SWAT-Kats

Muddy Roads

A Greenfoot Game

Amit Pandey – 011424231
Anudeep Rentala – 011417666
Navneet Jain – 011419291
Shafi Dayatar – 011445434
Swathi Koduri – 011440364

MUDDY ROADS!

There once was a city that had no roads.
There was a heavy rainfall,the ground became very muddy and cars got stuck in it.
The mayor decided that some of the roads must be paved, but with minimum cost.

Play!

Demo!

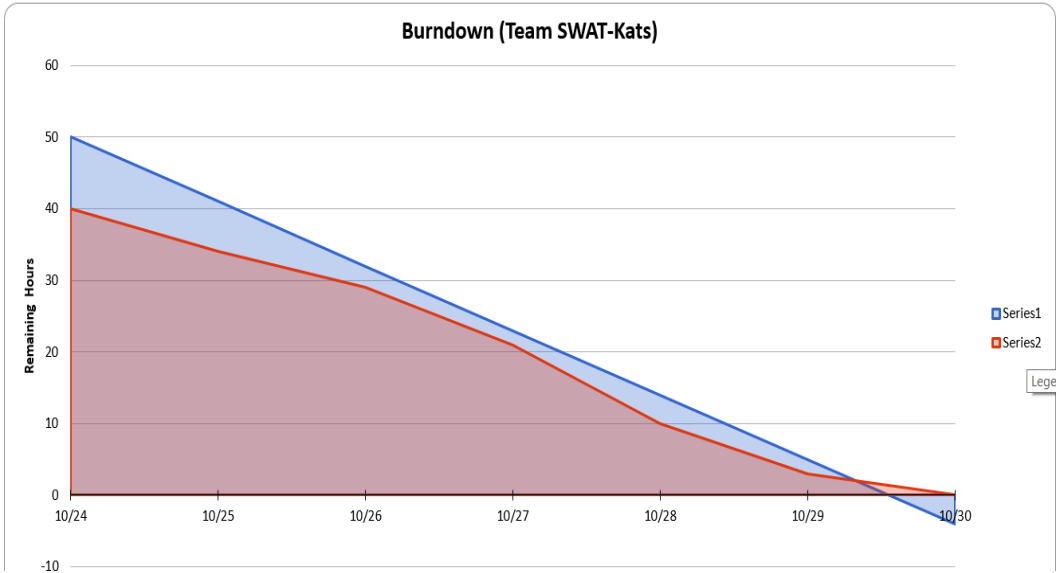
Help!

Created and Developed by SWAT-Kats

SWAT-Kats Sprint 1 Task Sheet and Burndown Chart

Backlog Item	Task	Task Owner	Initial Estimate (Total Sprint Hours = 10*5)	(10 hrs / week) D1 10/24	D2 10/25	D3 10/26	D4 10/27	D5 10/28	D6 10/29	D7 10/30	
				50	41	32	23	14	5	-4	Ideal Burndown
			50	40	34	29	21	10	3	0	Remaining Hrs (Total)
Enable all users to play level 1 of muddy road game	Creating start and help button	Navneet	10	10	10	10	6	2	0	0	
	Designing home screen layout	Swathi	5	5	5	3	2	1	0	0	
	Design level screen layout	Swathi	5	5	4	3	2	2	1	0	
	Creating replay and next button with levelchanger screen	Amit	10	10	9	7	6	5	2	0	
	Implement algorithm to calculate shortes path	Anudeep	10	10	6	6	5	0	0	0	
	Creating path between houses	Shafi	10	10	9	7	5	3	0	0	

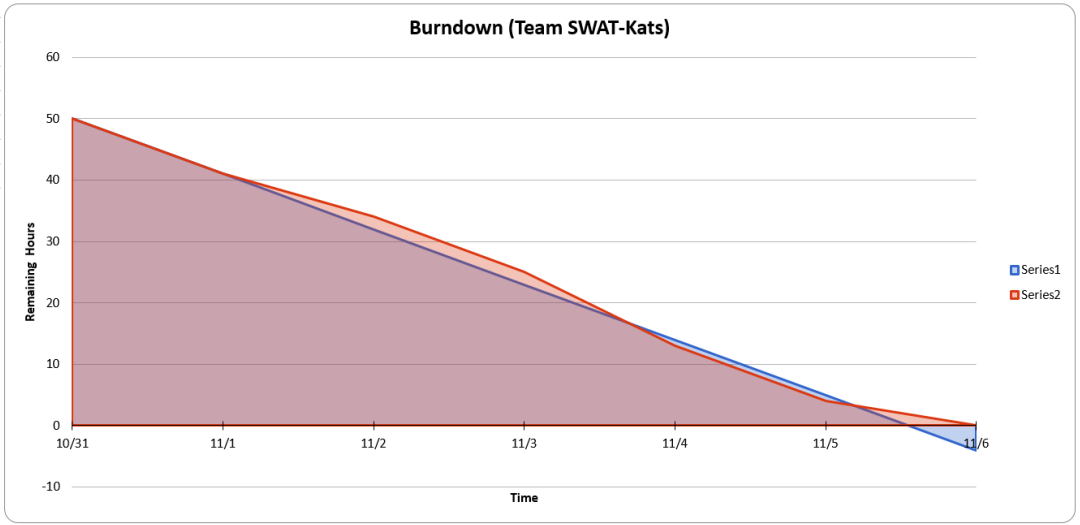
Team:	
Amit	10 hours / Week
Anudeep	10 hours / Week
Navneet	10 hours / Week
Shafi	10 hours / Week
Swathi	10 hours / Week
Total Available Hours During Sprint:	**50**



SWAT-Kats Sprint 2 Task Sheet and Burndown Chart

				(10 hrs / week)							
Backlog Item	Task	Task Owner	Initial Estimate (Total Sprint Hours = 10*5)	D1 10/31	D2 11/1	D3 11/2	D4 11/3	D5 11/4	D6 11/5	D7 11/6	
				50	41	32	23	14	5	-4	Ideal Burndown
			50	50	41	34	25	13	4	0	Remaining Hrs (Total)
Enable users to play different level of muddy road ga	Integration of Help Voice in the Help menu	Navneet	10	10	7	7	7	4	2	0	
	Dsigning Game screen along with the houses	Swathi	10	10	8	8	4	3	1	0	
	Adding score display in levelSelector and EndGameScreen	Amit	10	10	8	6	4	2	0	0	
	Integrating algorithm with world objects	Anudeep	10	10	10	5	4	1	0	0	
	Integration of path class along with the algorithm	Shafi	10	10	8	8	6	3	1	0	

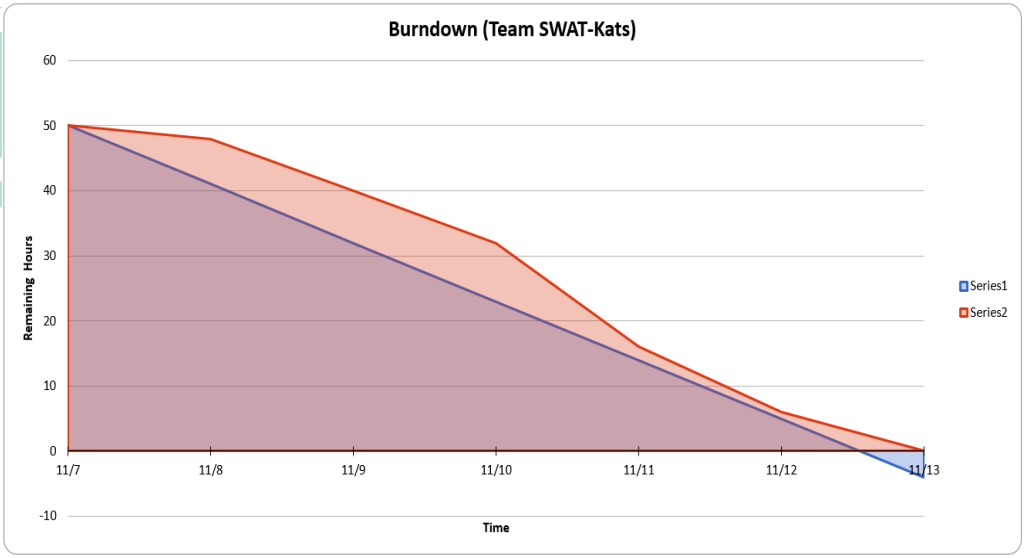
Team:	
Amit	10 hours / Week
Anudeep	10 hours / Week
Navneet	10 hours / Week
Shafi	10 hours / Week
Swathi	10 hours / Week
Total Available Hours During Sprint:	**50**



