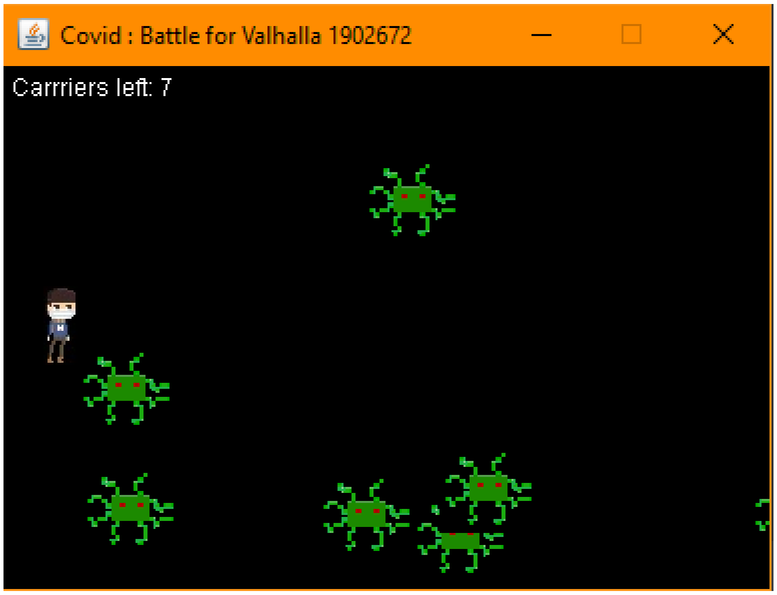
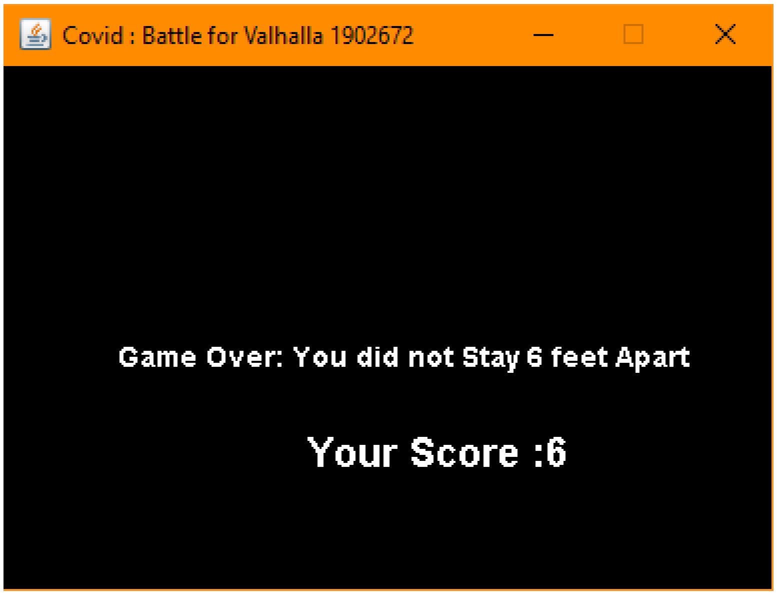
a. Your user interface should be run as an application in which shapes object(s) can be moved and/or rotated either in a 2D pane or on a fixed grid of filled squares:

I have used a 2D pane.



Carrriers left: 7

b. At the end of the round, your score is displayed:

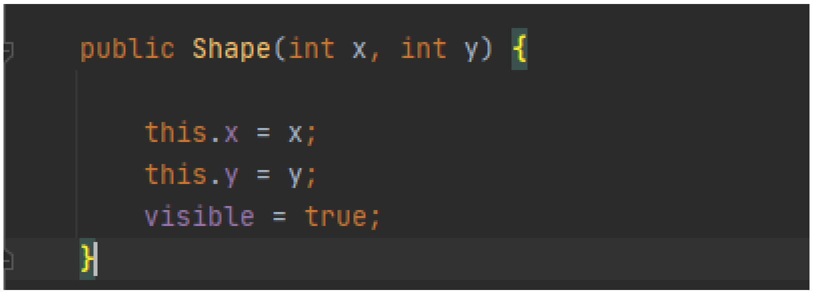


Game Over: You did not Stay 6 feet Apart

Your Score :6

2a. Creation of game objects / shapes encapsulated in their own classes and inheriting from an abstract class in which methods related to how the game objects are displayed and manipulated are suitably overridden:

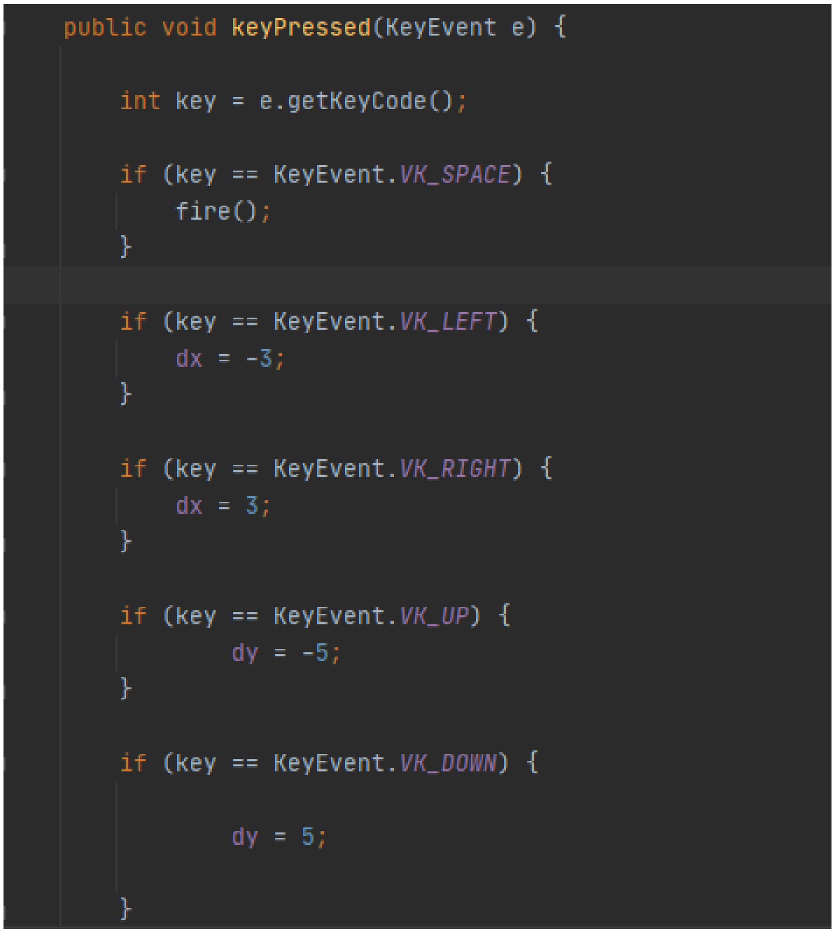
I have created a class called shape and all my objects inherit from this class and expand accordingly.



```java
public Shape(int x, int y) {

    this.x = x;
    this.y = y;
    visible = true;
}
```

b. Two event handler classes to respond to keyboard events (e.g. pressing the arrow keys) and mouse events (e.g. pressing the mouse buttons)

I have created a key listener that allows the player to move using the arrow key and allows the user to shoot using the spacebar. I also created a mouse listener but did not use it as I felt it would defeat the purpose of my game.

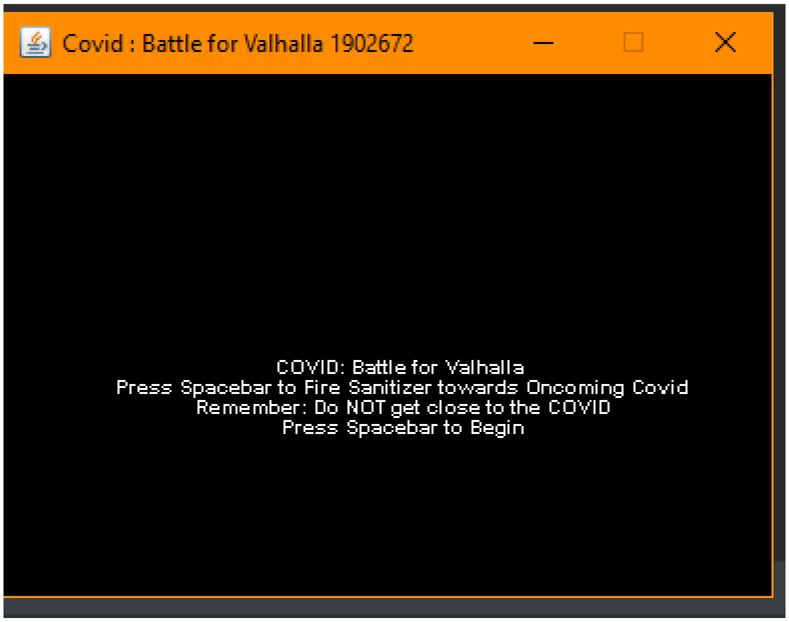


```java
public void keyPressed(KeyEvent e) {

    int key = e.getKeyCode();

    if (key == KeyEvent.VK_SPACE) {
        fire();
    }

    if (key == KeyEvent.VK_LEFT) {
        dx = -3;
    }

    if (key == KeyEvent.VK_RIGHT) {
        dx = 3;
    }

    if (key == KeyEvent.VK_UP) {
            dy = -5;
    }

    if (key == KeyEvent.VK_DOWN) {

            dy = 5;

    }
```

