CMPT 276 - Project Statement

Team: 14
Game: Cosmic Escape

## 1. Description of the Game

"Cosmic Escape" is a 2D, grid-based arcade game developed for our CMPT 276 project. The game follows a science-fiction theme where the player, controlling an Astronaut, must navigate a hazardous, alien-infested station. Throughout the level, you will encounter various enemies, such as aliens and turrets. Enemies will have a certain vision range that the player must avoid. The environment also contains hazards that can slow down or even eliminate the player. Scattered across the level are various rewards that the player can collect to aid in their escape.

**Objective:**

The primary goal is for the player to collect all Power Crystals (the "regular rewards") scattered throughout the level. Once all crystals are collected, the player must safely reach the Teleporter (the "end cell") to win the level and progress.

## 2. Overall Plan

Using the UML and mockups that we've created, we will be implementing different packages that contain our classes including:

- **Model (Game Logic)**: This package contains the classes that make up the core of the game. This includes the Game itself, the Player, the different Enemy and Reward types as well as the Walls, Doors, and Teleporter. A Stage class will be used as both a tracker and a factory for setting up the level. It will create all the various objects seen on screen and set their positions. The Game class will handle all the logic between the objects and will be responsible for starting and moving forward throughout the levels.

- **View (Game Visuals)**: These classes draw the game on the screen. GameView will draw the board, player, and items. HUD will show the score and time. Anything the player does that can affect score or time will be reflected on screen using the classes in this package.

We will be using a Java specific game engine library such as libGDX or Mini2Dx to implement the game logic and management of assets. In the final phases of the project, we will be using sprite-based assets and space-themed music to fit the aesthetic that can be imported using one of the chosen libraries.