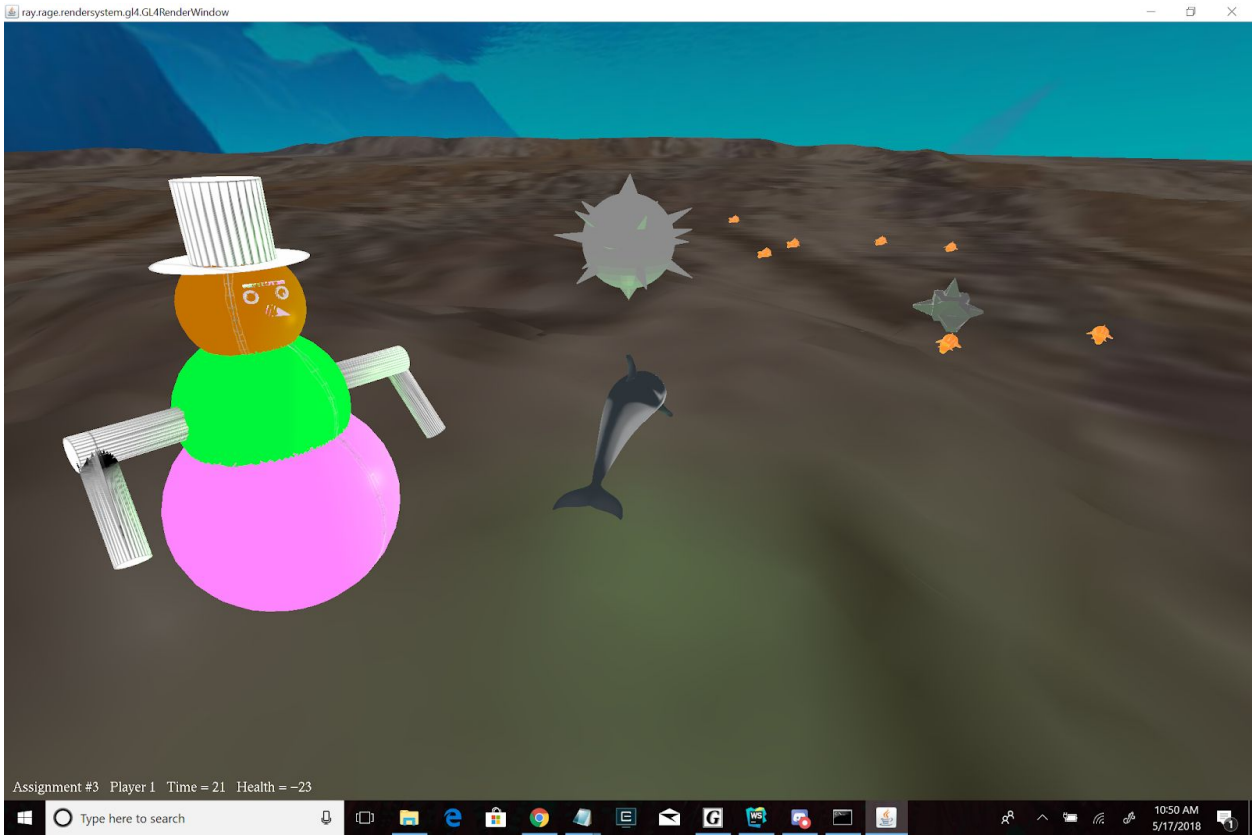
Project 3 – Player's Guide

1. Game Name - Fish Fight
   Jacob Bender
   Sami Driver
2. Screenshot



3. Compile: Open the compile.bat file and close upon completion
   Run: If running in single player, simply open run and play the game. If running in multiplayer, first open networking.bat and leave open, then open run to connect to the server. All client's IP addresses must be set to the IP address of the machine hosting the network, so the run.bat file must either be edited with the desired IP address to connect to, or the IP address can be entered manually from the command prompt in the format of "java -Dsun.java2d.d3d=false a3.MyGame "IP address" Port no." with the IP address and port number being whatever corresponds to the hosting network.
4. Special Device Requirements (if any)
5. How to Play
   -Avoid underwater mine (collision will cause health loss)
   -Avoid shark (collision will cause health loss)
   -Eat fish to gain health
6. Player Controls
   Avatar Controls:

