Bombertale

5/16/2016

**Sprint Report 3**

**What we did this Sprint:**

We added latency mitigation by using client side prediction. Players who move will immediately move and if the server authorizes this movement then there will be no rollbacks. Otherwise if it is an illegal move server will rollback clients. Some changes include a periodic message that will send the server state every second for rollbacks and also many bug fixes. The game will gracefully exit if the server has an unstable connection or disconnects and will send players back to the lobby. We added a lot of safety functionality to help improve the game state for all players and fixed most of our bugs including the power ups not disappearing or players being unable to pick up a power up.

**What we didn’t do this Sprint:**

* Although we fixed our bugs, more bugs have appeared.
* Need to further improve our latency mitigation for clients.
* Bombs still stack in one spot.

**Other Challenges/Obstacles/Impediments:**

While latency mitigation wasn’t a huge issue, we had many problems with the bugs we’ve encountered while going through the milestones. It took a tremendous amount of effort to change our code in order to fix bugs. One issue was the speed power up giving the power up to all players due to our trigger request message sending from all clients to the server. We fixed many bugs but there are still more that we need to work on. Because of these bug fixes, it made latency mitigation a bit harder due to slower but safe gameplay that can be sped up with more mitigation techniques.

**What can be done better as a Team:**

We believe our team is actually doing well especially against other teams, but as always our meeting times are limited and we could probably use more time when we are all together.

**Technical Plans for next Sprint:**

We plan to improve our latency mitigation issues because despite how we can disconnect gracefully, we would still like to fix this lag. Along with that, we will fix any remaining bugs and hopefully polish our game by the end of the quarter.