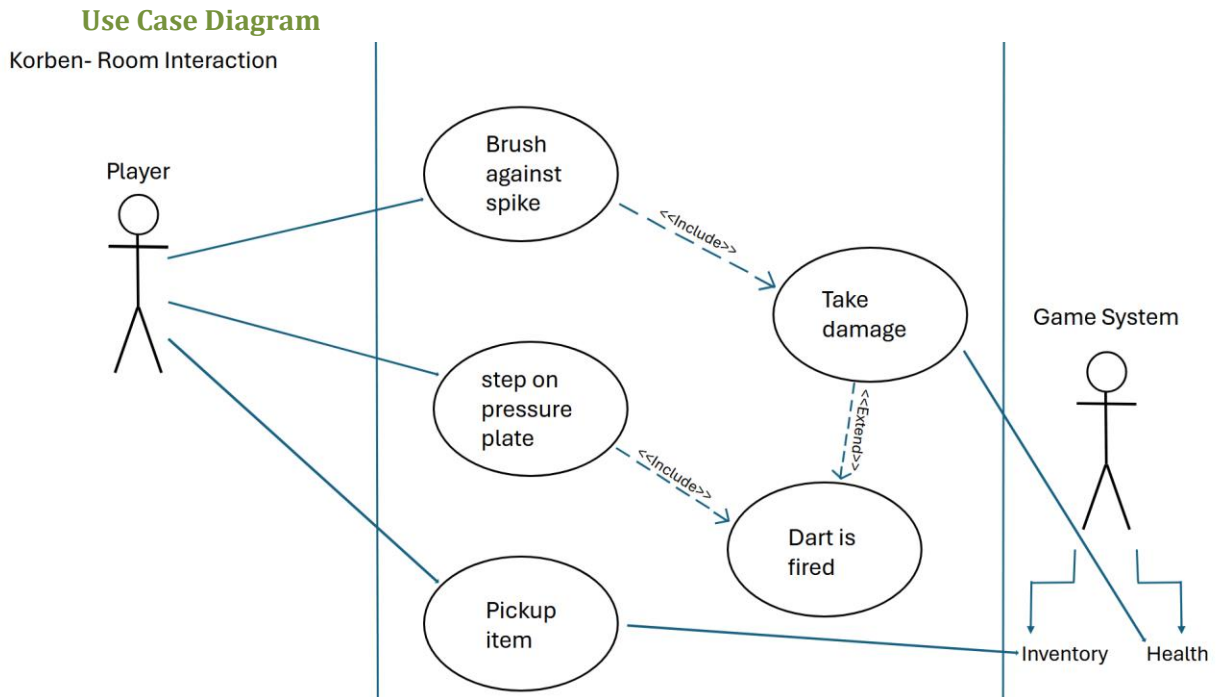


1. Brief introduction __/3

Room Interactions are elements of the room that the player can manipulate through the controls. Some examples for our games include spikey traps, shooting traps, and puzzle keys (ingredients for pasta).

2. Use case diagram with scenario __/14



Scenarios

[You will need a scenario for each use case]

Name: Brush against spike

Summary: The player brushes up against a spikey trap.

Actors: Player, Game system

Preconditions: Player has entered the room.

Basic sequence:

Step 1: Player enters the room

Step 2: Player presses any movement key that puts them in contact with spike

Step 3: Spike causes damage to player in the form of a quarter of a heart per contact

Step 4: an additional $\frac{1}{4}$ of a heart of damage is done for each additional second the player remains on the spike

Post conditions: Amount of damage done is reflected in the health section of the game system

Priority: 2*

ID: C01

*The priorities are 1 = must have, 2 = essential, 3 = nice to have.

Name: Step on pressure plate

Summary: The player walks onto to a pressure plate which launches a dart

Actors: Player, Game system

Preconditions: Player has entered the room.

Basic sequence:

Step 1: Player steps on pressure plate

Step 2: Dart is fired from wall

Step 3: Player moves out of path of dart

Exceptions:

Step 2.1: dart collides with player

Step 2.2: half heart of damage is done to player

Step 2.3: Damage is recorded to the health system in the game manager

Post conditions: Nothing happens, or player has ½ heart less health

Priority: 2*

ID: C02

*The priorities are 1 = must have, 2 = essential, 3 = nice to have.