SWAT-Kats Sprint 3 Task Sheet and Burndown Chart

Backlog Item	Task	Task Owner	Initial Estimate (Total Sprint Hours = 10*5)	(10 hrs / week) D1 11/14	D2 11/15	D3 11/16	D4 11/17	D5 11/18	D6 11/19	D7 11/20	
				50	41	32	23	14	5	-4	Ideal Burndown
			50	50	45	35	23	16	4	0	Remaining Hrs (Total)
Creation of UI for the game and integration for the client server model	Implementation of State machine pattern for the implementation	Navneet	10	10	10	10	10	6	2	0	
	UI Design for The Muddy Road game.	Swathi	10	10	10	4	4	4	1	0	
	Implementation of the client interaction with server module	Amit	10	10	8	5	3	3	0	0	
	Implement design patterns for core computation of shortest path	Anudeep	10	10	9	8	1	1	0	0	
	Modification of the game level to increase the complexity of the	Shafi	10	10	8	8	5	2	1	0	

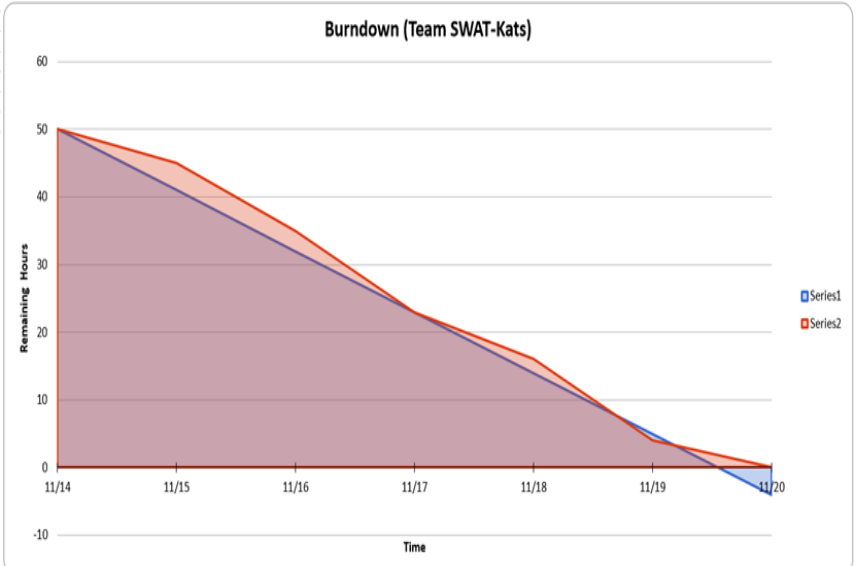
Team:	
Amit	10 hours / Week
Anudeep	10 hours / Week
Navneet	10 hours / Week
Shafi	10 hours / Week
Swathi	10 hours / Week
Total Available Hours During Sprint:	**50**



SWAT-Kats Sprint 4 Task Sheet and Burndown Chart

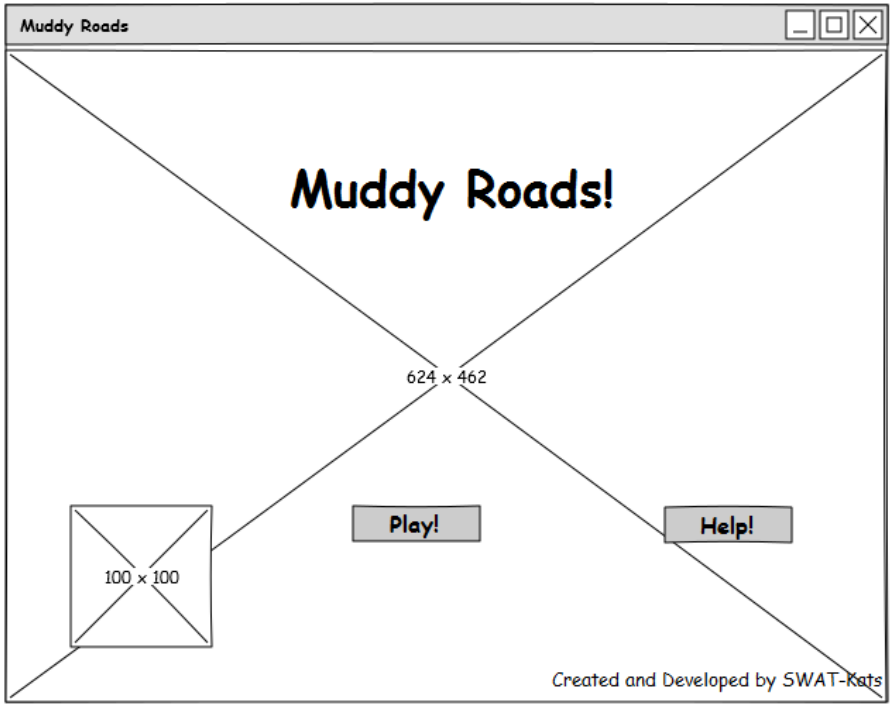
Backlog Item	Task	Task Owner	Initial Estimate (Total Sprint Hours = 10*5)	(10 hrs / week) D1 11/14	D2 11/15	D3 11/16	D4 11/17	D5 11/18	D6 11/19	D7 11/20	
				50	41	32	23	14	5	-4	Ideal Burndown
			50	50	45	35	23	16	4	0	Remaining Hrs (Total)
Creation of UI for the game and integration for the client server model	Implementation of State machine pattern for the implementation	Navneet	10	10	10	10	10	6	2	0	
	UI Design for The Muddy Road game.	Swathi	10	10	10	4	4	4	1	0	
	Implementation of the client interaction with server module	Amit	10	10	8	5	3	3	0	0	
	Implement design patterns for core computation of shortest path	Anudeep	10	10	9	8	1	1	0	0	
	Modification of the game level to increase the complexity of the	Shafi	10	10	8	8	5	2	1	0	

Team:	
Amit	10 hours / Week
Anudeep	10 hours / Week
Navneet	10 hours / Week
Shafi	10 hours / Week
Swathi	10 hours / Week
Total Available Hours During Sprint:	**50**



