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Mark _____/50

[**Instructions:** Remove everything that is not a heading below and fill in with your own diagrams, etc.]

1. Brief introduction __/3

The feature that I am going to be working on is the weapons in the game. I am going to incorporate two main types of weapons, melee and range. I will receive inputs from user and enemy to initiate swing or projectile depending on what weapon used and will output if the collision is true to deal damage.

2. Use case diagram with scenario __14

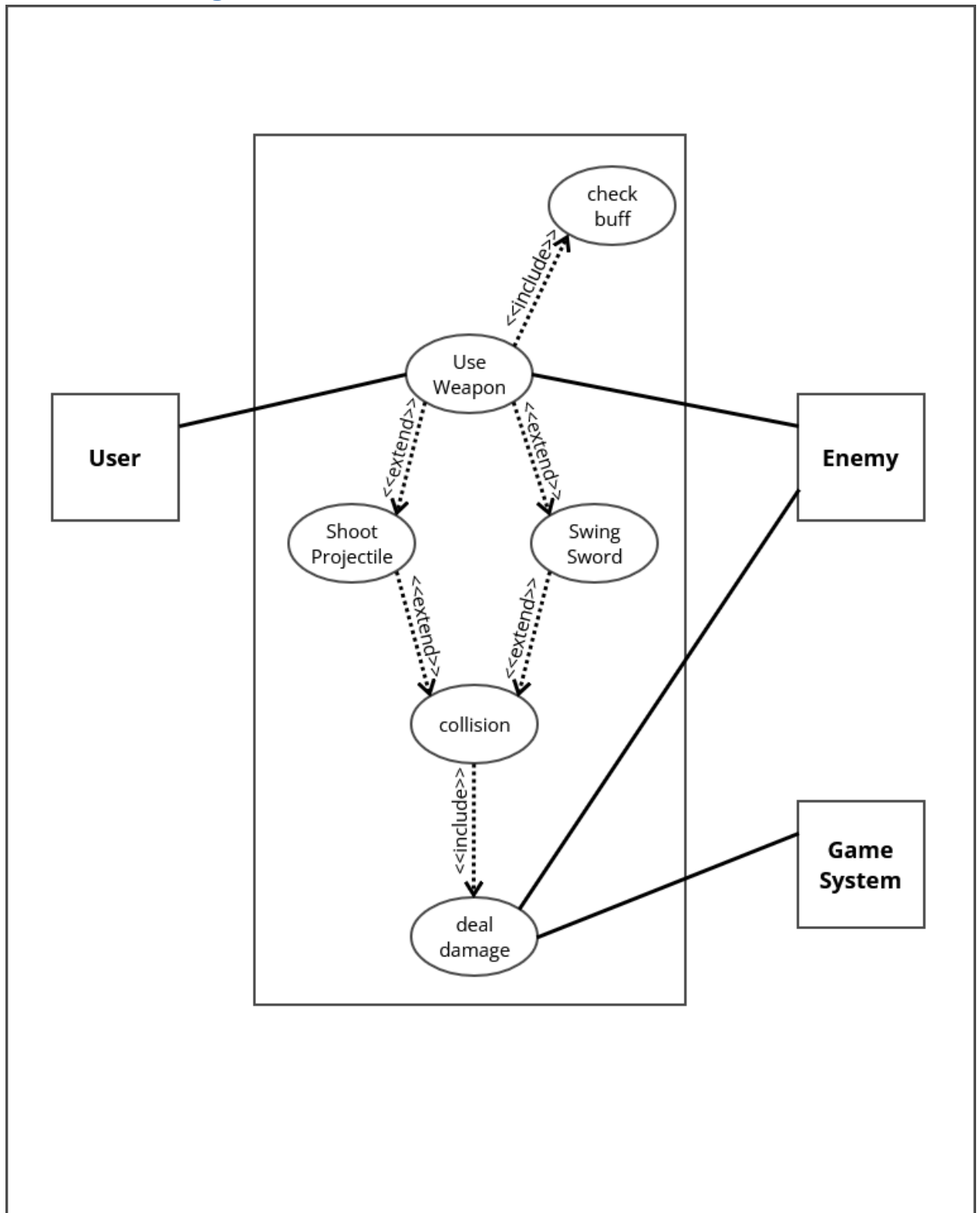
[Use the lecture notes in class.

