Mitchell Augustin
Test Report – User Stories 12, 19, and Test Script Modifications
CS 307 Sprint 2
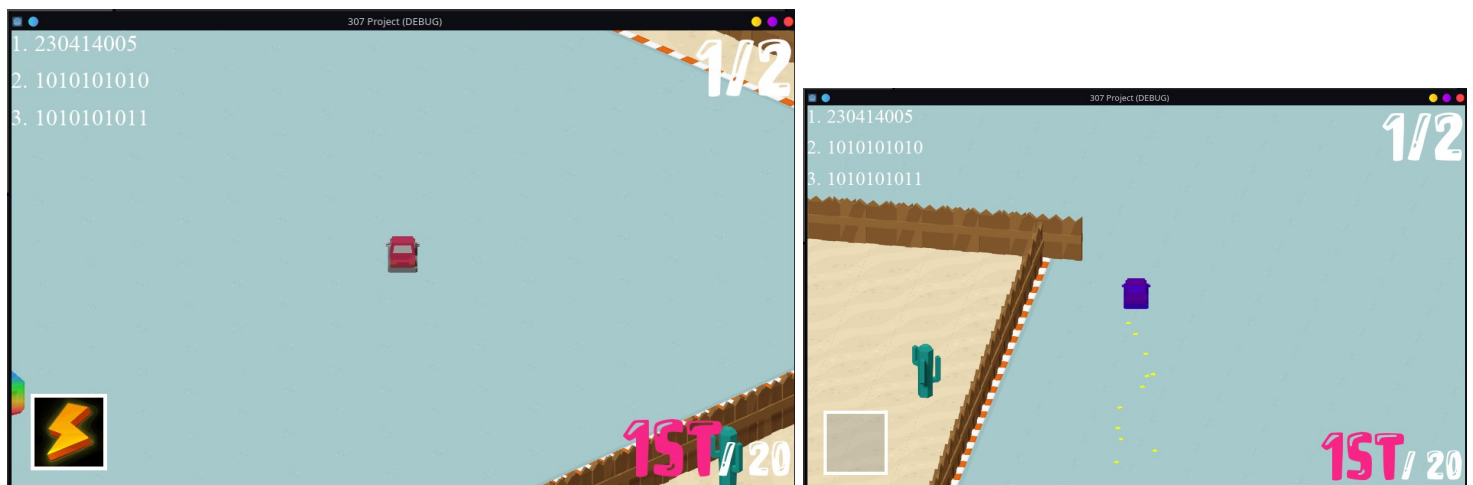
User Story 12 – Desert map for racing game