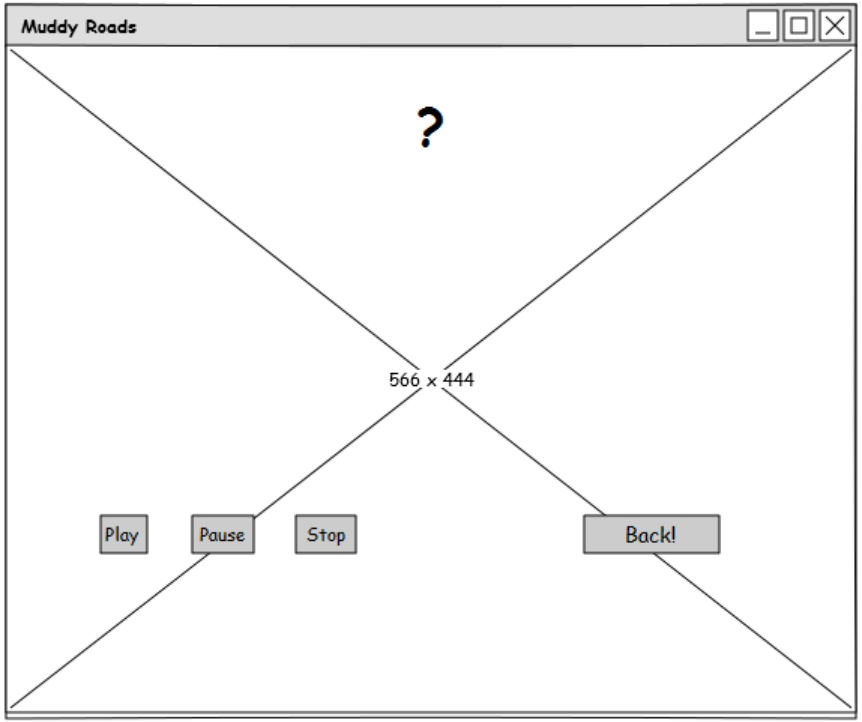
UI Wireframes

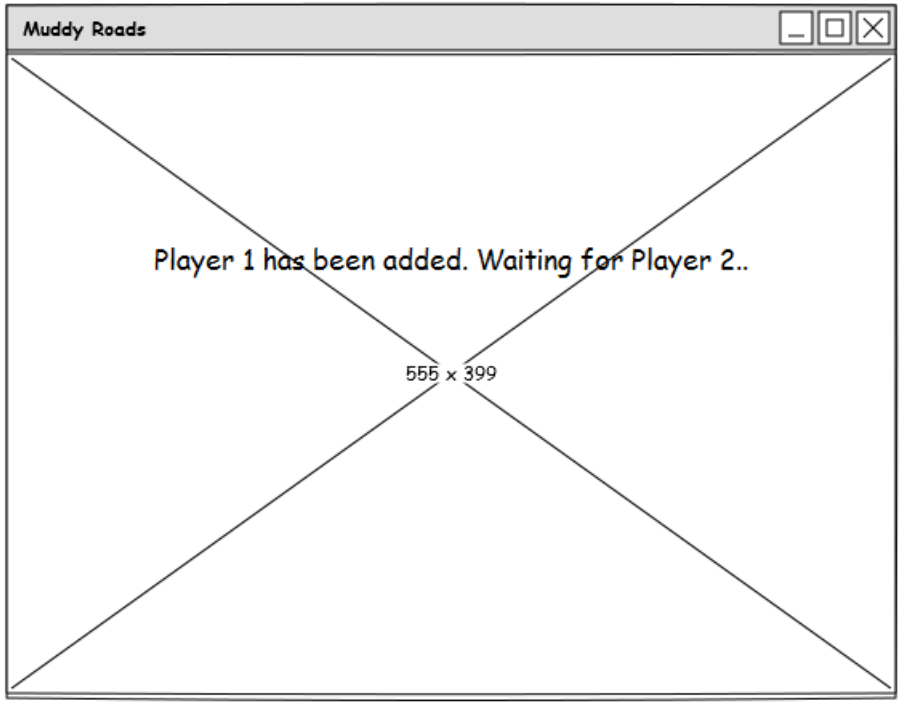
Start Screen



UI Wireframes

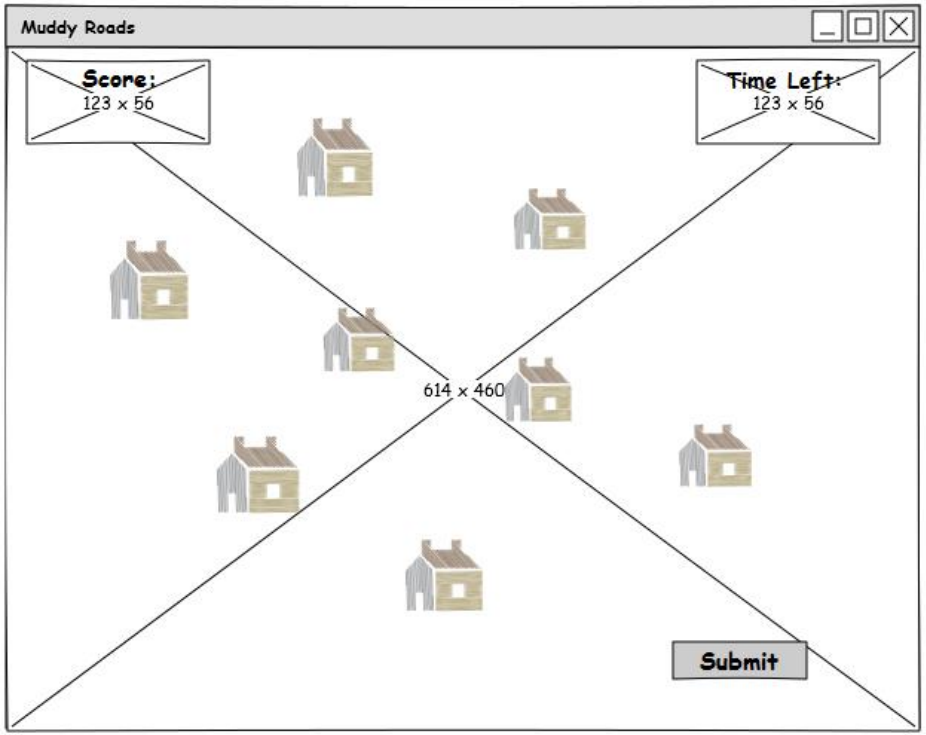
Help and Player Wait Screen





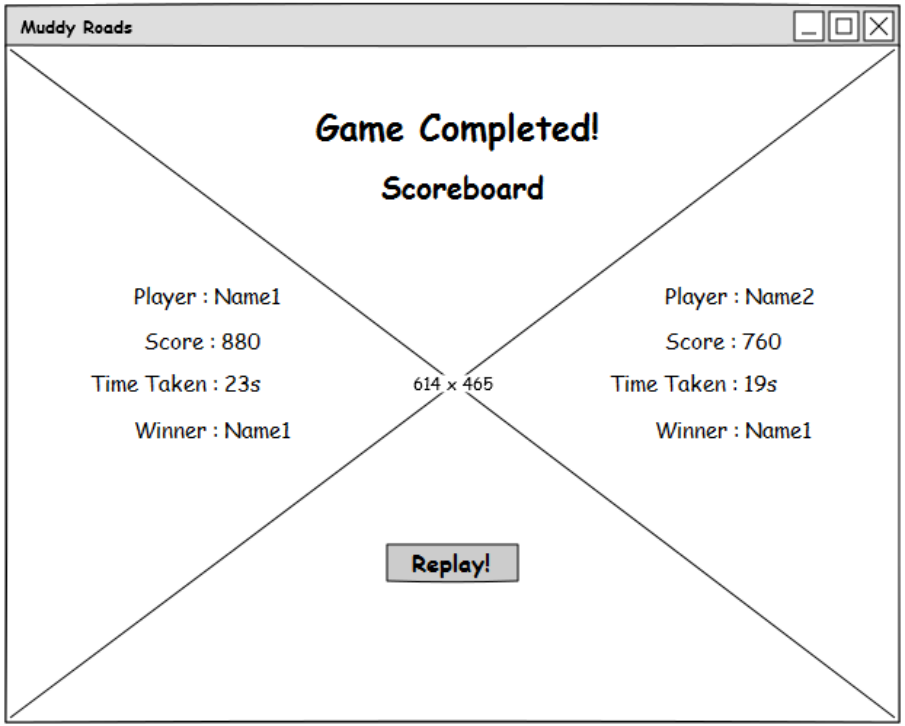
