**3.7 Exercises**

1. A 3D sci-fi shoot-em-up game set in Andromeda where the player chooses to control an astronaut or one of his friends as they fight off a horde of alien invaders. The challenges are almost entirely conflict-based, with some element of exploration. Until the battle with the final boss, this is an endless space shooter game, with the player heading farther into the galaxy as they defeat more aliens. The player earns points for defeating aliens and collecting power ups to increase their firepower and HP. The player takes damage if they are hit by aliens, their spaceships, or projectiles launched from alien spaceships. After the battle with the final boss, any remaining HP is converted to points. If the HP reaches zero, the player gets a Game Over.

Linear version of Story:

Far, far away, in Andromeda, there exists a planet called Galaeus, where the wounds of conflict threaten to dig deep into the planet’s psyche. Many years ago, the unprecedented discovery of a wormhole marked a milestone for those wishing to explore the greater reach of the galaxy- the wormhole became famous for providing transportation between Andromeda and the Milky Way. Relations soon developed between these distant parts of the galaxy.

But it also laid the groundwork for apocalypse. An evil alien race from another planet invaded the Milky Way in a vile attempt to exploit the economic resources of other planets to develop its own alien colony. Life all across the galaxy died off as the aliens conquered and destroyed planets, with those who were lucky to survive fleeing through the wormhole to the hi-tech Galaeus, seen as a beacon of piece in the galaxy.

Now, in the year 2100, most of those refugees live peaceful lives on Galaeus, painful memories from that apocalypse forever a part of their identity. One day, they are painfully reminded of those memories when the same alien race that invaded their planets years ago launches an attack on Galaeus, hoping to exploit this wealthy and hi-tech planet’s economic resources, as it previously did to other planets.

One of those refugees, Asteroid, who was orphaned but is now the best astronaut in the galaxy, learns of this impending catastrophe and is recruited by the Army Of Galaeus to help them fight off the invasion. He vows to avoid a repeat of the catastrophe that ravaged the Milky Way when he was a child and restore peace to the universe…

Non Linear version of Story:

Asteroid receives a message from the Army of Galaeus that a hostile alien force, the same one that invaded the Milky Way many years ago, is attacking. They ask him to join their force as an “Armada,” a member of the Army who goes into space to defend Galaeus against alien invasions. He instantly agrees to and heads off to a quick training session.

Once his training is complete, he heads into space to fight off the first round of invaders. If all the spaceships are destroyed, he completes the level and must face off against the next wave of invaders.

After this, the player is taken to a world map and receives a choice of two paths; fight off the next wave, or, controlling one of Asteroid’s friends, detour off the main path of the game and engage in a subplot; rescuing a group of travellers caught up in the invasion.

During the next wave, Asteroid is tasked with infiltrating the control room of the mothership. He engages in a shootout with the crew on board and manages to destroy the ship.

After this, the player once again receives a choice of two paths; travel with Asteroid’s guide, General Julian Nova, to hunt down the leaders of the alien clan, or fight one last wave of invaders and their commander, the miniboss, before facing off against the final boss.

If the player chooses the path with Julian, he directs Asteroid to an unrecognizable ship, then knocks him out, revealing himself to be a traitor working with the invaders. The player must then control Asteroid’s friends in a quest to rescue Asteroid. They manage to break into the ship and free Asteroid so they can all fight in one last battle. After the final battle, Asteroid’s love interest, Sergeant Jessica Venus, is hurt. He must now carry her to safety before the ship self-destructs.

If the player chooses the other path, they must destroy the final horde, and then the final boss in multiple forms, to defeat all the invaders.

Upon their return to Galaeus, Venus kisses Asteroid and the two officially fall in love.

2. a. Linear Story: Passive challenges. The UI will be an open world where the player can fly anywhere they want, but the task will be to destroy the aliens. Otherwise, the story will not progress. The supporting cast will help fight the aliens.

Non Linear Story: Passive challenges. The UI will be an open world where the player can fly anywhere they want, but the task will be to destroy the aliens. Otherwise, the story will not progress. The supporting cast will help fight the aliens.

b. For both, I chose real-time mechanics.

3. Entities include points scored, HP, the level, and how much firepower the ship has. Aliens will fly at the spaceship from most directions, but warning will be given well in advance if the player is about to be hit. During the world map, there will be instructions detailing all the tasks that the player has to complete to complete the game.

4. This level is open-world space with the planet Galaeus visible in the background. Individual challenges will include shooting down countless alien spaceships. This is a fast-paced level. The layout that I chose for this level is open space, with no ground, because it is designed to be a classic sci-fi shoot-em-up game.