1) Tested with shim to ensure that gameplay works properly with one client.

```
[buttersalt@computo 307]$ ./Multi_user_testing-linux.sh racing_shim
```
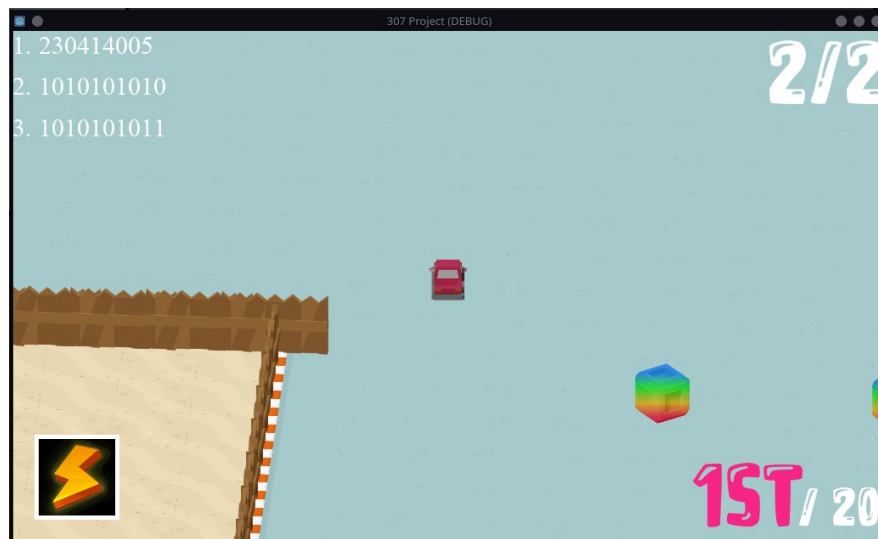
