- ## Brief introduction __/3
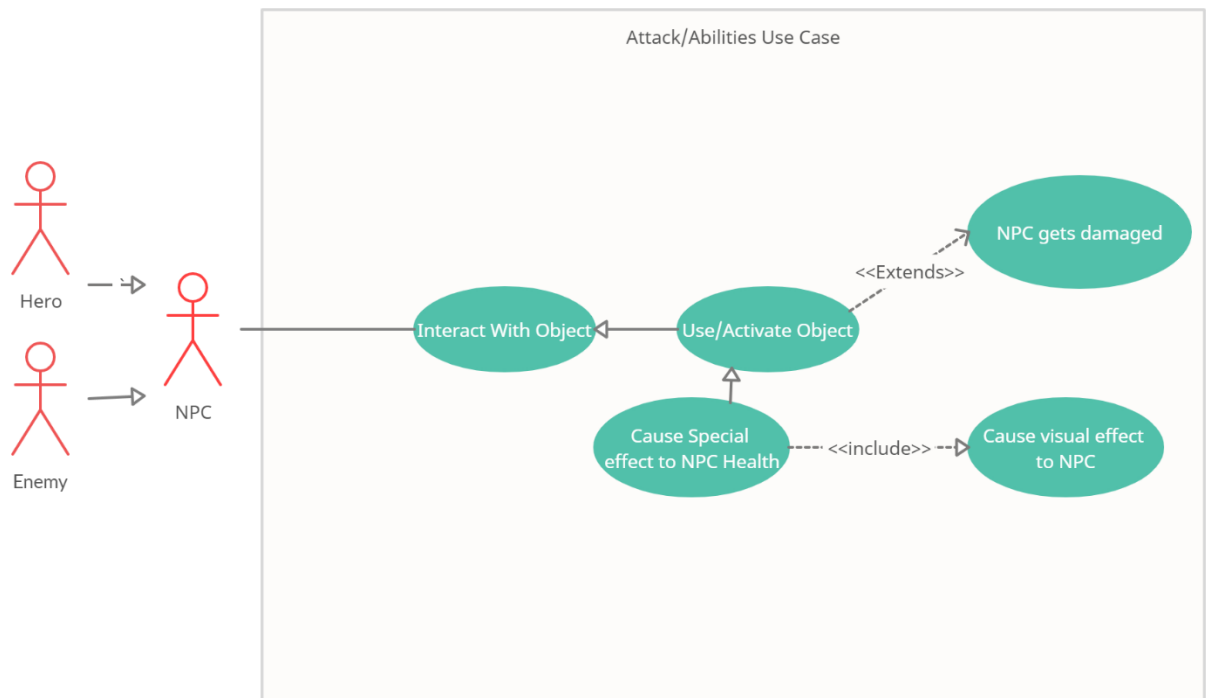
My feature for the 6 people video game called Tile Hero would be attacks and abilities. This feature would include weapon types, magic abilities (as freeze or burning affects), that affects NPCs in game.

- ## Use case diagram with scenario   __14

Use Case Diagrams

Scenarios

Name: Interact with Object

Summary: The NPC will use/activate the object towards another NPC to

Actors: NPC

Preconditions: The game is loaded, NPC is near the object

Basic sequence:

    Step 1: The hero is near an object

    Step 2: The hero inputs the interact button to interact with the object

    Step 3: The object runs Interaction code, which can trigger a sequence of events depending on the type of object.

    Step 4: Object can interact with NPC

Exceptions:

    Step :

Post conditions: The object is either running the interaction code … placed into inventory if there is space, or left on the game floor if there is no inventory space

