**New Features**

Floaters

* Red: Bomb when falcon collides with it, all asteroid will be killed
* Yellow: get fire power up (expires in 200 ticks). Fire changes from Bullet to Cruise and Cruise will reflect will it touches the edges of the screen
* Blue: add a life
* Green: get a shield (expires in 100 ticks).
* When a big asteroid is killed, there is 50% chance to get a new floater
* After some interval, a new floater is put in randomly

Score and level

* There will show current score and level on the left-top corner.
* Level-up rule is changed: Level will add one every time user earns 10000 points.

Explosion and dust

* Add explosion effect when an asteroid is killed.
* Dust will be generated with explosion which is not harmful to the falcon and will shrink with time goes by(expires in 100 ticks)

Asteroid generating rule changed

* Asteroid will keep adding until the sum reaches upper bound which is current level \* 5

New Control

* use "WASD" keys to move and diagonal moves are supported
* use "→←↑↓" keys to fire and diagonal firing are supported

**Self-reflection**

Appraisal

* Create a colorful JFrame.
* Enable player to pause at any time with “P” button.
* Player can now exit the game by pressing “Q” button.
* Several levels added, make the game more fun!

Unresolved problem

* Player can only get control the falcon for 10 seconds and the key will lose function.
* Collision isn’t detected.
* The movement of the falcon looks too unrealistic.
* High score setting doesn’t seem to be working.

Personal idea on the assignment

* The assignment is hard because a lot of my idea cannot be performed in this game due to limited proficiency of java knowledge. I take the reference from the internet to create certain parameters. The method I used to do this assignment is the write and run method to test the code. Each time I finished a class, I will run the program with sample class with main method and observe the outcome of the written code to check if the error is still existed or if it’s perfect to proceed to the next code. However it means that I will need to do more revision and study in the future.