Verified that server loads correctly, places all 3 cars (1 player, 2 dummy cars) into the map, and runs countdown to start match
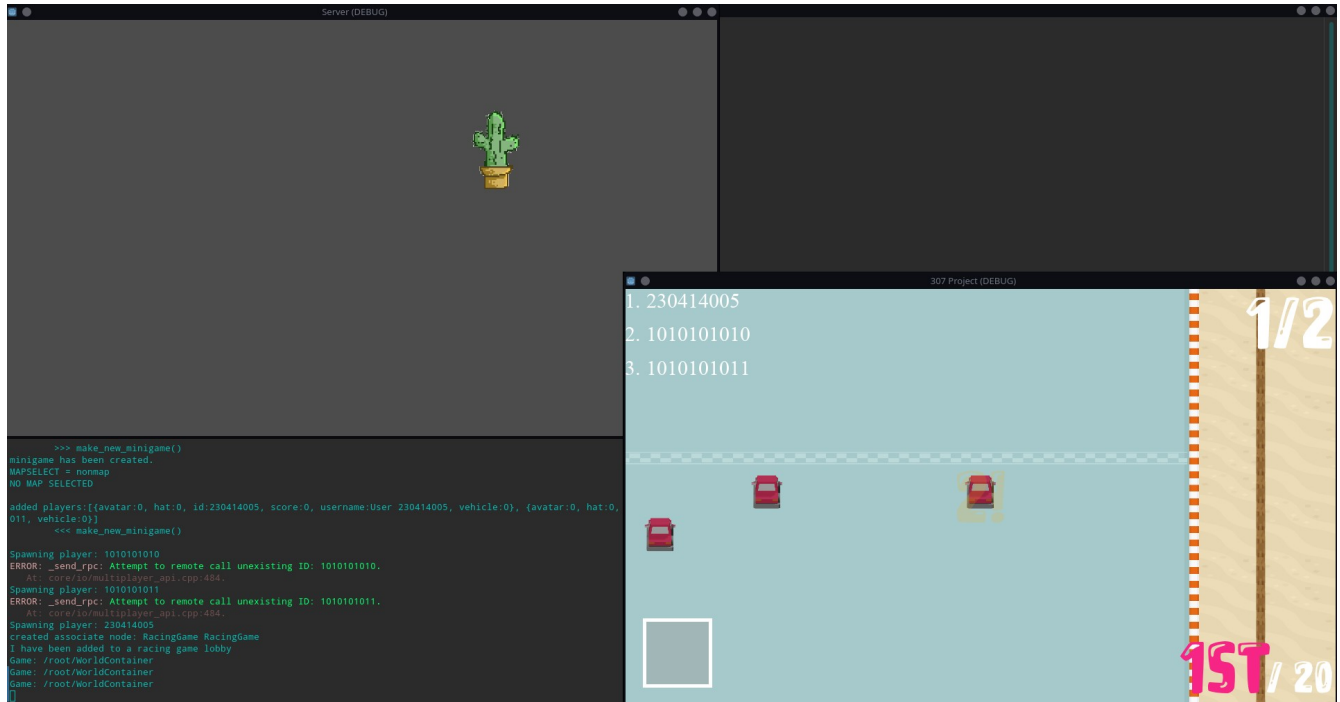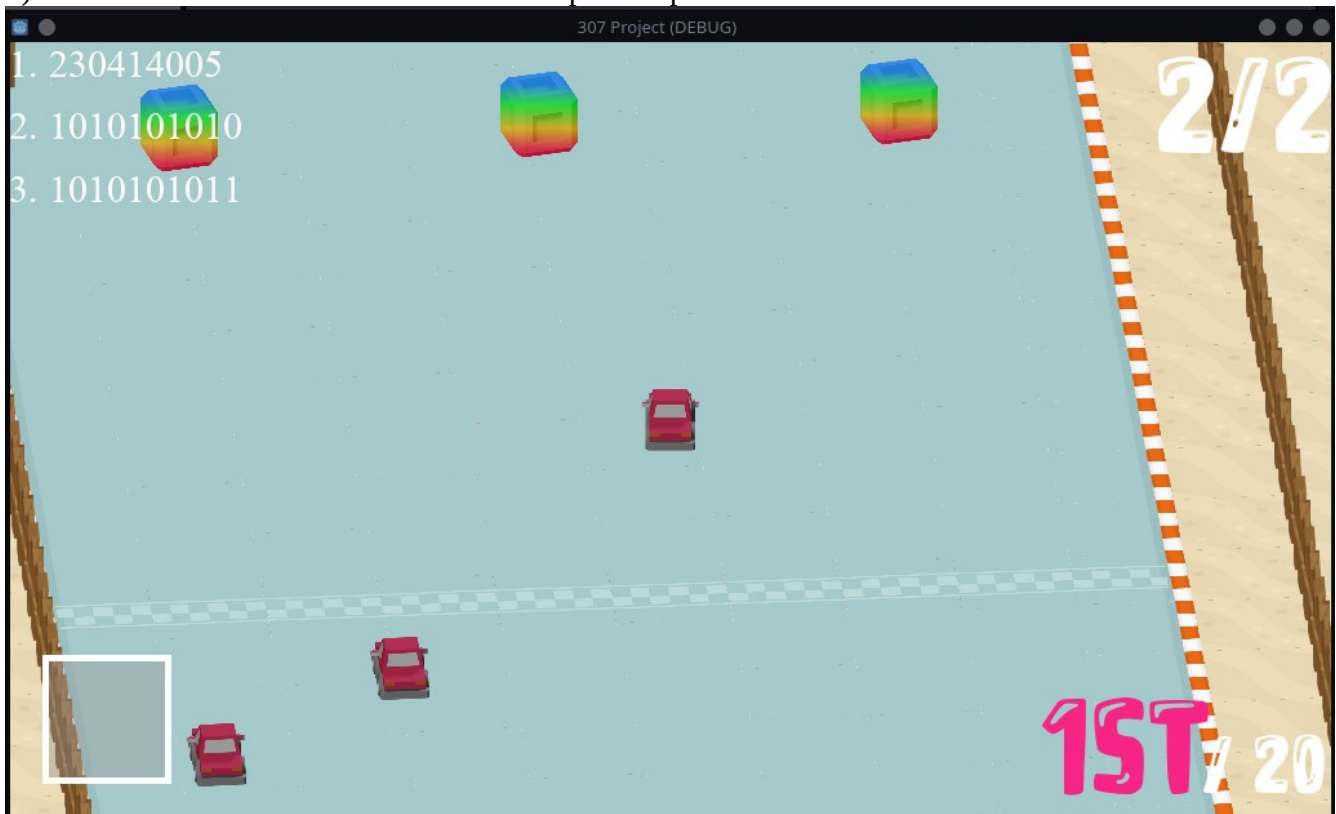

