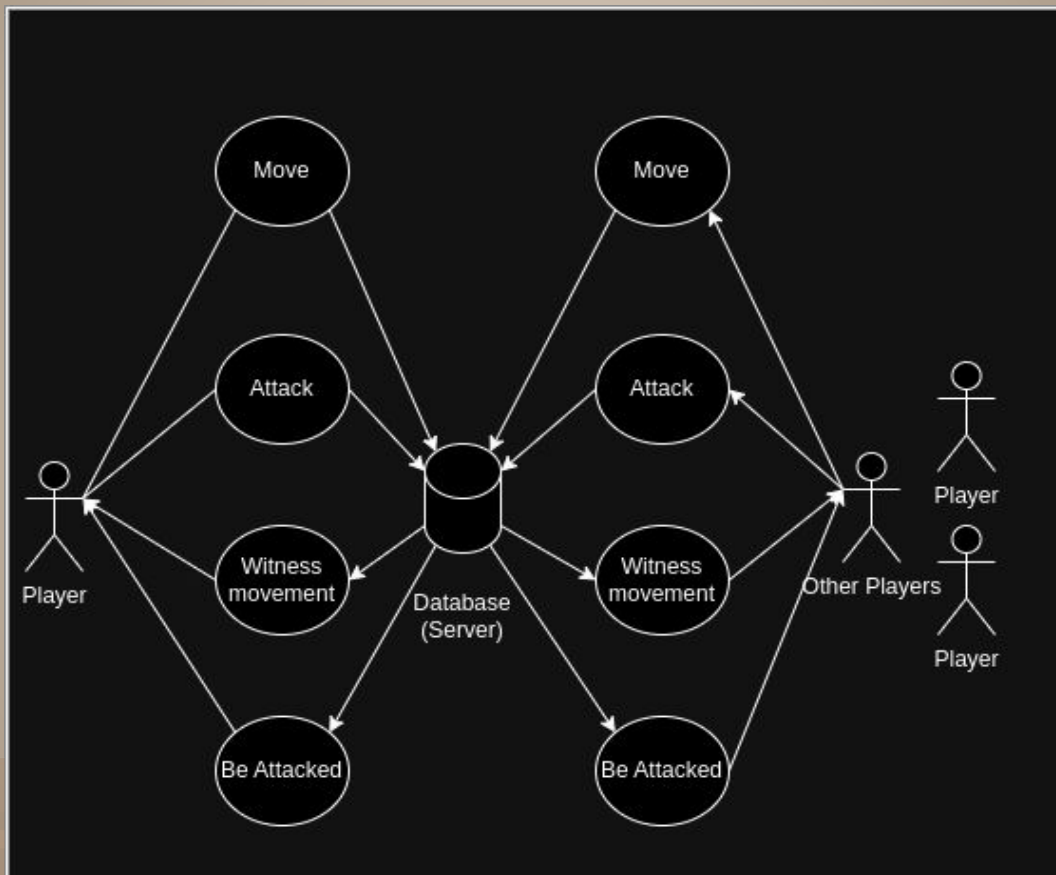# Castles & Creatures

Alex Thomas, Elijah Moore, Garett Sutton, Noah Sickels, Isaiah Denard

Use Case Listing:

1	Join Game: Valid IP	9	Attack: Friendly Fire
2	Join Game: Invalid IP	10	Server: Entity Database
3	Join Game: Invalid Port	11	Server: Collisions & HP
4	Move: Open Movement	12	Server: Adjust Data Request
5	Move: All Directions & Keys	13	Server: Entity Data Request
6	Move: Offscreen Movement	14	Server: Obstacle Generation
7	Attack: Shoot	15	Server: Client Disconnect
8	Attack: Receive	—	—

Use Case Listing:

1	User enters a valid IP address	P	9	A Player collides with their own projectile	P
2	User enters an invalid IP address	P	10	Entities are added and removed from play	P
3	User enters a valid IP address and an invalid Port number	P	11	Entities collide with projectiles	P
4	User presses and holds w, a, s, d, i, j, k, or l	P	12	Server receives Client Request to change entity data	P
5	User presses and holds w, a, s, d, i, j, k, or l, and then switches to another key	P	13	Server receives Client Request for an entity's data	P
6	User moves off screen and then attempts to return	P	14	Game Spawn prompts Obstacle Generation	P
7	A projectile is spawned and travels in the direction of the player	P	15	Client disconnects from Server	P
8	A Player collides with an enemy projectile	P	—	—	

Static Analysis Results:

#	Rule Description	Occurrence
331 S	Literal Value Requires a U Suffix	435
302 S	Comment Possibly Contains Code	51
329 S	Operation not Appropriate for Plain Char	27
41 D	Procedure Called Has no Prototype Declared	20
63 D	No Definition in System for Prototyped Procedure	19
49 S	Logical Conjunctions Need Brackets	13

Dynamic Analysis Results:

Game Server

Class/Filename	# of Lines of Code	% Statement Coverage	Lines of Untested Code
gameserverdialog.cpp	301	88.04%	36
gameserverdialog.h	0	0	0
main.cpp	5	100%	0
mytcpserver.cpp	9	100%	0
mytcpserver.h	0	0	0
Totals	315	88.57%	36

Dynamic Analysis Results:

Game

Class/Filename	# of Lines of Code	% Statement Coverage	Lines of Untested Code
defs.h	0	0	0
enemies.cpp	2	0	2
enemies.h	0	0	0
entityanimation.cpp	45	73.33%	12
entityanimation.h	0	0	0
main.cpp	5	100%	0
mainwindow.cpp	252	98.41%	4
mainwindow.h	0	0	0
player.cpp	67	86.57%	9
player.h	0	0	0
projectile.cpp	55	58%	23
projectile.h	0	0	0
sidescrollentity.cpp	194	94.85%	10
sidescrollentity.h	0	0	0
sidescrollscene.cpp	2	0	2
sidescrollscene.h	0	0	0
Totals	622	90.03%	62