Assignment 2

Deadline	Hand in by 09:00am on Monday 19th September 2016
Evaluation	15 marks (= 15% of your final grade)
Late submission	3 marks off per day late
Work	This assignment must be done **individually**. Your submission may be checked for plagiarism against other assignments and against online resources. **Acknowledge your source if you adapt material from someone else, the Web or even the code samples handed out as part of this course.**
Purpose	To practice concepts introduced in the lectures, in particular, 2D drawing and the use of a render loop for sprite animations.

Problem statement: Write a program that uses animated sprites for a user controlled character.

Requirements:

Write a program called *Animation* that provides the following features:

- Can load the provided sprite sheet and is able to draw the individual sprites contained on it. Note that each of the sprites is 256x256 pixels with no padding between them and there is one animation sequence per row.
- The program initially displays the sprite in the top left (state *underground*), centred at the bottom of the frame.
- The user can use the arrow and space keys to perform the following actions:
  - Up arrow: play the *appear* animation (row 1).
  - Left arrow: play the *walk* animation (row 3) and keep moving the sprite to the left until the key is released.
  - Right arrow: play the *walk* animation (row 3), but horizontally reflect the sprite around its centre such that it faces to the right. Keep moving the sprite to the right until the key is released.
  - Down arrow: play the *die* animation (row 4).
  - Space: play the *attack* animation (row 5).
- When no action is active and the skeleton is *not* in state *underground* or *dead*, play the *idle* animation (row 2).
- While the skeleton is *underground* or *dead*, the only possible action is to *appear*.

You **must** add the following print statements with your own details to the top of the main function:

```
public static void main(String[] args) {
    System.out.println( "----------------------------------------" );
    System.out.println( "159.235 Assignment 2, Semester 2 2016" );
    System.out.println( "Submitted by: Mouse, Mickey, 12345678" );
    System.out.println( "----------------------------------------" );
    ...
}
```

The code must be able to compile and run on the Massey Lab computers!

Hand-in: Submit a zip file with your source code through the Stream assignment drop-box.

Assessment criteria: Marks will be allocated for: correctness, fitness of purpose, use of good coding practices, use of sensible comments and program documentation, and general appearance. Good comments in your code will help me to award you marks even if your code is not quite perfect.

If you have any questions about this assignment, please ask the lecturer.