2) Verified that powerups work as expected on desert map (same as in grassland map)

3) Drove through entirety of map to ensure lap counter updates properly (i.e. trackpath is laid correctly) and collisions work as expected
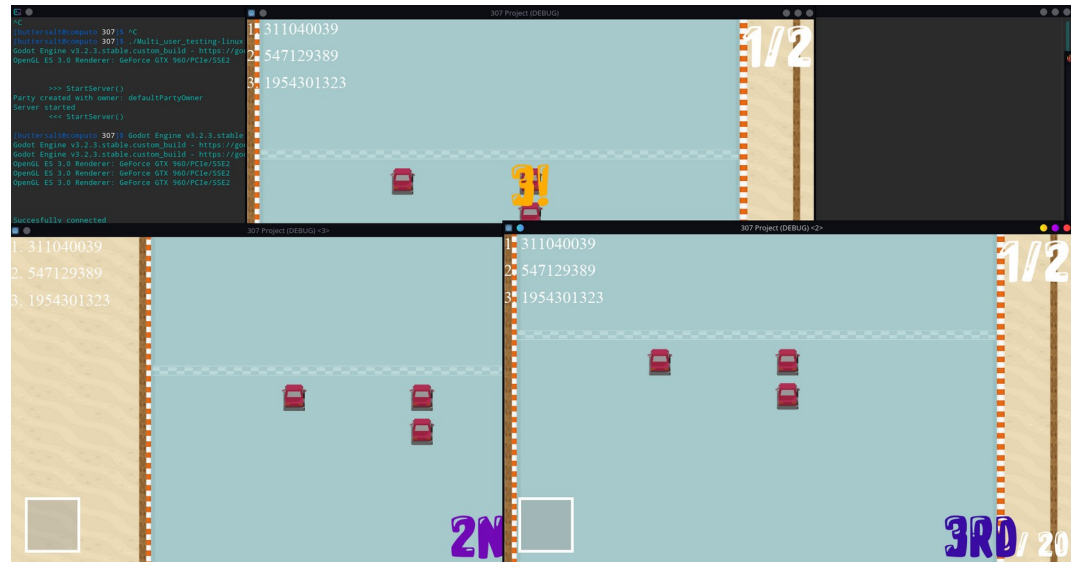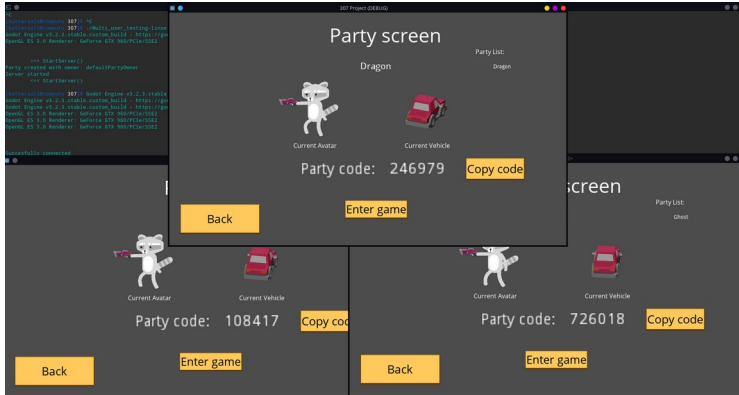