Name: Pick up ingredient

Summary: player stands on ingredient and picks it up

Actors: Player, Game system

Preconditions: Player has entered the room.

Basic sequence:

Step 1: Player stands on ingredient

Step 2: Player presses a pickup button

Step 3: Ingredient disappears from the map

Step 4: Item name and description is added to the inventory system

Post conditions: Item is added to player inventory in the game system

Priority: 1*

ID: C03

*The priorities are 1 = must have, 2 = essential, 3 = nice to have.

3. Data Flow diagram(s) from Level 0 to process description for your feature ____14

Context Diagram

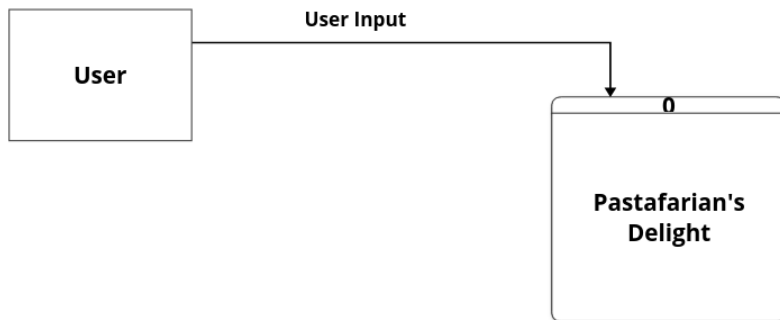
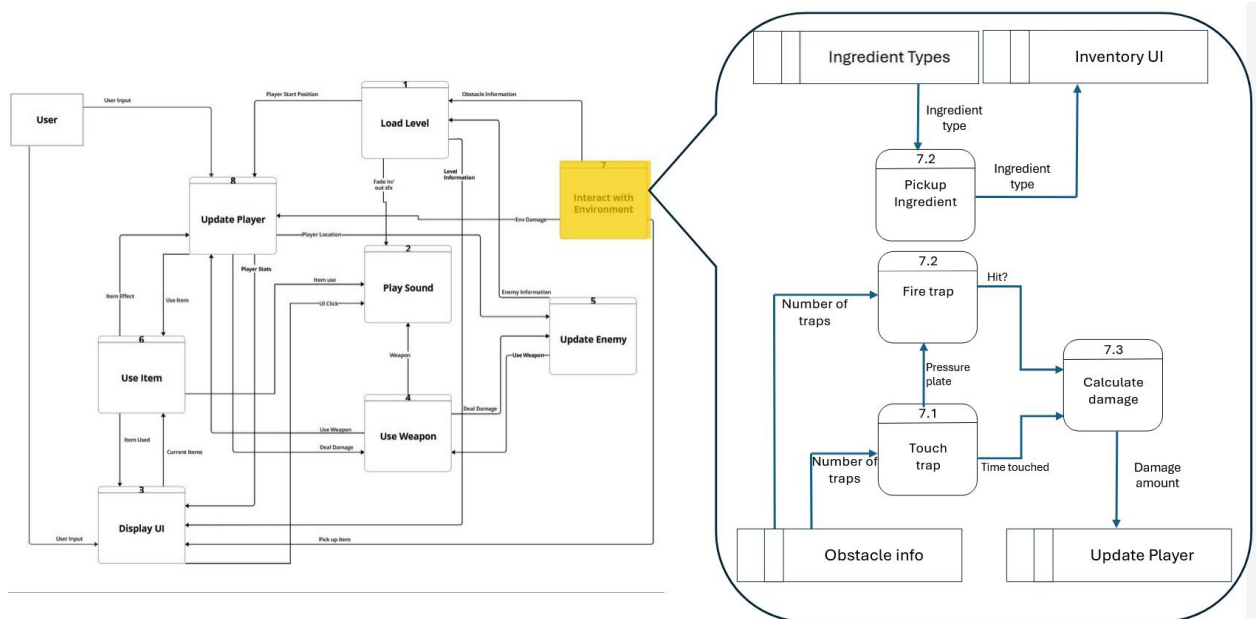


Diagram / Data Flow Diagram



Process Descriptions

Trigger trap:

While player is in room

If player touches spike

Deal damage to player

Else

```

        Do nothing
    Endif

    Else if player steps on pressure plate
        Fire dart
        If dart hits player
            Deal damage to player
        Else
            Do nothing
        Endif
    Endif

    If ingredient is in room
    If Player picks up ingredient
    add to inventory
    Else
    Do nothing
    endif

```

4. Acceptance Tests _____9

For the acceptance test I will test that there is not more than one trap stacked in one place for either trap type.