Priority: 1

ID: M01

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

- ## Data Flow diagram(s) from Level 0 to process description for your feature _____14
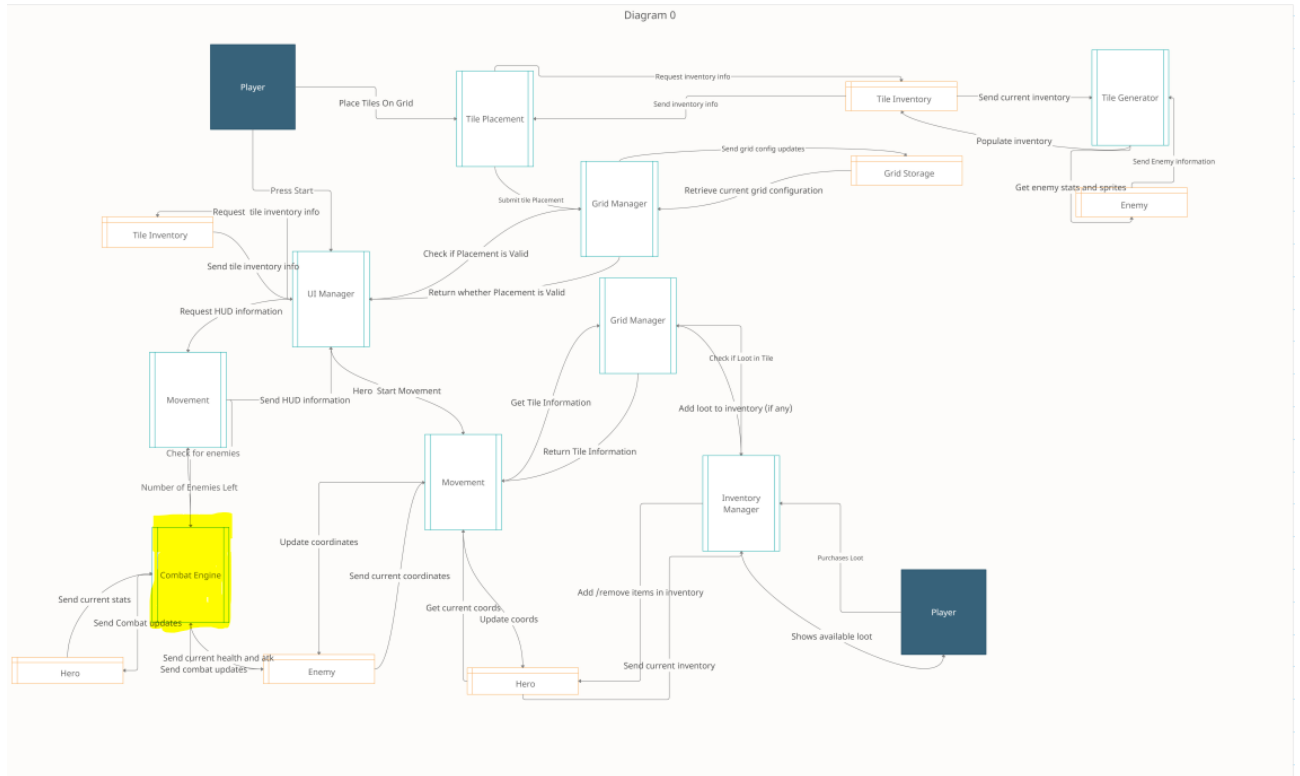
Data Flow Diagrams

Diagram 1

UI Manager — Notify That Hero Has Died → **Calculate Stats Following Combat**

Calculate Stats Following Combat — Provide Enemies with 0 HP → **Remove Enemies**

Provide Stats + Target → **Calculate Stats Following Combat**

Update Stats → **Calculate Stats Following Combat**

Provide Stats + Target → **Calculate Stats Following Combat**

Update Stats

Enemy

Hero

Notify that Target is in range → **Check if target is in range**

Provide Coordinates

Provide Coordinates

Remove Enemy

Send Ability Effect → **Activate Abilities**

Check if target is in range

Send Target Coordinates / Notify that target has been reached → **Movement**

Provide Target

Provide Stats

Provide Stats

Determine hero attack order

Activate Abilities

Press ability button → **Player**

Player

Diagram 2

x.1 Interact With Object — Notify the type of object → **x.2 Activate/Use Object**

x.2 Activate/Use Object — Provide the type of object being used → **x.3 Cause special affect to NPC's health**

ID Object (weapon) Type Storage — Provides all object types → **x.1 Interact With Object**