4) Finished the race and verified that car stops as expected

5) Repeated test multiple times to ensure robustness

6) Tested all racing game functionality on desert map using non-shim option with three clients
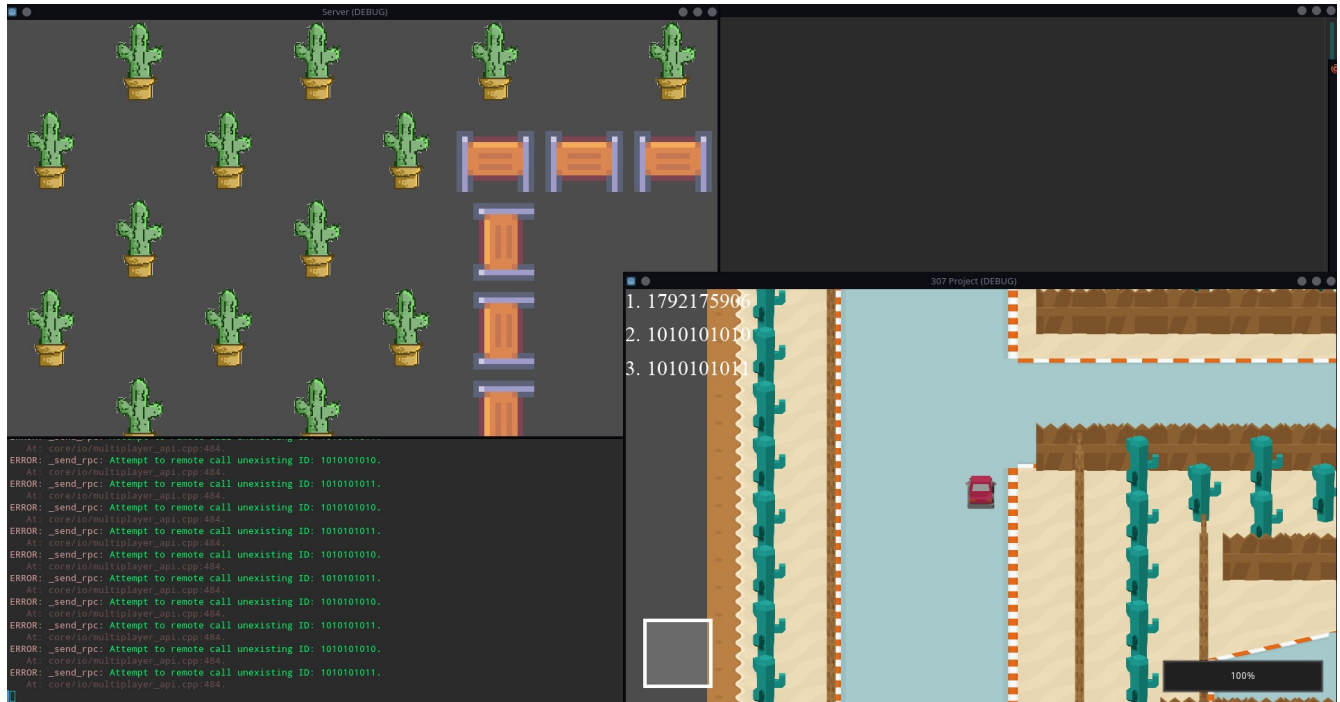
User Story 19 – Demo Derby base game and health bar

