Software Engineering Plan

**Structure**

Our team consists of Kyle Fetterman, Taylor Peavey, and Adam Sussman. We sat down and talked about our strengths and how we could use those to benefit our game, Gravity. We each agreed to different parts of the project, but also decided to check one another’s work as we went along. We also decided it would be beneficial if we combined heads and programmed the gravitational pull of planets together, rather than have one person assigned to that specific feature. However, each of us were assigned a specific feature to program so we could show off our abilities separately as seniors in Computer Science. Below are the responsibilities we came up with to ensure we were optimizing our game’s potential.

**Responsibilities**

Kyle

* Initial game idea and description of how the game should work
* Programming the astronaut’s controls
* Programming jet pack and fuel packs
* Programming gravitational pull of planets
* Creating game title
* Creating/finding quality sounds to use as background music
* Design level one idea

Taylor

* Write out all documentation
* Programming in score and adding score when a crew member is picked up
* Programming in generation of planets and other sprites
* Programming gravitational pull of planets
* Create story/theme to back up Kyle’s game idea
* Creating/finding quality sounds to use for actions
* Design level two idea

Adam

* Create/find quality graphics to use for sprites
* Programming collision detection for asteroids and other sprites
* Programming collision detection for planets and other sprites
* Programming gravitational pull of planets
* Research game engines/environments – Love2d
* Creating/finding quality sounds to use for collisions
* Design level three idea

**Timeline**

*Proposed Timeline*

Week of November 13th – Game idea with storyline, write up all documentation

Week of November 20th – All sprites designed, all sounds found, program astronaut’s controls, program collision detection, start working on initializing score and fuel.

Week of November 27th – Program planet’s gravitational pull

Week of December 4th – Clean up remaining bugs and present!

*Actual Timeline*

Week of November 13th – Game idea, game title

Week of November 20th – Some sprites designed, some sprites found online, all sounds found, initialize level one with some planets, work on astronauts controls, work on planets gravitational pull

Week of November 27th – Add in score, fuel, jetpack programming, work more on planets gravitational pull, add in asteroid programming, work on collision detecting

Week of December 4th – Finish gravitational pull of planets, initialize level two and three, fix up bugs