Provide update to stats → **ID Enemy**

Provide update to stats → **ID Hero**

Provide the type of object being used → **x.4 Visual affect to NPC**

Provide a visual affect to NPC → **ID Enemy**

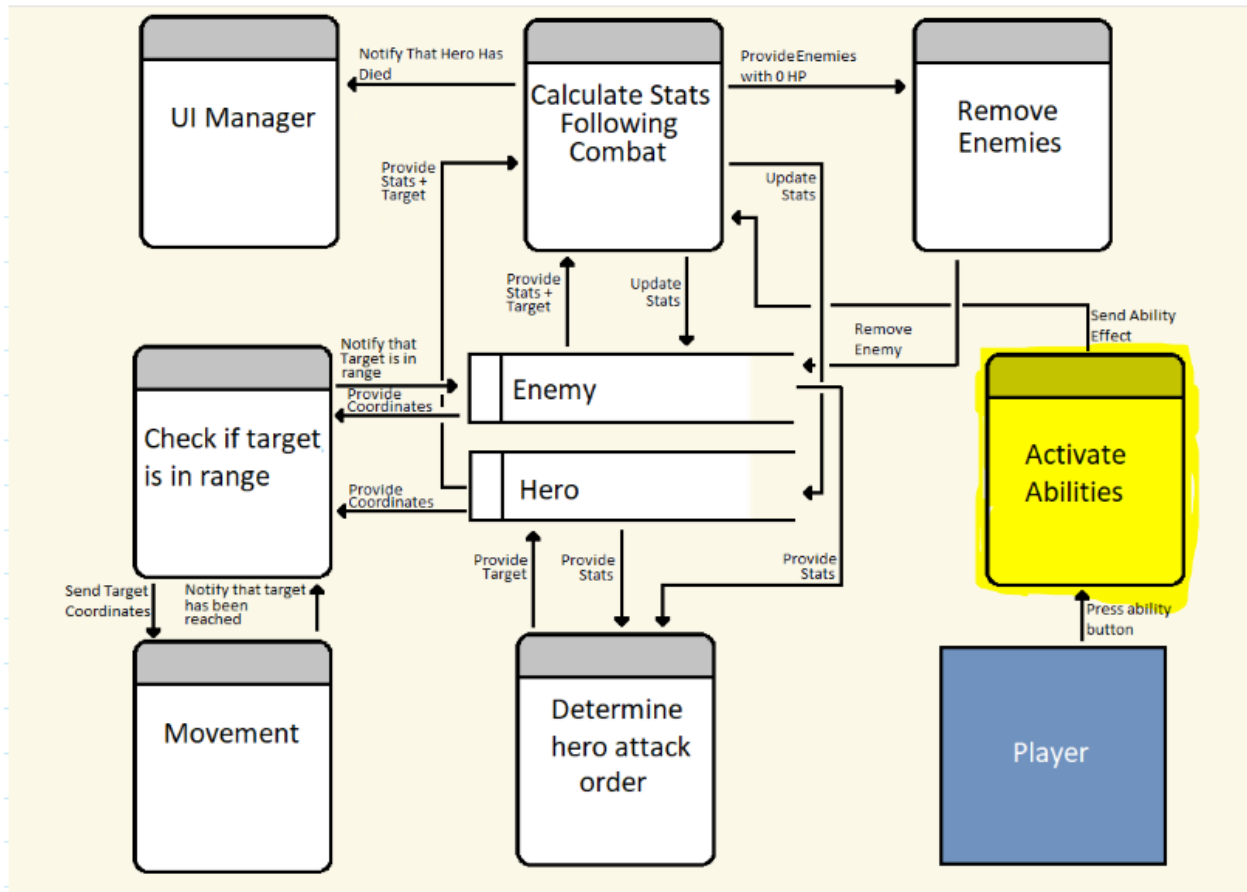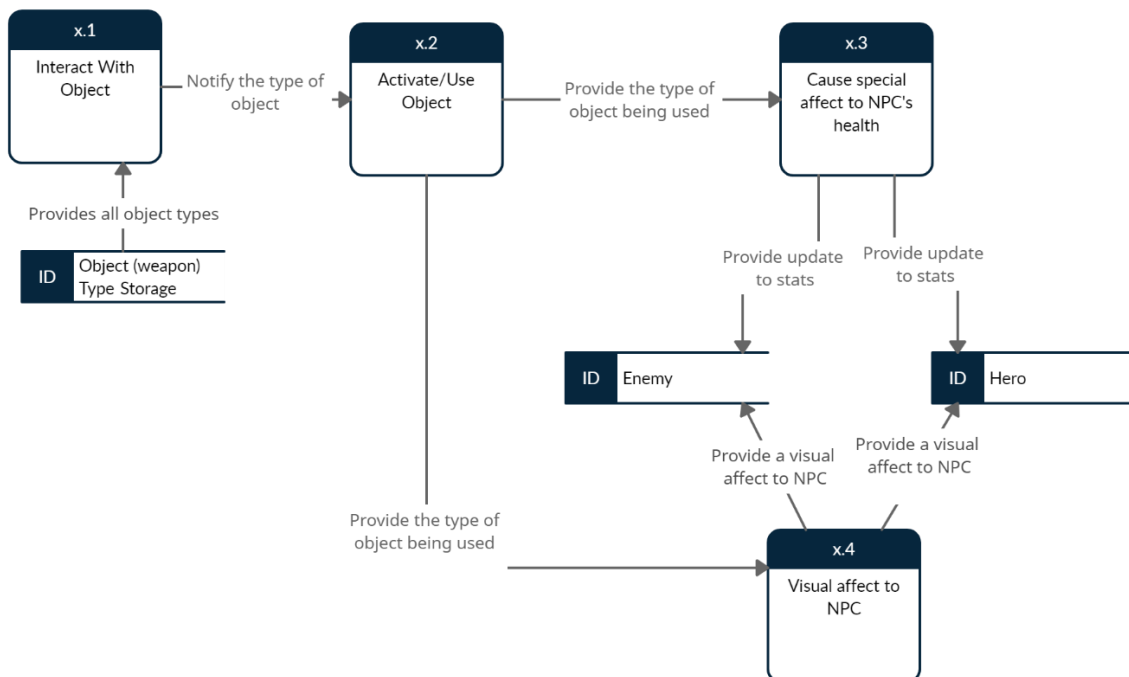Provide a visual affect to NPC → **ID Hero**