1) Ran demolition derby with shim to ensure that all base game functionality works properly with one client

     1a) Drove around map and collided with various objects to check accuracy of collisions in desert map. Everything works as expected.

     1b) Manually tested three of the hardcoded spawn positions in desert_spawn_positions at a time to ensure that all of the spawn locations were valid. This test was conducted by removing all but three values from this array, running the shim, and verifying that all cars were placed into valid locations. Some spawn locations were corrected to be valid in commit 2a48455.

     1c) Checked to ensure that single car health bar decreased when in contact with another vehicle. Below is a health bar that was fully depleted after being in contact with the car next to it.

1d) Verified that powerups worked as expected in demolition derby

2) Verified that grassland map functionality also works as expected

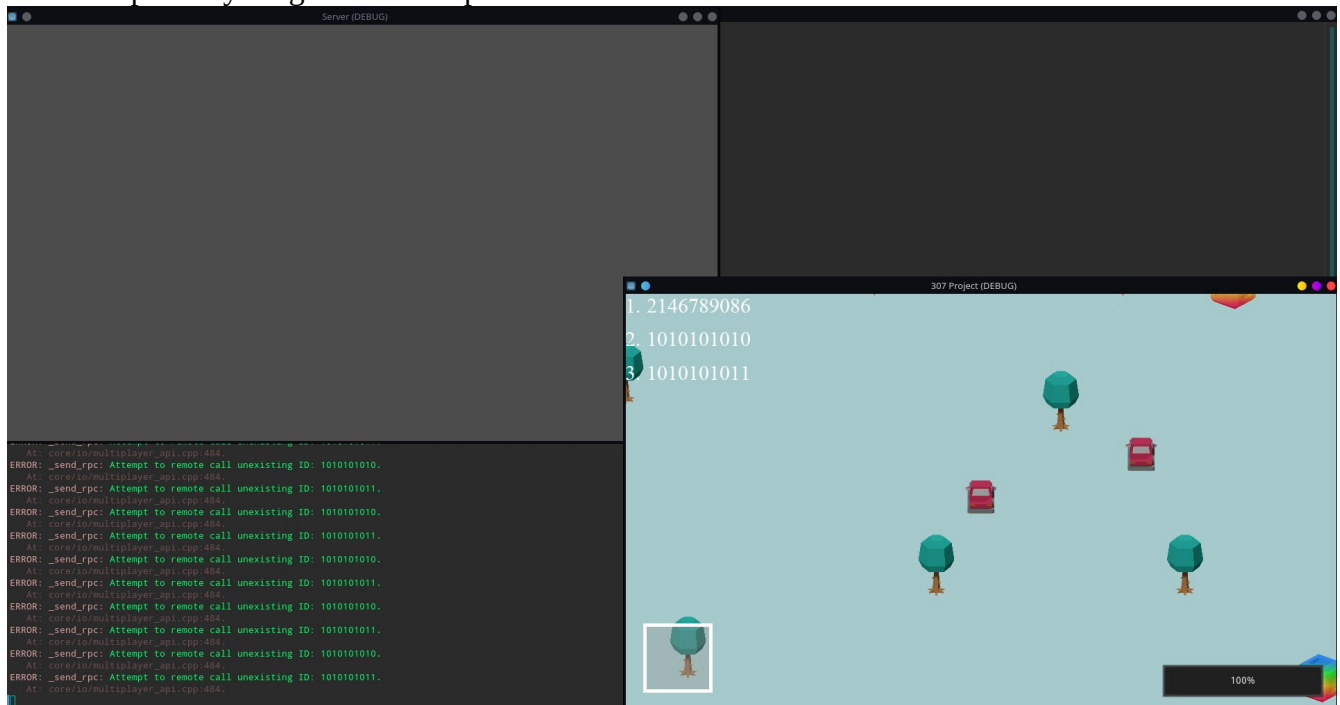2a) Drove around map and collided with various objects to check accuracy of collisions in desert map. Everything works as expected.