UI Wireframes

Level Screen



UI Wireframes

Game Complete Screen

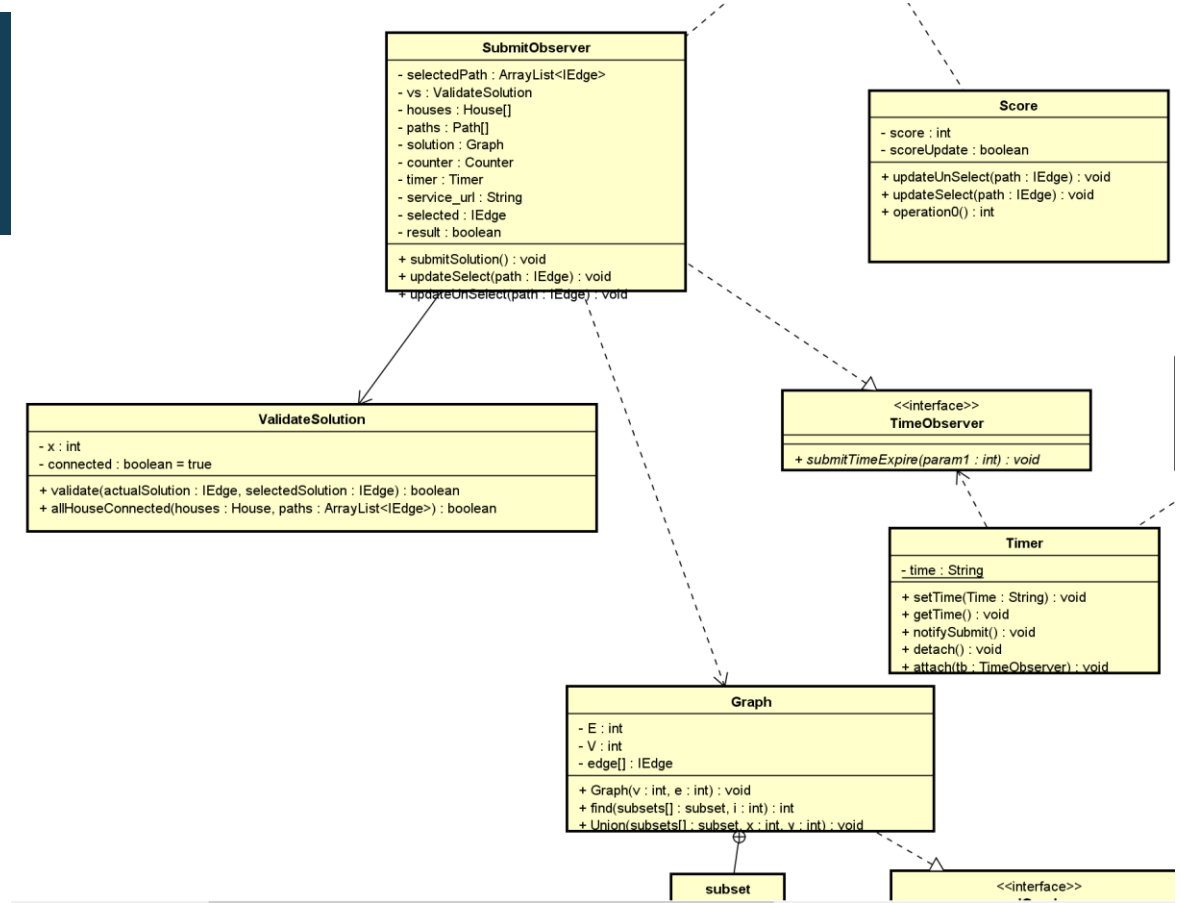


Design Patterns

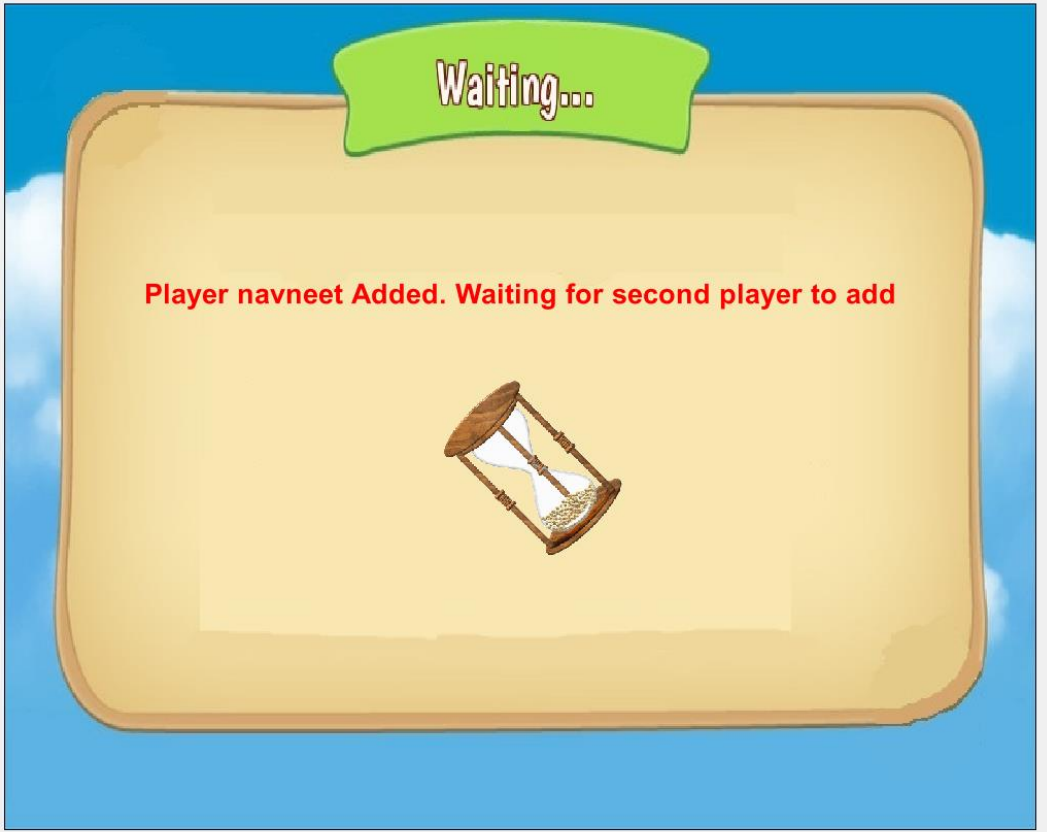
Let’s take a look at the Design Patterns implemented in the game.

