

- 1) Additional feature: The first feature is reading and writing text to and from a file. This feature deserves 10 marks as I created the writeFile class and the ReadFile class. I then had to overcome the challenge of writing the users name to the text file. I cleverly inserted a JText component with an enter button in my StartMenu class. The challenging part about this was the fact that i had to create an empty string variable pName which i could reference in the StartMenu class. Once this was figured out the rest of the implementation was more to do with creating a WriteFile object in the enter button action performed method. I created a writeFile object in the go to next level method in my Game class. This was initially tricky but i soon figured that to get all the health counts and the emerald counts i had to print it at the level == 4 if branch and just before System.exit(0). Reading the object was harder as i had to create a new JPanel called HighScore. Once this had been done i had to create a new ReadFile object in the ShowScores button actionPerformed method. The challenging part about implementing this was the highscores.append method call as i just could think of a way to set it up to count the array lines and then separate them.
- 2) Additional feature: The next feature is the AI that i implemented in level 4 with the Martian class and the Boss class. I got the Dynamic Bodies to move left and right to sense each time it touches the wall and move in the other direction. This was hard as i had to implement the step Listener and calculate the actual position compared to the position i had coded and logically the code was tricky. I did however solve this and get both AI's on each character working.

Overall my game is exceptional because it goes beyond the additional features asked for as i have a ufo that fires Bombs based on a timer in level 1. This piece of code was tricky as i had to add an action performed method to level 1 and read up on the timer documentation online, because my implementation was different to class implementation of making a class.

I furthermore have Music on the startMenu JFrame and music for pickups by the player – when collecting emeralds and health packages. I have an interesting GUI that prints the user's name when entered and also the current level the user is on. I also have images for the buttons on the start menu.

All in all my game is an exciting odyssey around space that has implemented each of the concepts that we've been taught while taking my learning further.