2b) Grassland map does not use hardcoded spawn positions, so per-location validity checking was not required.
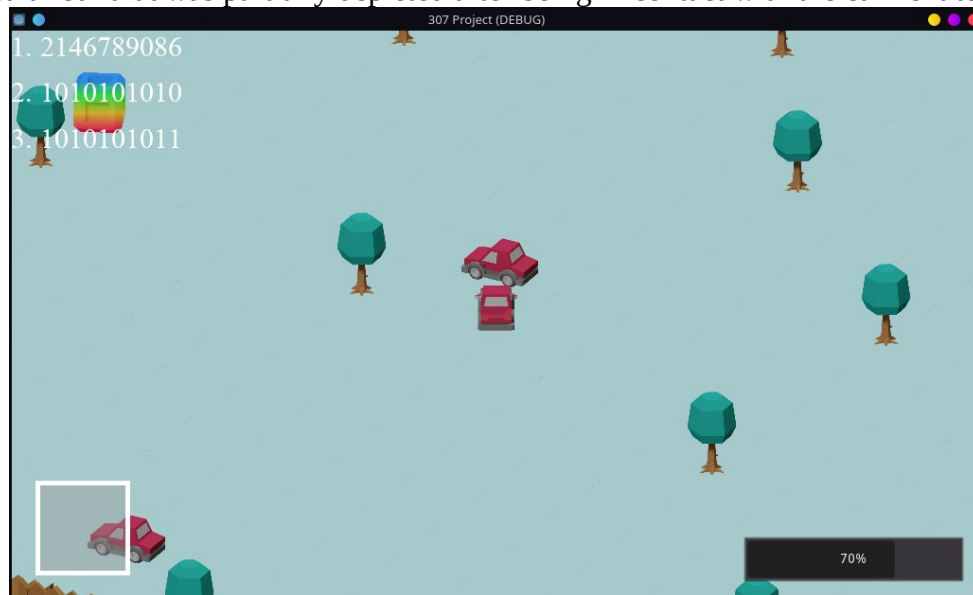
2c) Checked to ensure that single car health bar decreased when in contact with another vehicle. Below is a health bar that was partially depleted after being in contact with the car next to it.
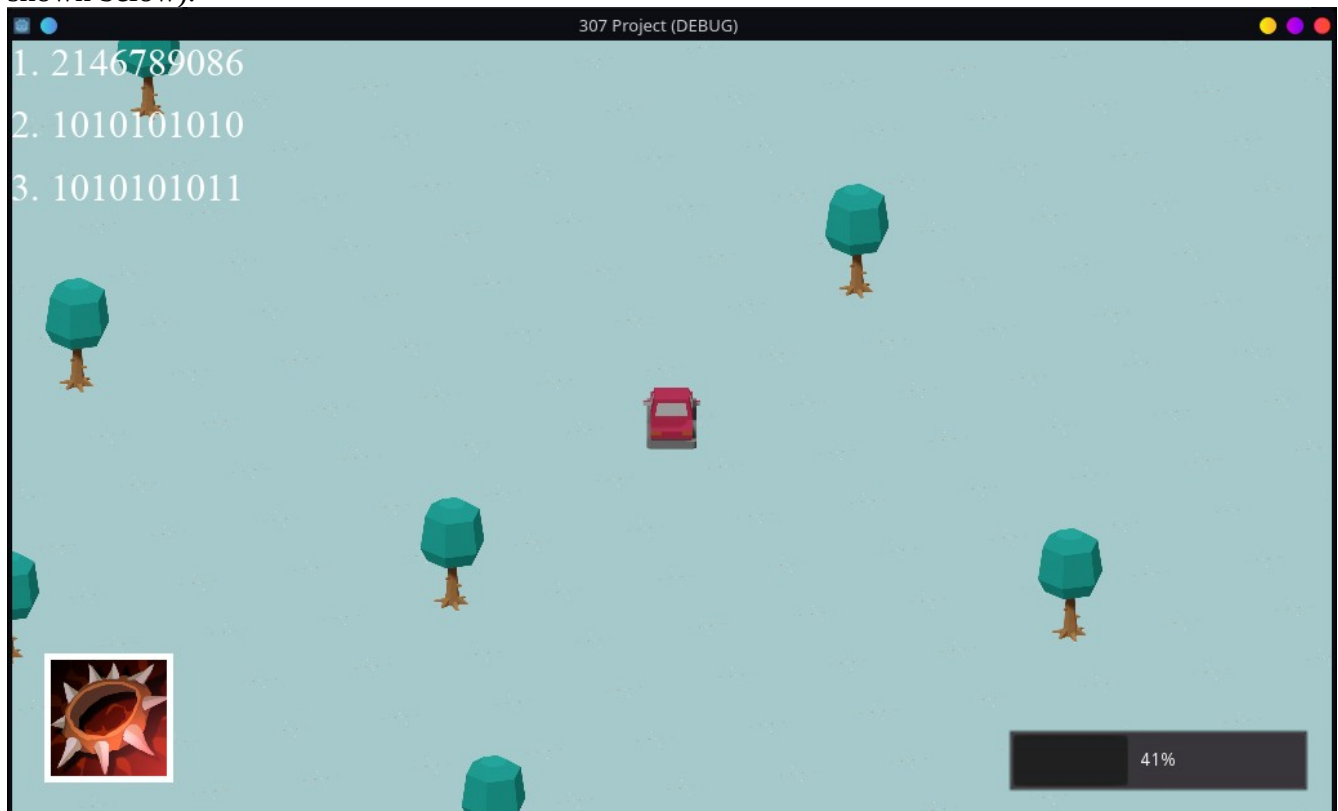
2d) Verified that powerups worked as expected in demolition derby. (Powerup after collection is shown below).