Observer Pattern

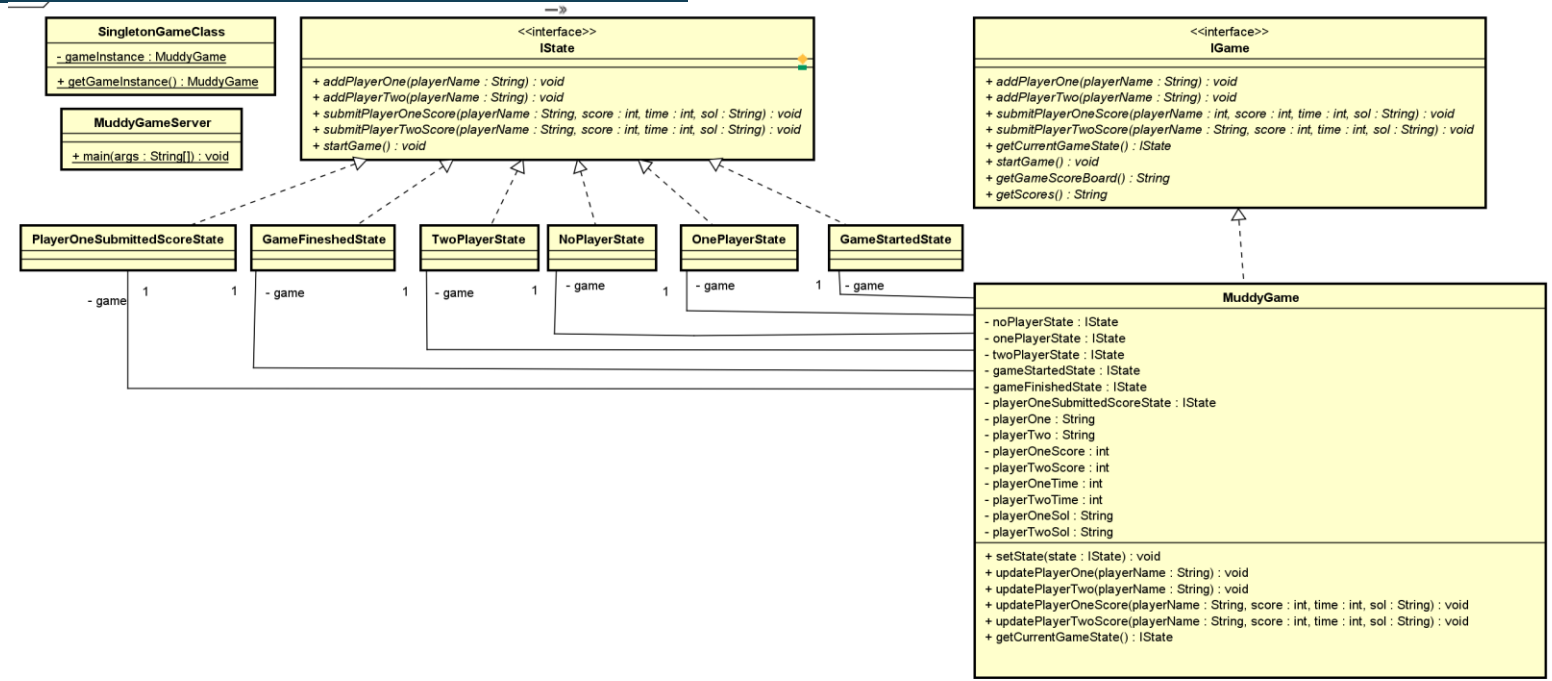
Observer Pattern



State Pattern



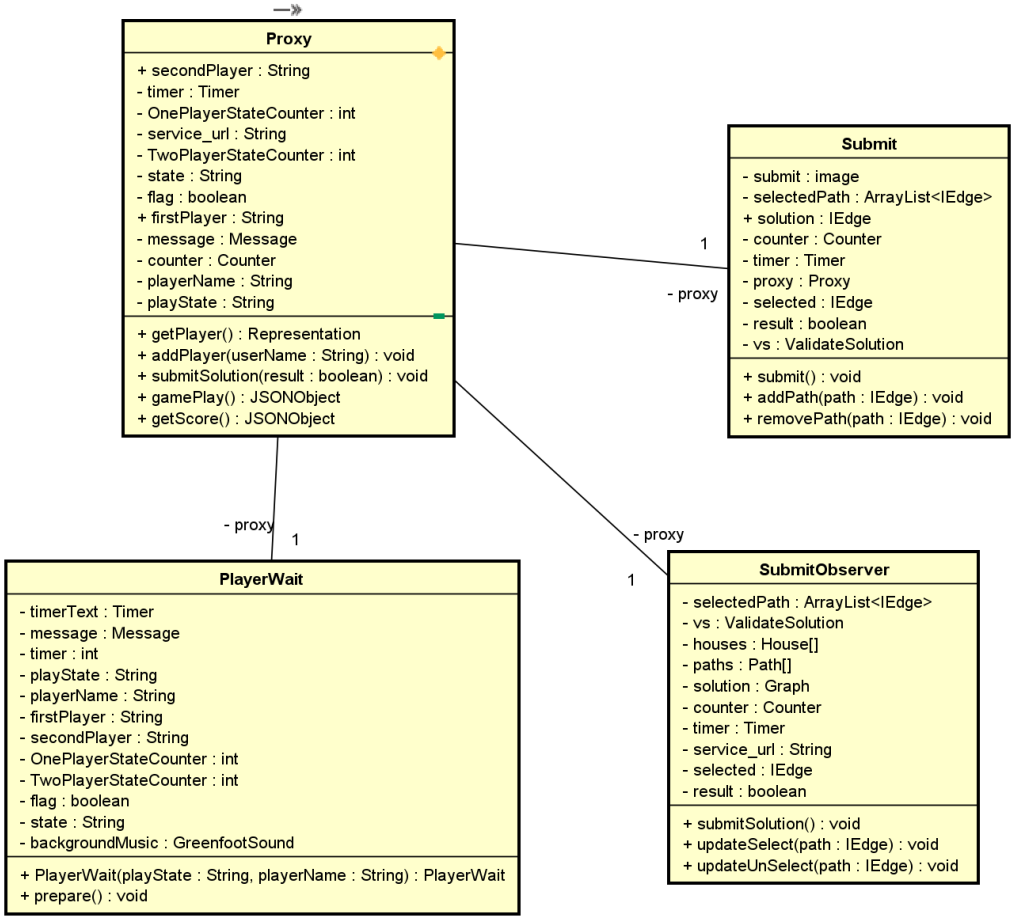
State Pattern



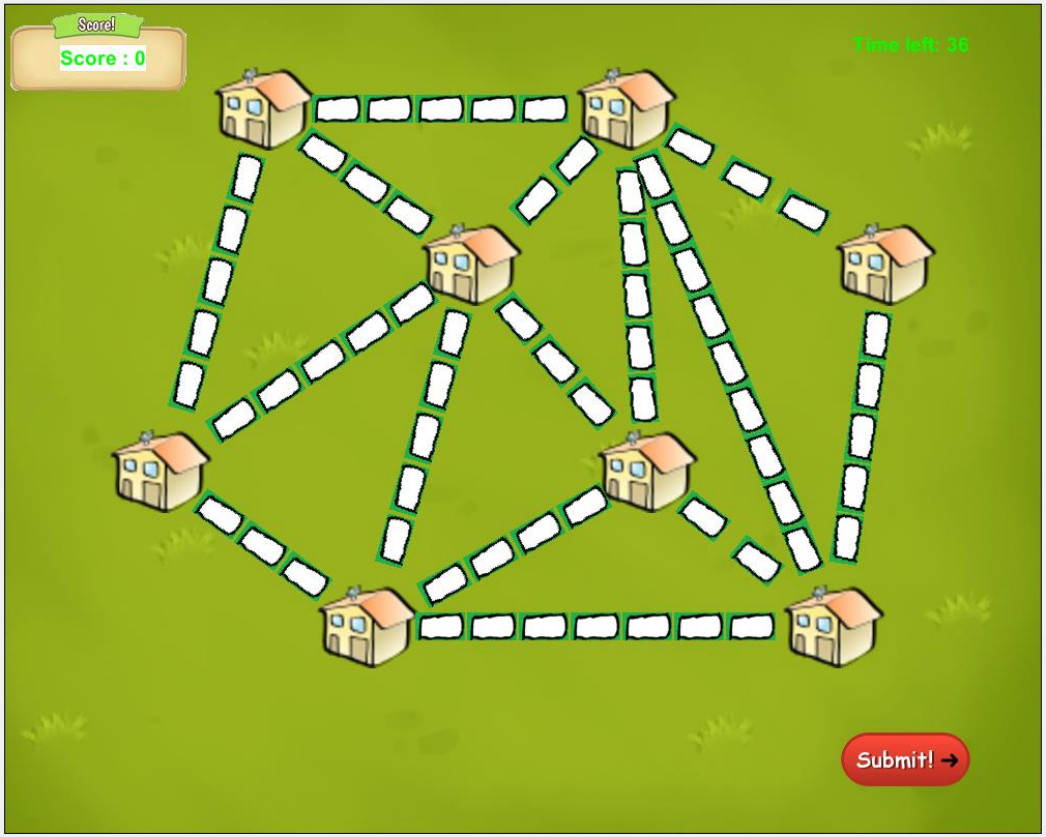
Proxy Pattern

```
http://52.196.47.211:8088 Restlet-Framework/2.3.7 -
[restapi-09686d25-1] 2016-12-04T23:09:42.745236624Z 2016-12-04 23:09:42 50.185.76.92 - - 8089 GET /restlet/getGameState - 200 - 0 0
http://52.196.47.211:8088 Restlet-Framework/2.3.7 -
[restapi-09686d25-1] 2016-12-04T23:09:43.178232445Z entity:[application/json,UTF-8]
[restapi-09686d25-1] 2016-12-04T23:09:43.179308424Z jsonobject.getString(username):navneet
[restapi-09686d25-1] 2016-12-04T23:09:43.179508033Z jsonobject.getString(score):0
[restapi-09686d25-1] 2016-12-04T23:09:43.179683438Z jsonobject.getString(time):27
[restapi-09686d25-1] 2016-12-04T23:09:43.179847781Z jsonobject.getString(isSolutionMST):false
[restapi-09686d25-1] 2016-12-04T23:09:43.180012744Z Int Score:0
[restapi-09686d25-1] 2016-12-04T23:09:43.180167790Z Int Score:27
[restapi-09686d25-1] 2016-12-04T23:09:43.180333062Z isSolutionMST:false
[restapi-09686d25-1] 2016-12-04T23:09:43.180508643Z Game has started, playerOne submitting score
[restapi-09686d25-1] 2016-12-04T23:09:43.180721273Z status:null
[restapi-09686d25-1] 2016-12-04T23:09:43.180993705Z 2016-12-04 23:09:43 50.185.76.92 - - 8089 POST /restlet/submitScore - 200 - - 3
http://52.196.47.211:8088 Restlet-Framework/2.3.7 -
[restapi-09686d25-1] 2016-12-04T23:09:43.563765290Z 2016-12-04 23:09:43 50.185.76.92 - - 8089 GET /restlet/getGameState - 200 - 0 0
http://52.196.47.211:8088 Restlet-Framework/2.3.7 -
[restapi-09686d25-1] 2016-12-04T23:09:43.984658968Z Scores = navneet:0:27-amit:0:0
[restapi-09686d25-1] 2016-12-04T23:09:43.984909728Z Decision = waiting
[restapi-09686d25-1] 2016-12-04T23:09:43.985279374Z 2016-12-04 23:09:43 50.185.76.92 - - 8089 GET /restlet/getScores - 200 - 0 1
http://52.196.47.211:8088 Restlet-Framework/2.3.7 -
```

