The main difference between the main classes and less important classes is that the less important classes aren’t necessary required to play the game, you can’t play the game without them.

**Main classes**

*These classes are required to play the game.*

Default package:

*Application.java –* This class is called when the program starts and is creating a new Controller.

Controller package:

*Collision.java –* This class calculates the collisions and contains two methods: ‘collide’ and ‘collDist’. The first method calculates if the player collides with the enemy. The second method calculates the distance between the enemy and the player.

*Controller.java –* This class basically connects the Model package and View package. In other words, this class connects the Graphical User Interface with the back-end algorithms.

*Keylistener.java –* This class handles the keyboard inputs. It has two methods: ‘movePlayerKeyListener’ and ‘calcDir’. The first method only checks if there is a certain key being pressed and sets the Boolean variable of that key to true. The second method processes the Booleans and sets the String variable of the direction to the right direction.

Model package:

*BoundsPro.java –* This class calculates, translates and scales the boundaries of the units, so we can use it in the Collision class.

*Enemy.java -* This class is a subclass of the Unit class and creates a random enemy, chosen from the list of sprites.

*JSonRW.java –* This class reads and writes JSon files. These files are database.json, for the highscores and Boundaries.json, for the information of the boundaries of the several different enemies.

*Player.java –* This class is a subclass of the Unit class and creates the player from the player sprite.

*Unit.java –* This class is the superclass of the Enemy and Player class and can’t be instantiated. Next to that, this class contains the most properties the Player and Enemy have in common, such as the boundaries, direction, height, width, etc.

View package:

*Frame.java –* This class is the actual game window and triggers if you run the application.

*GamePanel.java -* This class is the GamePanel and triggers when you play the actual game.

*StartPanel.java -* This class displays the StartPanel when you start the application.

**Less important classes**

*These classes aren’t necessary required to play the game.*

Controller package:

*None*

Model package:

*None*

View package:

*CommonPanel.java –* This classcontains the methods for displaying the panels, which only contain text. These panels are being triggered by the about button and the instructions button.

*HighScorePanel.java -* This class shows the High Scores when you press the button in the start panel, which says high scores.

*Sound.java -* This class creates a separate thread, which displays the sound of the game, when you start the application.