x.4 Visual affect to NPC

Process Descriptions

NPC is in proximity to attack other NPC.

Before the first attack is started, process x.1 first checks the type of object being used from Object Type Storage. After Object was interacted with to know the type, x.1 notifies x.2 to activate the object then provide x.3 / x.4 or both depending on the object.

Process x.3, depending on the type of NPC (hero or enemy), will cause special affect to NPC health and provide updates to stats(health).

Process x.4, depending on the type of object being used, will create a visual effect to the NPC which then x.4 will provide an update to the NPC's appearance to either the NPC or its health bar.

- Acceptance Tests _____9

Fight within tile with many enemies around hero, have hero use all abilities on the enemies

This test will be having an indestructible hero, a hero that has all abilities available to him and is placed on a tile with very many enemies. Hero will then activate each of his abilities to kill all of the enemies. The test will check the way the enemies died compared to the type of ability used on it.
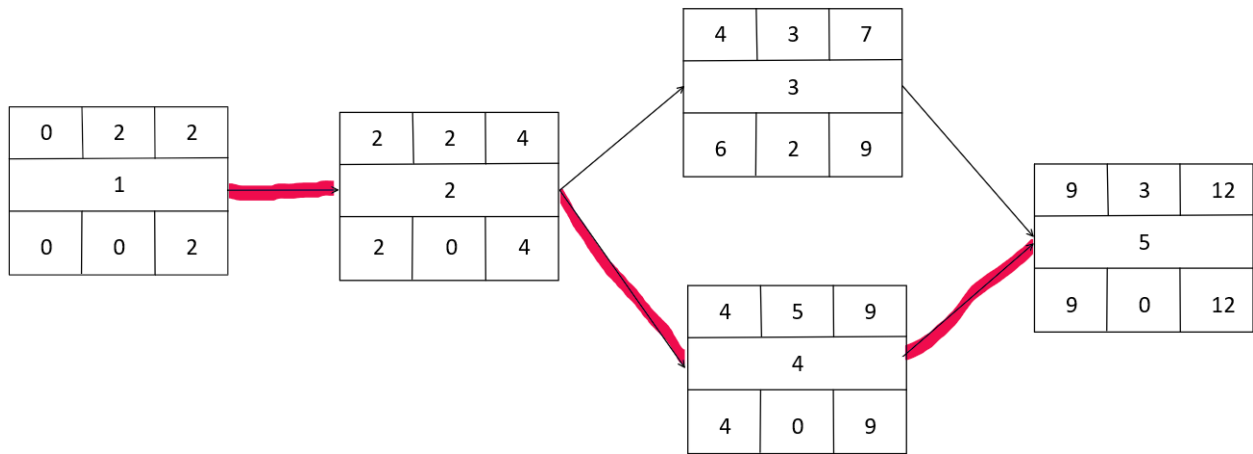
Output:

- number of enemies remaining
- Number of enemies that existed and died; will check if the enemy death matched the ability.

- Timeline _____/10

Work items

Task	Duration (PWKs)	Predecessor Task(s)
1. Create an Abilities Class	2	-
2. Create Object List	2	1
3. Special Ability Affect Health	3	1,2
4. Visual affect to NPC	5	1,2
5. Testing	3	3,4

Pert diagram

0	2	2
1		
0	0	2

2	2	4
2		
2	0	4

4	3	7
3		
6	2	9

4	5	9
4		
4	0	9

9	3	12
5		
9	0	12

Gantt timeline

	1	2	3	4	5	6	7	8	9	10	11	12
1	■	■										
2			1	■								
3					2	■	■					
4					2	■	■	■	■			
5										4	■	■

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