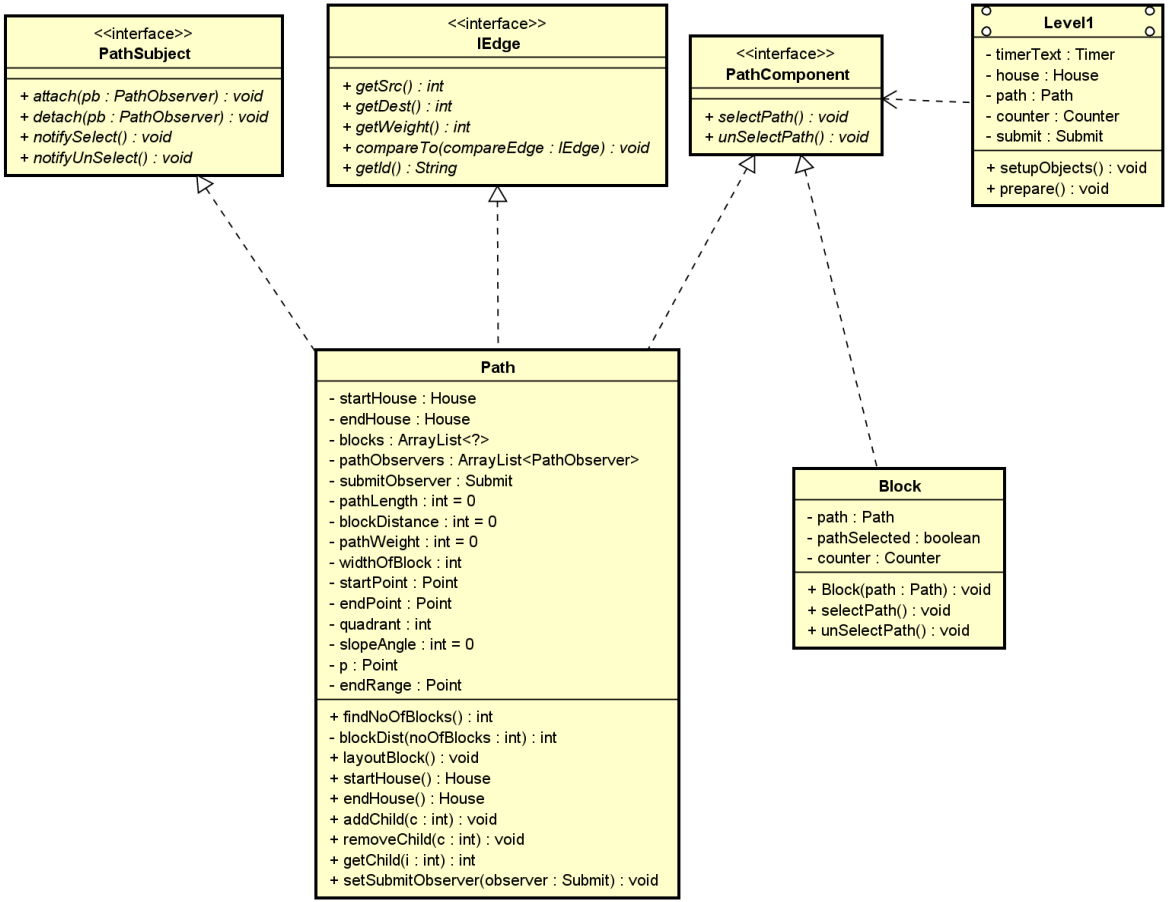
Proxy Pattern



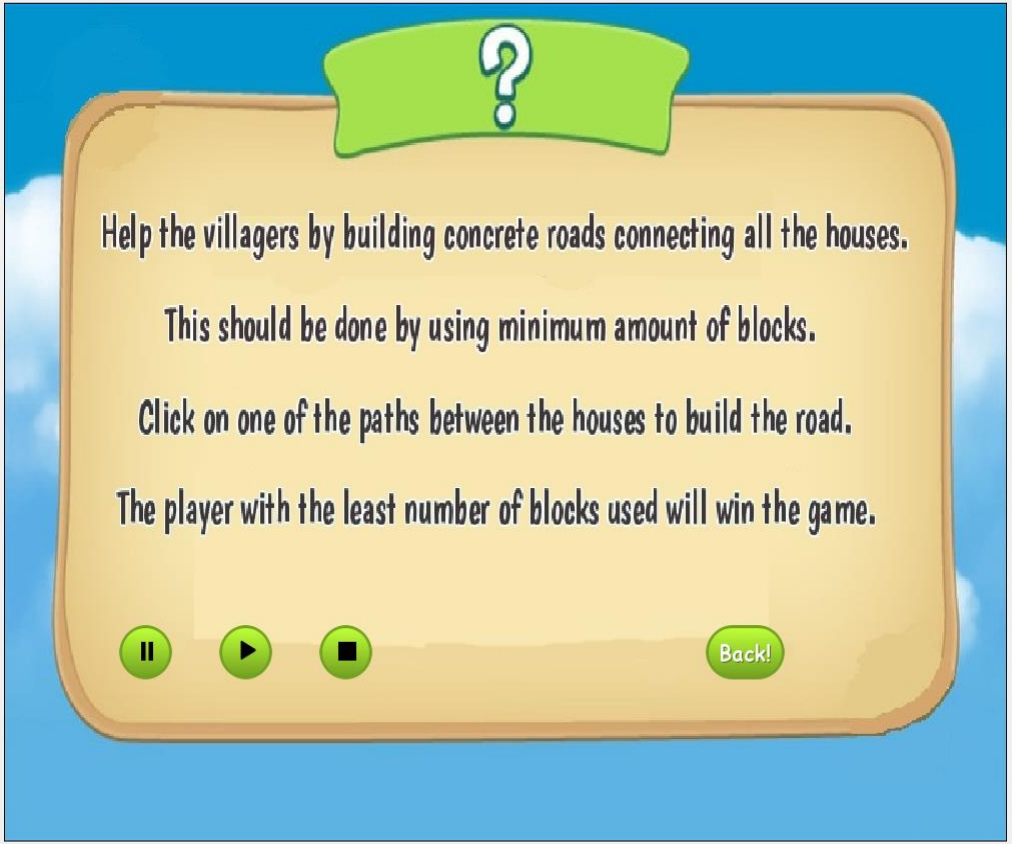
Composite Pattern



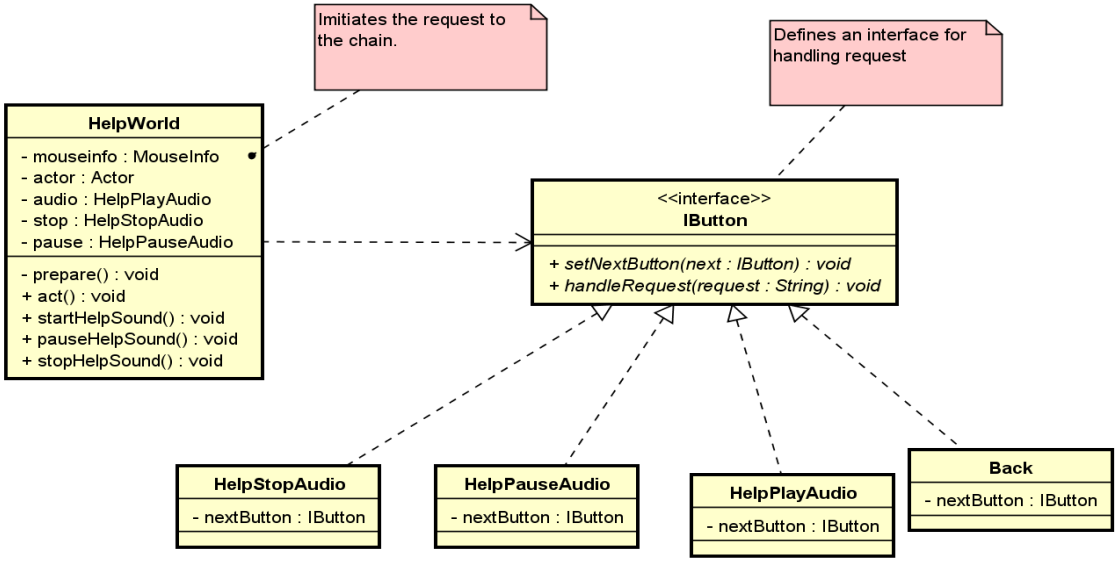
Composite Pattern



