

Name: Jake Mitchell

Project: Hacker Defense

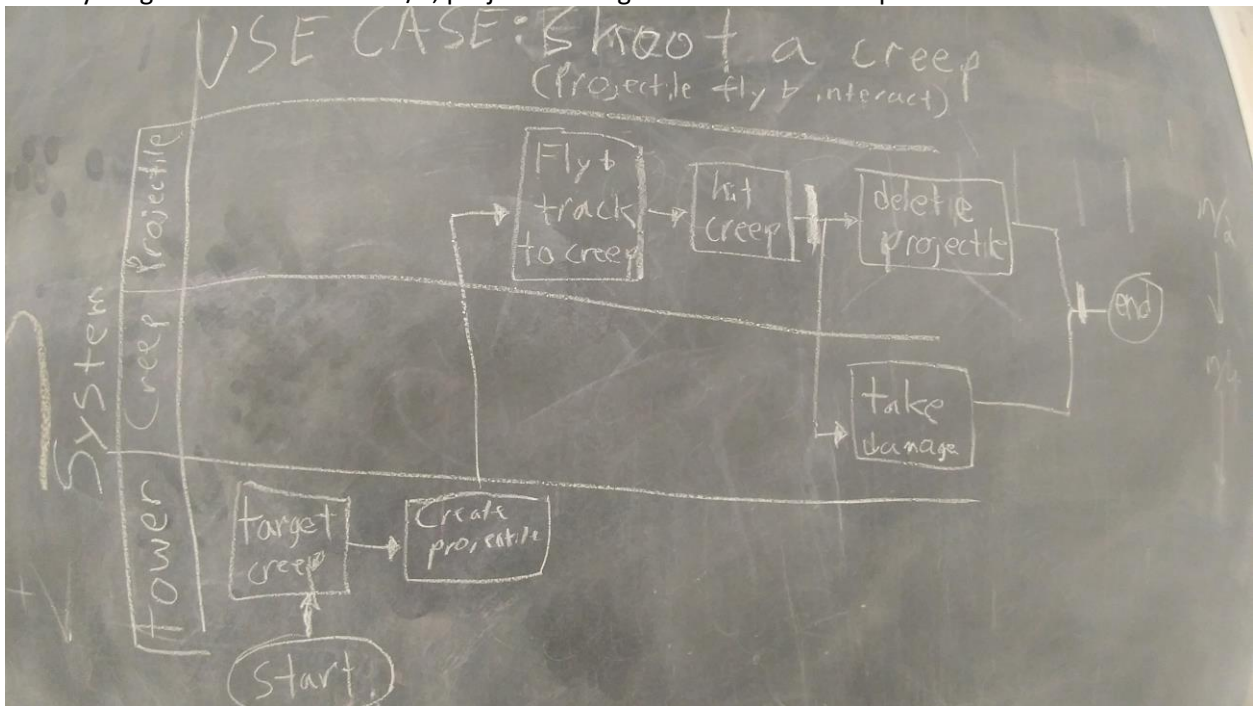
Use Case Documents:

I will be doing the User Requirements 4 and 5. Users must be able to see the projectiles in flight, and creeps must be able to be damaged and killed by projectiles.

<u>Use Case ID:</u>	User-4	
<u>Use Case Name:</u>	Projectiles in flight	
<u>Description:</u>	The user must be able to see the projectiles as they fly towards their target. The projectiles must track towards their targets.	
<u>Actors:</u>	Projectiles, Creep	
<u>Pre-conditions:</u>	A projectile has been fired by a tower at a specific creep.	
<u>Post-conditions:</u>	The projectile's hitbox has interacted with the creep's hitbox	
<u>Frequency of Use:</u>	Every frame for every projectile	
<u>Flow of Events:</u>	<u>Action</u>	<u>Response</u>
	1. Creep moves	Projectile moves towards it
	2.	Projectile angle changes
	3. Projectile hits creep	
<u>Variations:</u>	Creep reaches base before projectile hits	
<u>Notes and Issues:</u>	Needs to run very fast in order to appear smooth	
<u>Developer Notes:</u>	Will likely be interacting with many classes between the draw() function and the projectile update function	

<u>Use Case ID:</u>	User-5	
<u>Use Case Name:</u>	Projectiles interact with creeps	
<u>Description:</u>	Projectiles must interact with their target creeps when they hit, dealing damage.	
<u>Actors:</u>	Projectile, Creep	
<u>Pre-conditions:</u>	Projectile is in flight and has hit the Creep	
<u>Post-conditions:</u>	Creep takes damage and reacts accordingly and projectile is removed	
<u>Frequency of Use:</u>	Up to once per projectile	
<u>Flow of Events:</u>	<u>Actor Action</u>	<u>System Response</u>
	1. Projectile hits target	Projectile runs hit()
	2.	Creep(s) take damage
	3.	Projectile is removed
	4.	Creep dies?
<u>Variations:</u>	Creep reaches base before projectile hits, projectile is removed.	
<u>Notes and Issues:</u>	How to deal with splash damage or other on hit effects other than just damage to target creep	
<u>Developer Notes:</u>		

Activity Diagram: Use Case User 4/5, projectile in flight and then hits creep



Sequence Diagram: Use Case User-5, projectile hits creep

