**Intended animation**

Our animation is a scene that depicts outer space. We have a UFO, a planet, and a rocket translating through space.

**Hierarchies**

The Planet object has two levels of hierarchical grouping: the planet itself and the flag that is on the planet. Each subgroup has different animations, described above. The flag is animated in a waving motion using the shearX and shearY functions; the planet moves with the flag through space. There are 2 instances of the Planet object, where the planet and flag have different speeds and directions.

The Rocket object’s levels of hierarchical grouping are the rocket and its satellite dish. The rocket translates from left to right and up and down with the satellite dish staying on the top of it and rotating independently of the rocket. When it disappears off the right side of the screen, it returns on the left.

The UFO object’s two levels of hierarchical grouping are the UFO itself and the missiles around the UFO. They have different animations, described above, and the different instances of the UFO have different sizes and speeds. When the UFO moves off the screen, it comes back onto the scene with the same velocity beginning from the opposite side of the screen (Pacman style).

The planet's two levels of hierarchical grouping are the planet and the flag on top of the planet. The planet and flag rotate at equal speeds; comparable to real life. The flag translates across the screen along with the planet. I used Jane’s Rocket code in order to move the planet and flag to the beginning (left) of the screen.

**Group work**

Braxton created the Planet object, Jade created the Rocket object, and Jack created the UFO object. The separate pieces are instantiated with appropriate sizes onto the same canvas, which is an image of a galaxy in outer space. Items move in front of and behind each other without bumping into one another.

Each person used one or more .obj files to create their class.

**Unexpected Challenges**

None for any group member.