Testing modifications made to the test script

(total time testing/fixing: 20 minutes):
1) Tested to ensure that all shims worked properly with the multi user test script. Verified.
2) Tested to ensure that all no-shim test options worked properly. All except demo derby were functional.

Investigated reason for this and determined that the client had not been updated to include the demoderby test condition as a valid option. Fixed and tested (shown below):
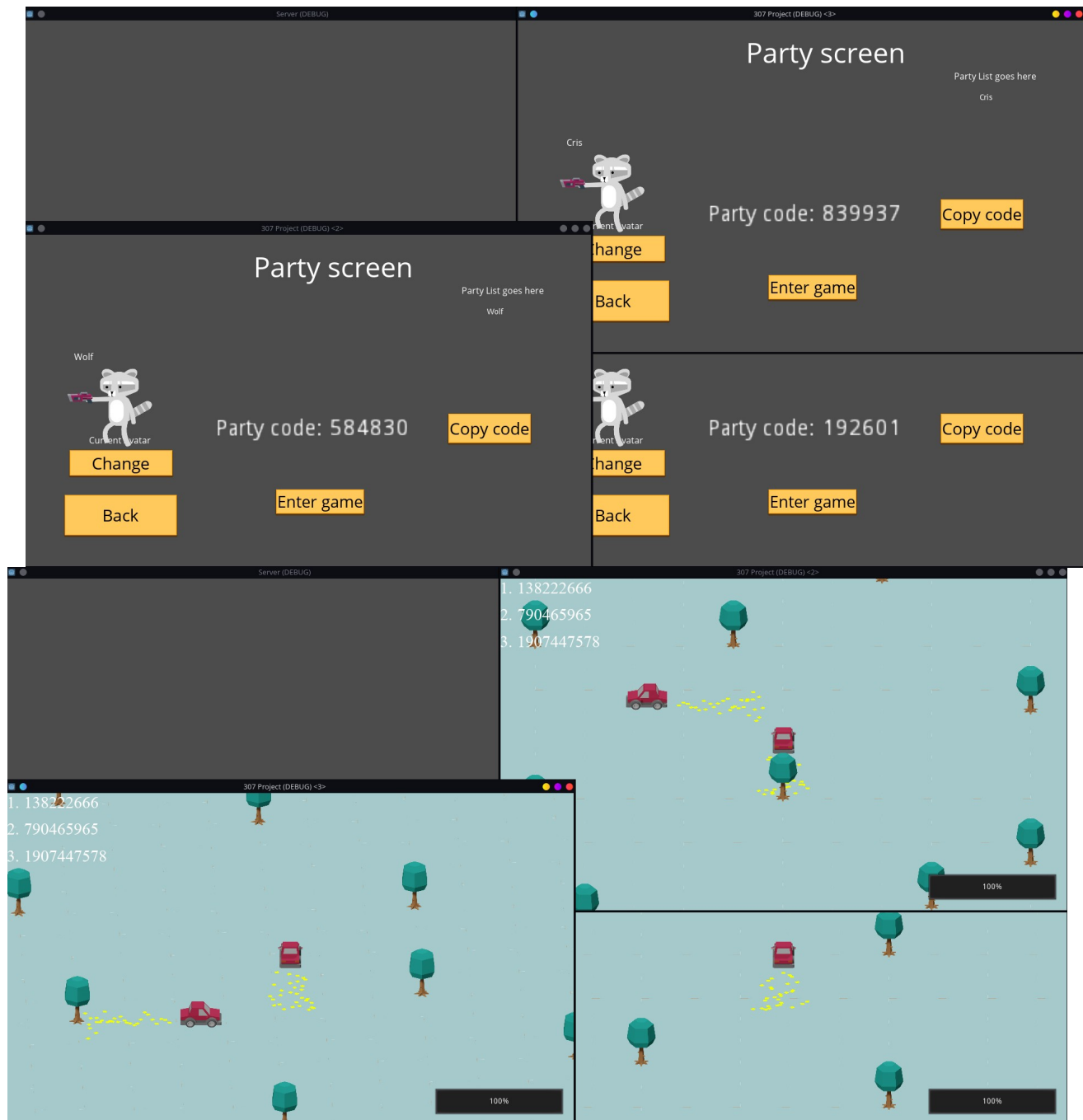
3) Verified that my fixes worked & did not break the shim

Server (DEBUG)

307 Project (DEBUG)

1. 1774533273
2. 1010101010
3. 1010101011

100%

```
ERROR: _send_rpc: Attempt to remote call unexisting ID: 1469405003.
   At: core/io/multiplayer_api.cpp:484.
ERROR: ~List: Condition "_first != __null" is true.
   At: ./core/self_list.h:112.
ERROR: ~List: Condition "_first != __null" is true.
   At: ./core/self_list.h:112.
^C
[buttersalt@computo 307]$ ^C
[buttersalt@computo 307]$ WARNING: cleanup: ObjectDB instances leaked at exit (run with --verbose for details).
   At: core/object.cpp:2135.
ERROR: clear: Resources still in use at exit (run with --verbose for details).
   At: core/resource.cpp:477.
ERROR: cleanup: There are still MemoryPool allocs in use at exit!
   At: core/pool_vector.cpp:69.
./Multi_user_testing-linux.sh demoderby_shim^C
[buttersalt@computo 307]$ ^C
[buttersalt@computo 307]$ ^C
[buttersalt@computo 307]$ ^C
[buttersalt@computo 307]$ ^C
[buttersalt@computo 307]$ ./Multi_user_testing-linux.sh demoderby_shim 2&> out.txt
[buttersalt@computo 307]$ []
```