Spawn enemies in random places while keeping them inside the walls of the map.

* There’s an array of enemies. When the screen is opened it constructs the enemies with a random X and Y coordinate.

Moving the player towards the mouse

* The angle between the player’s position and the mouse are calculated using the Math.atan2() function

Health Bar scratch: testing out the player health bar.

* Learned to work with progress bars
* The health bar is a progress bar that does down with the player’s health. It then draws text on the bar showing the player’s health over their max health. It’s later drawn using Scene2D in the screen’s render function.

Online multiplayer

* The server is made in Javascript using the Node.JS library. Communication between the server and the client is done using Web Sockets with the Socket.IO library.
* The connectSocket() function connects the websocket to the server.
* The configSocketEvents() function tells the socket object what to do when it receives various events from the server.
* In the update() function, the client will send the player’s position to the server which allows the server to update their position on all other connected players’ screens.
* On the server side, the server’s socket will broadcast different events such as player connection. The server has an array which holds data of all connected players such as their ID and position. The server also listens for the “playerMoved” event which updates the position of the player in the array and sends the updated position to all other connected players.

Armour

* The player has an armour value. When the player takes damage some of the damage is reduced by the armour value.