Ensure you have at least one exception case, and that the <<extend>> matches up with the Exceptions in your scenario, and the Exception step matches your Basic Sequence step.

Also include an <<include>> that is a suitable candidate for dynamic binding]

Example:

Use Case Diagrams



Scenarios

[You will need a scenario for each use case]

Name: Use Weapon

Summary: An entity(player or enemy) uses one of the two types of weapons to try and hit a different entity.

Preconditions: Player has to be initiated with a weapon, level has to be initiated, and enemies have to be initiated

Basic sequence:

Step 1: Entity initiated an attack

Step 2: System checks for any active buffs

Step 3: Swing melee weapon

Step 4: Collides with enemy

Step 5: Deal damage

Exceptions:

Step 3.1: Ranged weapon is used and initiates a projectile

Step 4.1: Misses the enemy and deal damage is void

Step 4.2: Collides with wall and damage is void

Post conditions: Damage only the enemy if hit

Priority: 1*

ID: D01

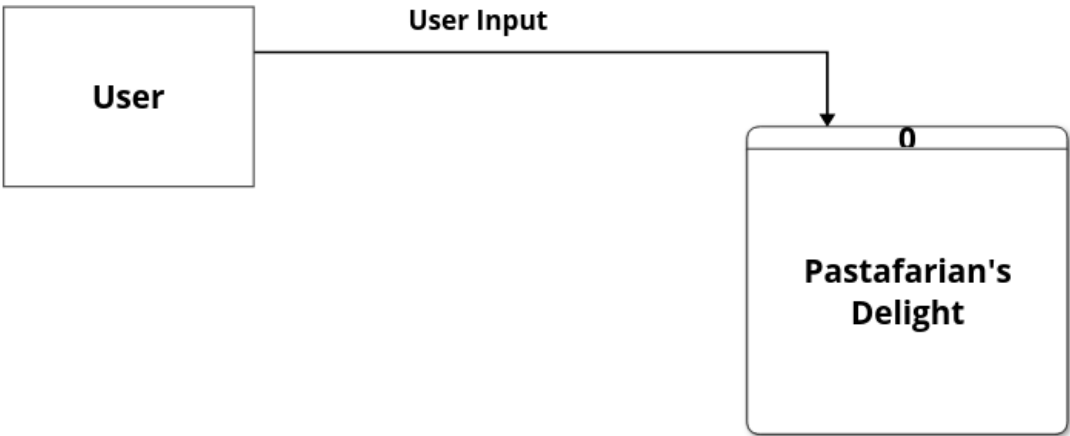
*The priorities are 1 = must have, 2 = essential, 3 = nice to have.

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

[Get the Level 0 from your team. Highlight the path to your feature]

Example:

Context Diagram



Data Flow Diagrams

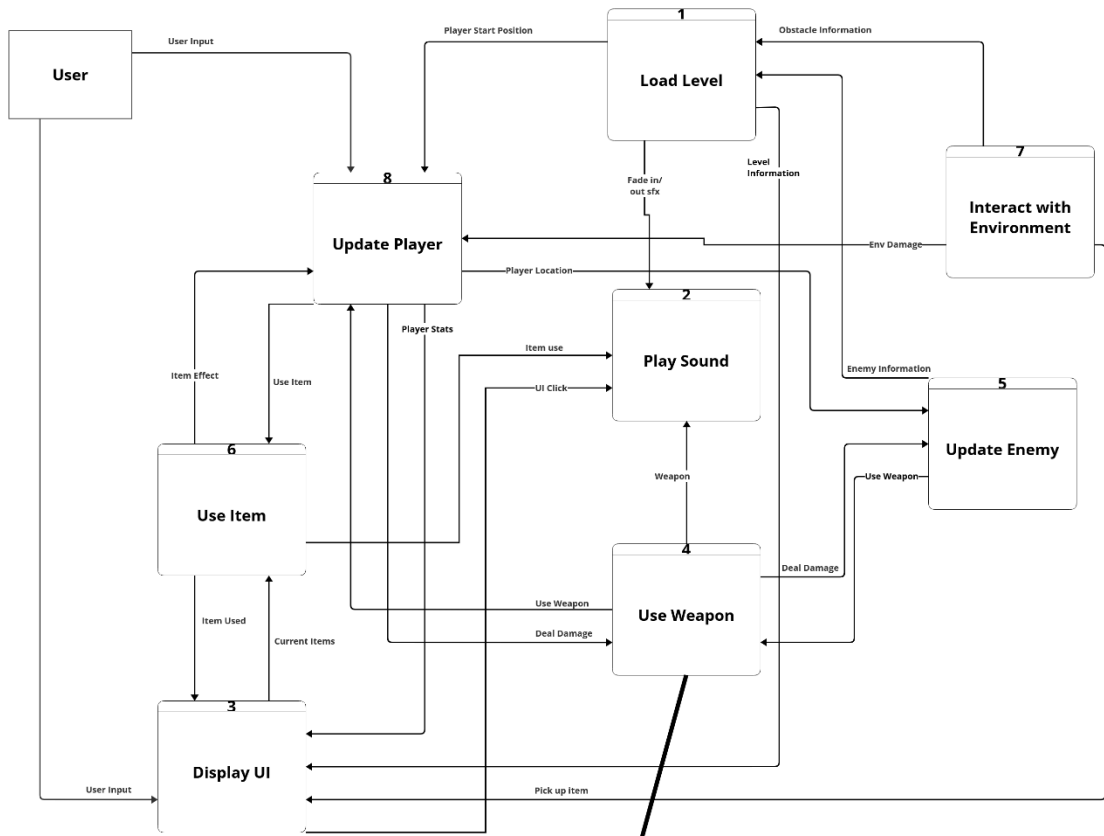
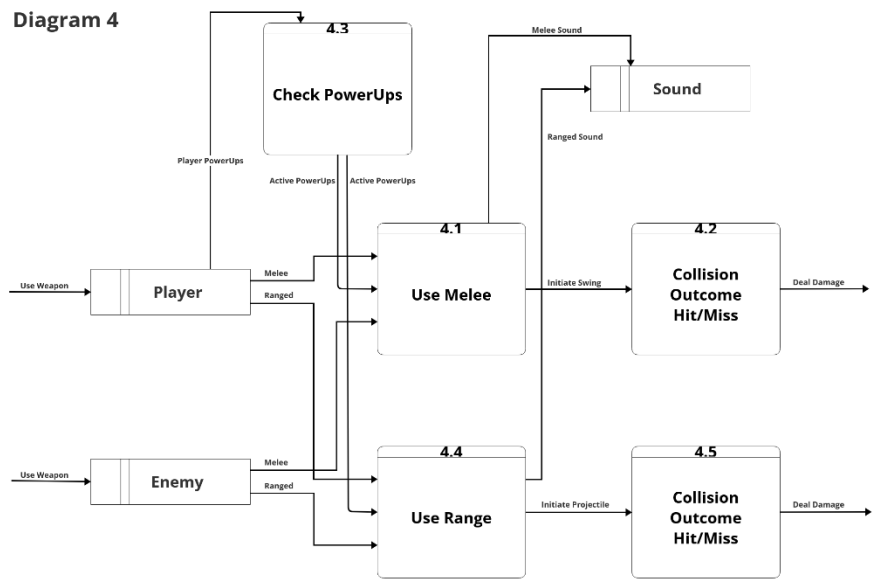


Diagram 4



Process Descriptions

Use Weapon:

```
IF player OR enemy initiates an attack
    If any buffs are active
        Apply buff to attack
    Endif
    If used weapon is melee
        Initiate swing
        Record collision
    Endif
    If used weapon is ranged
        Initiate projectile
        Record collision
    Endif
    If collision is true
        Deal damage
    Endif
Endif
```

4. Acceptance Tests _____9

[Describe the inputs and outputs of the tests you will run. Ensure you cover all the boundary cases.]

Projectile Test

Check what happens when shoot projectile is spammed(simulated by autoclicker)

The game will have the following outcomes:

- Each projectile will follow the correct process
- Game will maintain regular functionality

Health Test

Check what happens when health goes over max.

The game will have the following outcomes

- Health will always go to zero and not below zero
- Damage will never deal more than remaining health.

5. Timeline ____/10

[Figure out the tasks required to complete your feature]

Example:

Work items

Task	Duration (Hours)	Predecessor Task(s)
1. Weapon Class Creation	4	-
2. Melee Weapon Creation	15	1
3. Ranged Weapon Creation	10	1
4. Projectile Characteristics	10	3
5. Melee Swing Creation	12	2
6. PowerUp Checks	6	1
7. Implementation	3	4, 5, 6
8. Testing	6	8

Pert diagram/Gantt Timeline