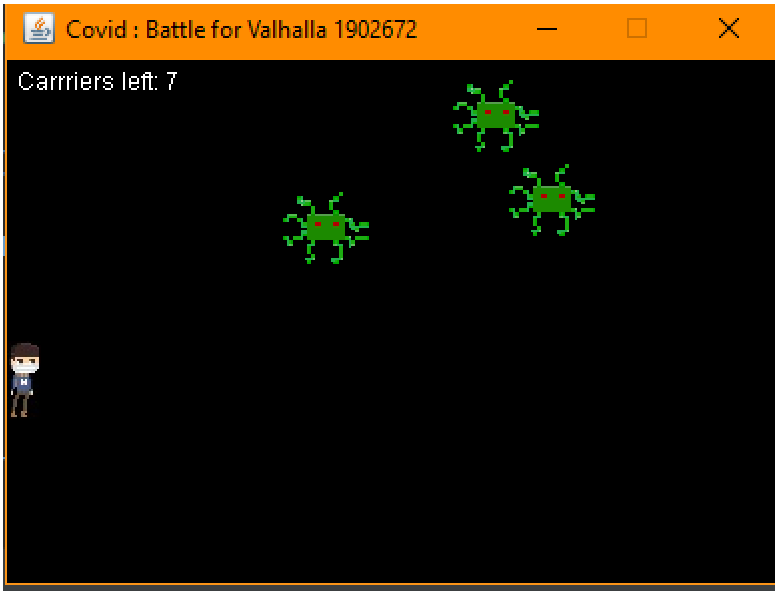
3a. Correct use of a collections data structure for storing game objects:

My objects are in a list.

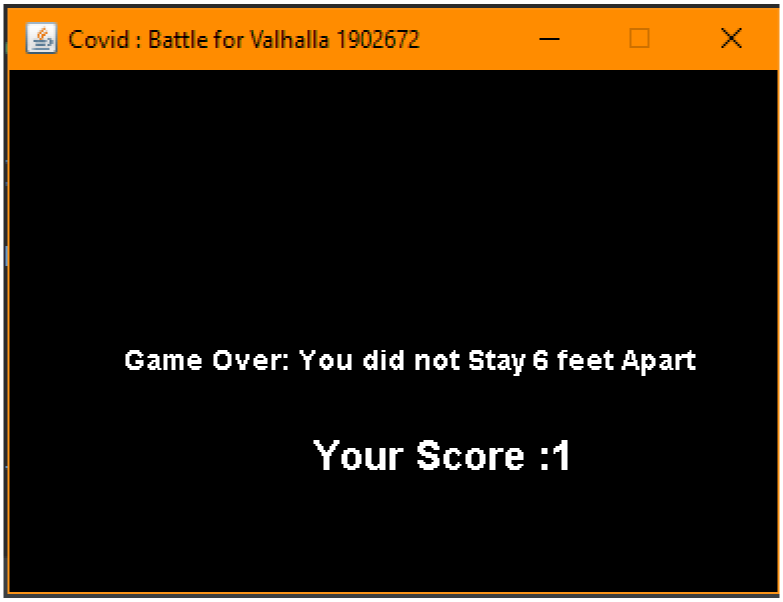
5.



```
COVID: Battle for Valhalla
Press Spacebar to Fire Sanitizer towards Oncoming Covid
Remember: Do NOT get close to the COVID
Press Spacebar to Begin
```



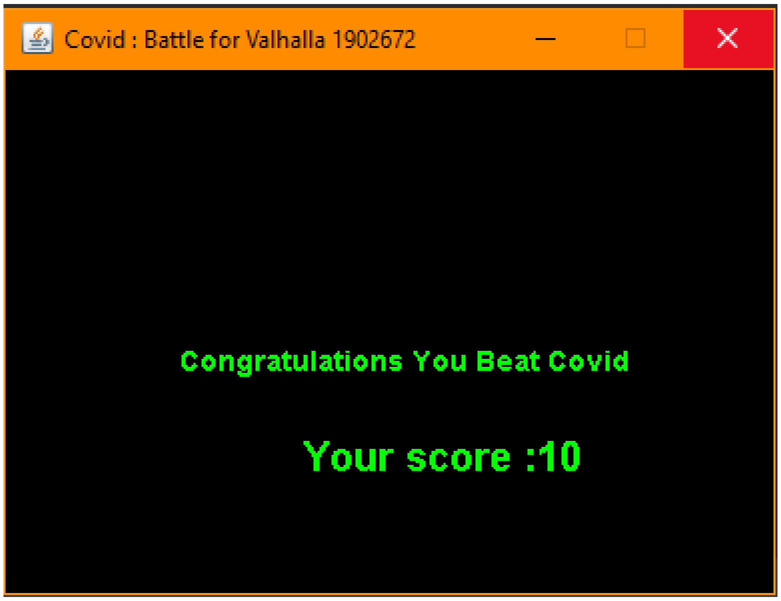
```
Carrriers left: 7
```



Covid : Battle for Valhalla 1902672

Game Over: You did not Stay 6 feet Apart

Your Score :1



Covid : Battle for Valhalla 1902672

Congratulations You Beat Covid

Your score :10