Another test is to ensure that the dart is not moving faster than the player can move out of the way.

For the spike trap I will ensure that the trap does not cause more damage than there is health.

For ingredients I will make sure that the player cannot pick up the ingredient more than once and that the ingredient will not stay in the room even after it is picked up.

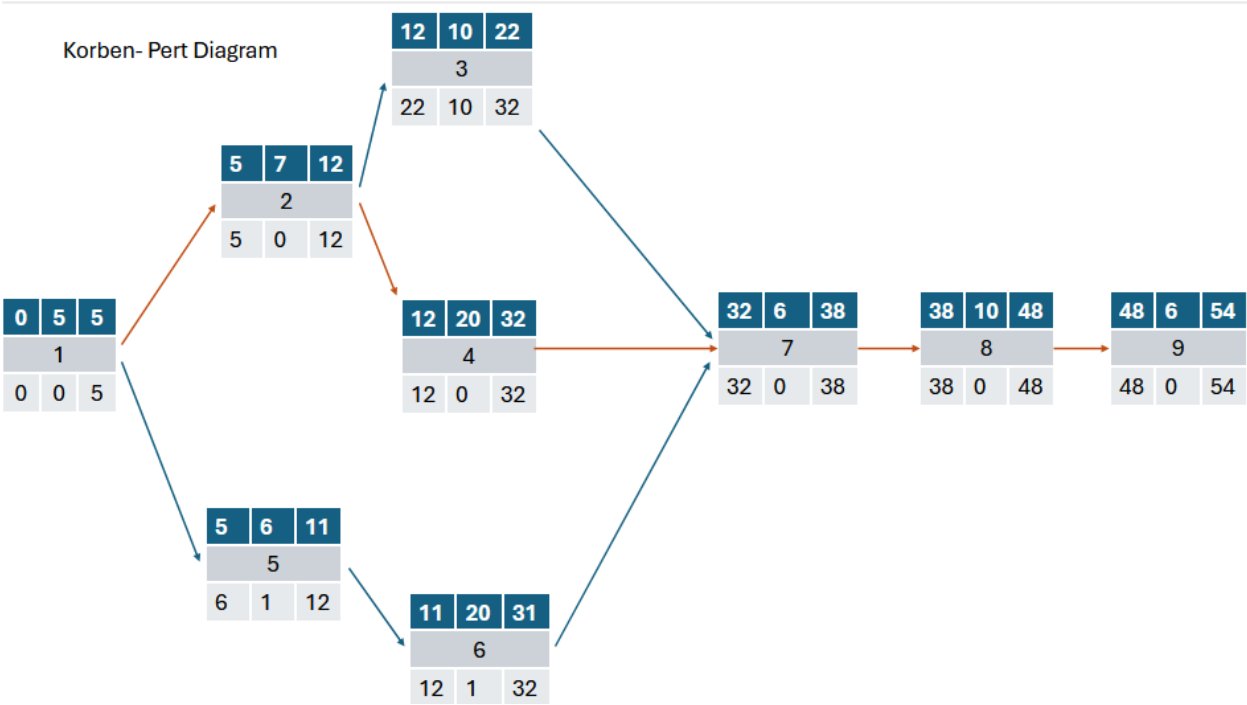
5. Timeline _____/10

Work items

Task	Duration (PWks)	Predecessor Task(s)
1. Collect requirements	5	-
2. Create trap types	7	1
3. Code trap 1	10	2

4. Code trap 2	20	2
5. Create ingredient types	6	1
6. Code ingredients	20	5
7. Testing	6	3,4,6
8. Integrate	10	7
9. Final test	6	8

Pert diagram



Gantt timeline

