

## **User story**

**US11 - Player can save the current game into a file**

## **How we achieved.**

There is a method in the Terrain class called saveMap() that will save the characters in a binary File, and the map in a Text file.

**US12 - Player can load a previous game from a file**

[-] There is a method called loadMap() that will load those binary Files and text files that are saved using saveMap() method.

**US13 - Game manages a ranking with the best 10 scores**

[-] There is a class called rankingUser that manages the users from the ranking having a char Array for their names and an int for their scores, there is another class called ranking that saves those rankingUsers in a binary file and sort them depending on their score. There are three important methods called AddandSortList(&rankingUser), loadRanking() and SaveRanking().

**US14 - Player can check the current ranking from the game menu**

[-] There is an Scene in the scene list saved for the ranking scene, that can be activated by clicking it's collider in the main scene, this internally will call the loadRanking() method, and will take the information from the rankingUser array and print it in the screen by order.

**US15 - Game implement smart behaviors**

[-] There is a class called Almap that saves all the information of the characters positions in an array that has the same size as the Map size. The most noteworthy method is the searchTheBestOption() that'll Return the position of the array that fits with the best options to get to the goal, in this case the base. It's important to say that Enemies cannot touch the water.

[-] The player's name is requested using a graphical window

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[-] Use graphs for implementing a FMS AND a Pathfinding strategy

We use a Pathfinding strategy and a FMS for the enemy.

[-] The sorting algorithm used is the Quicksort or the heap sort

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