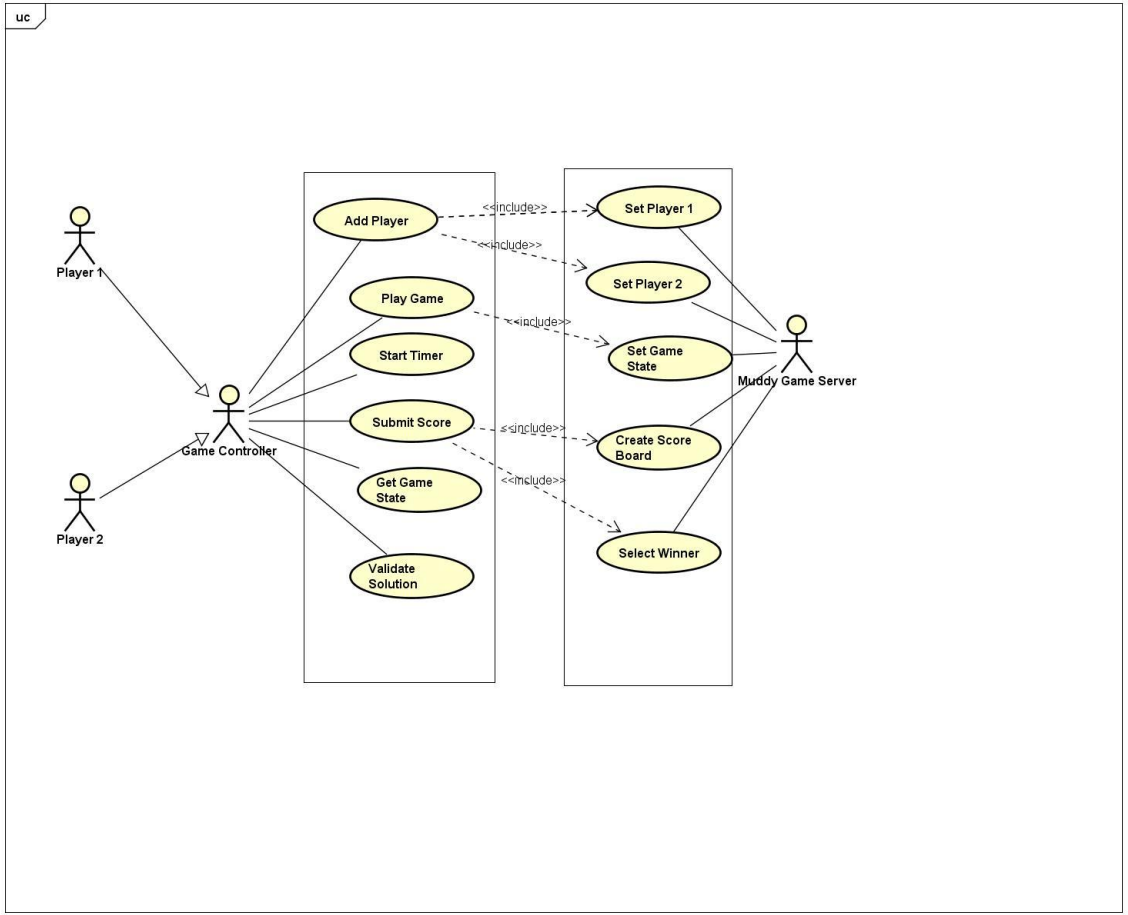
Chain of Responsibility Pattern



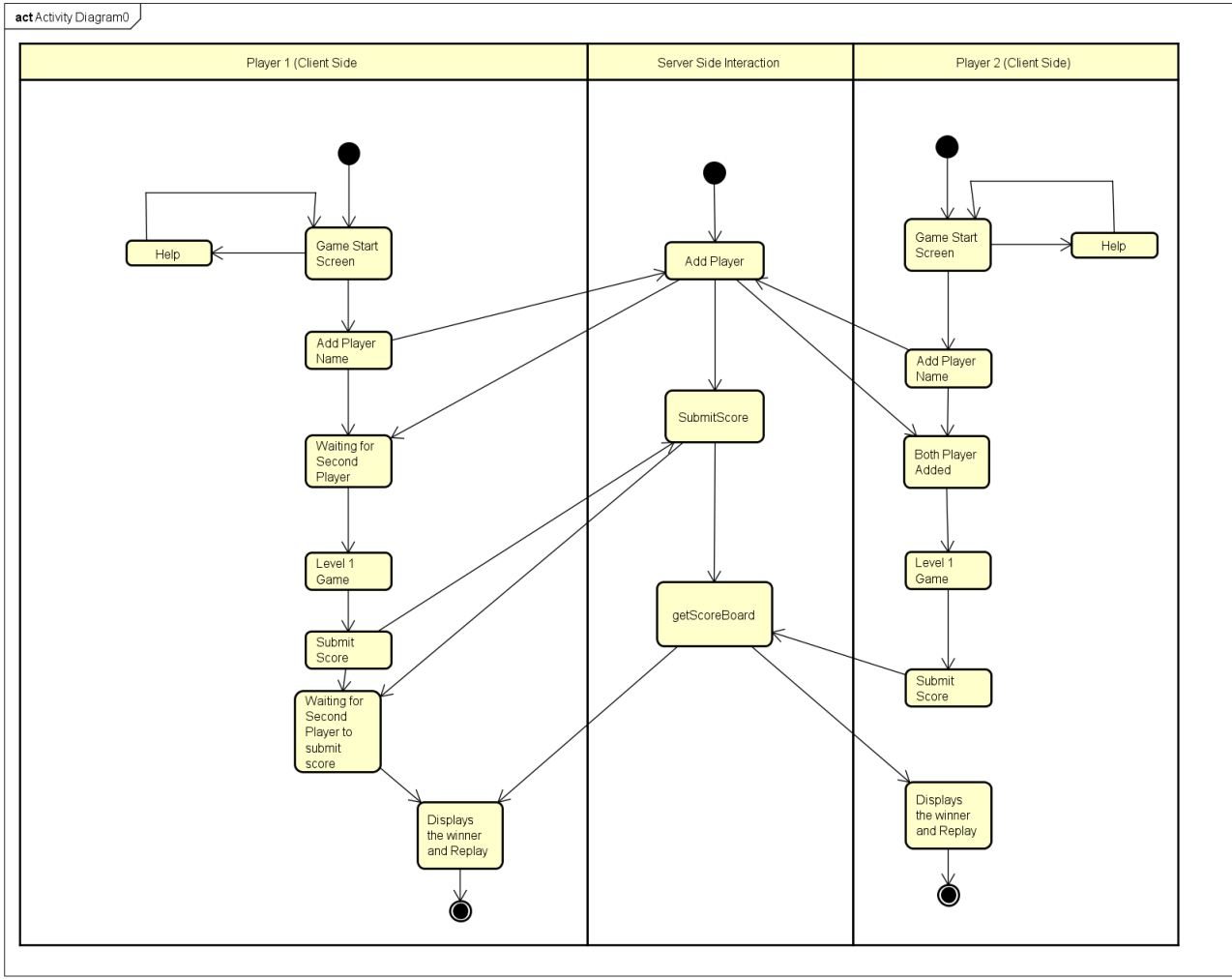
Chain of Responsibility Pattern



