**Space Invaders v1.0 Game**

Create a “Java project” in Eclipse and create the classes *InvaderMain,* *InvaderWindow*, *Controller*, and *Arena*. Copy the content from the linked classes into the source code files. Everything should compile without any errors.

Before you can run the program, you need to copy the “resource” files to the correct Eclipse project. First, download each of the resource files (icon1.jpg, icon2.jpg, shoot.wav, invader.wav, invaderkilled.wav) to your laptop (anywhere), then drag-and-drop the downloaded files into your Eclipse project folder in Eclipse.

Now you should be able to run the program. Open “InvaderMain” in Eclipse and run it as usual. If your program crashes, make sure that the above resource files are copied into the right directory.

* Click “Start” to start the action
* Click “Fire” to shoot at the alien
* Click “Quit” to quit the program

**Improvements:**

You should be able to make the following improvements to the program without too much trouble:

* Change the alien picture: find two pictures that can alternate and use them to define a new look for the alien. All you need to do is overwrite the existing jpg images.
* Add some background music: find a suitable MP3 sound file and copy it to the project directory. Create a new AudioClip variable in the Arena class and load that file. Then start playing the background music as soon as you click start. Make sure to loop the background music (you should be able to figure that out, I think)
* Add a ‘Restart’ button so that the game can be restarted. You need to add a new button to the Controller, activate it like the other buttons, then make sure it calls the method ‘reset’ in InvaderWindow (which you need to create, of course, to call the method ‘reset’ in the Arena class, which you also have to create, but this time the method should restore yUFO, yUFO, speedUFO, and yBullet to their original values. Then it should simply call the ‘start’ method to start another game).