-'W' = move forward
-'S' = move backward
-'A' = move left
-'D' = move right
-LEFT arrow = rotate left (yaw)
-RIGHT arrow = rotate right (yaw)
-UP arrow = rotate up (pitch)
-DOWN arrow = rotate down (pitch)

Camera Controls:
-'V' = zoom in
-'B' = zoom out
-'L' = orbit right
-'J' = orbit left
-'I' = orbit up
-'K' = orbit down

Avatar with Camera Controls:
-'F' = rotate avatar/camera right
-'H' = rotate avatar/camera left
-'T' = rotate avatar/camera up
-'G' = rotate avatar/camera down

Other Controls:
-'1' = start/stop shark animation
-'2' = start/stop snowman animation
-'0' = turn light on/off
-'ESC' = exit game

7. Scripting
   -Scripting adds a green positional light that attaches to the player character and also prints "hello world" to console
8. Statement
   a. Genre
      -Ocean/Underwater
   b. Theme
      -Ocean Exploration
   c. Dimensionality
      -Player motion: 3D
      -Object and NPC motion: 3D
      -View/Camera motion: 3D (constrained)
      -World dimensionality: ground
   d. Activities
      -Exploration

9. Requirement Satisfaction
    a. External Models
        -Game includes a custom-made shark, fish, and snowman models
    b. Networked Multi-player
        -Works in multi-player and single-player modes. Networking, however, is limited to only track movement of the dolphin player characters as well as their rotations. It does not include animations, physics, or any of the other fish that exist in the game.
    c. Scripting
        -Scripting adds a green positional (point) light on every players dolphin character and also prints “hello world” to the console when game begins
    d. Skybox and Terrain
        -Game includes a skybox featuring and underwater scene
        -Game includes a terrain with varying height, which the dolphin avatar follows as it move
    e. Lights
        -Ambient light created in setUpScene()
        -Positional light created using scripting
        -Directional light can be turned on/off by pressing ‘0’ key
        -Flash of red-tinted, ambient light when mine collides with dolphin
    f. 3D Sound
        -Background underwater/ocean sound attached to dolphin
        -Ticking sound attached to mine
        -Explosion sound when mine hits dolphin
    g. HUD
        -HUD includes time and player’s health
    h. Hierarchical SceneGraph (hierarchical transforms - object or system of objects)
        -Fish nodes children of parent fish node - causes fish to swim forward and occasionally turn
    i. Animation
        -Snowman moves arms back and forth when player presses ‘2’
        -Shark moves tail back and forth and opens/closes mouth when player presses ‘1’
    j. NPCs/AI
        -None
    k. Physics
        -An underwater mine is placed above dolphin avatar every 10 seconds
        -Mine is affected by gravity and is a collidable object
10. Non-working requirements
    -AI/NPCs
    -Support FSEM and windowed mode (
        Note: FSEM works if you comment out line 328 (rs.createRenderWindow(new DisplayMode(1000, 700, 24, 60), false); in setupWindow())
    -Model selection upon startup
11. Beyond requirement techniques

12. Contributions
    Jake - snowman model/animation, scripting, networking player movement/pitch/yaw, player movement, sound
    Sami - Shark model/animation, fish model, mine model, skybox, terrain, physics, camera controller, collision detection/handling, directional light, movement of fish/shark
13. Items created by us
    -Height map
    -Shark (model, mesh, texture)
    -Snowman (model, mesh, texture)
    -Fish (model, mesh, texture)
    -Underwater mine (model, mesh, texture)
14. Evidence of permission to use other items
    -Dolphin - provided in RAGE asset folder (obtained from course page)
    -Skybox - obtained from http://www.custommapmakers.org/skyboxes.php
    - license can be found in assets > skyboxes > whirlpool
    License contents:
    "This skybox has been created by 'The Mighty Pete'. He can be reached at the following WEB site:

    http://www.petesoasis.com

    The author grants you the right to freely use this sky box in your projects and distribute it under the GNU General Public License version 2."
    -Sounds - obtained from http://www.freesounds.org
    -licenses found in game folder
15. RVR 5029 Machines
    RAYMAN
    SNEEZYMUD