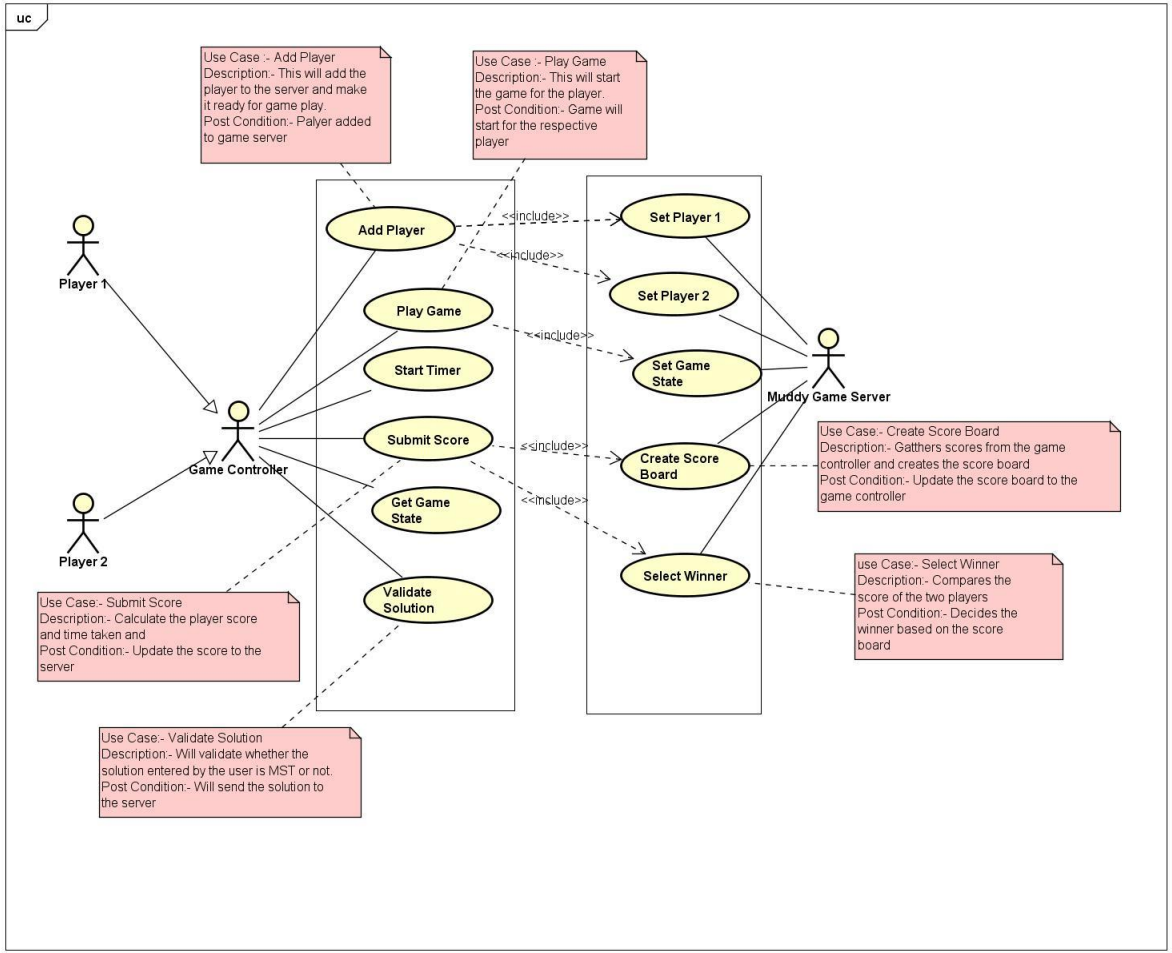
Use Case Diagram



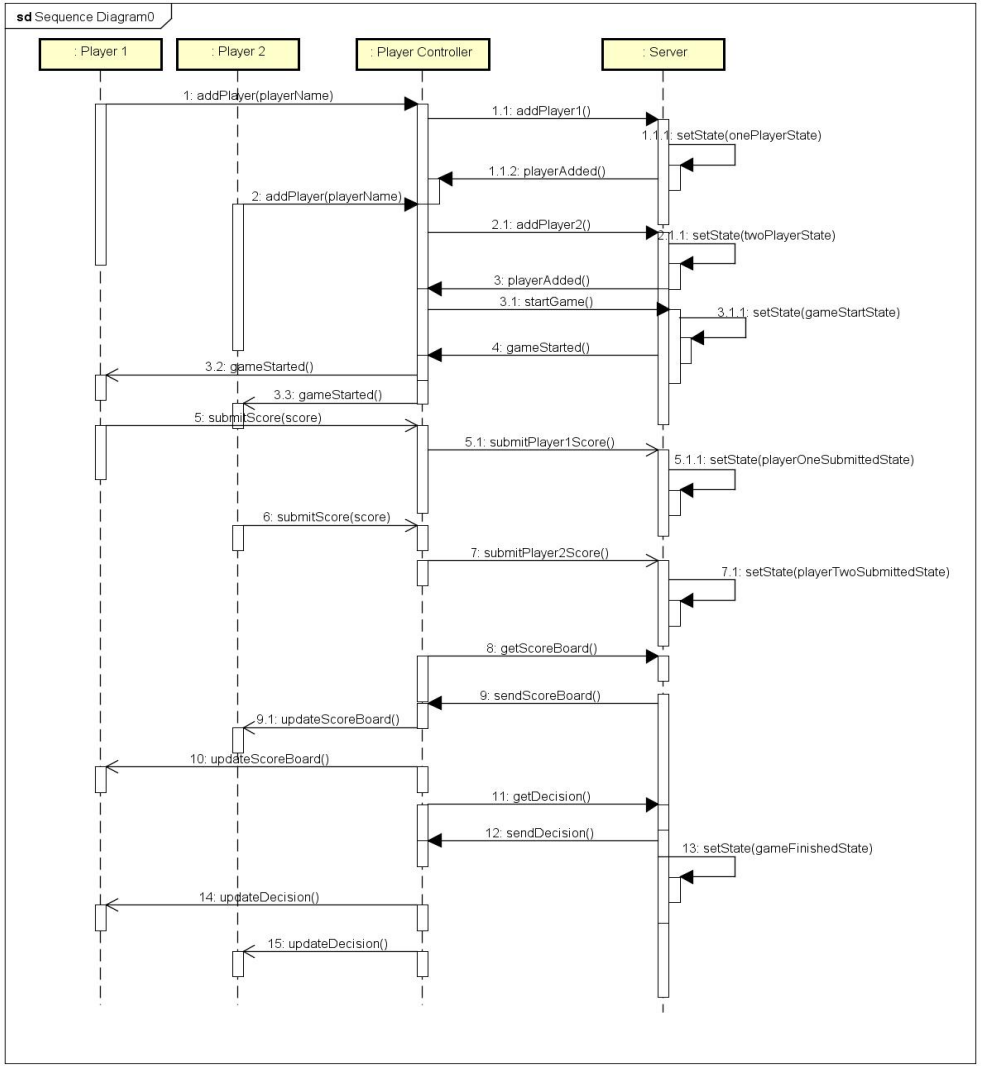
Activity Diagram



Use Case Specification



Sequence Diagram



THANKS!

Any questions?