Dangerous Ocean

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How to play (basics) (1)

First you will be asked to enter your account, with it you will be able to keep everything you have done even after quitting the game.

So at first start by creating a new account, to do that just enter the name of your new account and say yes when it ask you if you really want to create a new account.

After having create our new account we are now inside the game and its menu.

The menu is a really important part of the game because with it you will be able to upgrade your character by upgrade some of its stat like life, dexterity or strength, but also bought equipment which will help you to dive further and further.

Its also the place where you will see your data and the record of your previous achievement.

How to play (basics) (2)

You can now after having upgrade your character start a game to do that just click on the game button.

You have now enter the game. You can see your amazing game character and move thanks to the arrow. When you go a bit in the depth of the ocean you can see some rock and other thing we can find in the depth of the sea.

But be careful of some of theme who are dangerous and can kill you like shark for example.

And because if its just the ocean who is dangerous it would be too easier so earth mother have done it so human can't live under water because we can't get the access to oxygen and if we miss oxygen we die.

How to play (basics) (3)

So this explain the different slider next and above our character the two next are respectively the oxygen amount we have and the second one help to now how much time is left before we run off of oxygen after the last breath (apnea time).

To remind you but if you don't have any tank equipment equip you won't have any oxygen at first so you will need to depend only on your apnea time.

When you die you will sea some message and after pressing space key you will be back to the menu scene where you can upgrade your character

If you want to quit or disconnect you just have to press the escape key and then click on the corresponding button.

How does the game work

the account process.

First we need to have a class which will contain all of our data like our stat strength, life, dexterity but also our money, our level, the equipment we have and use and our achievement.

After it we need to have a method to convert it to a string which match with the split pattern of JSON file.

When this is done we just have to create a Save method and Load method for each we can use the built-in method to create a new .json file which will contain our class or to extract our class from an existing json file.

To ensure the security of our file the file is store on some really well hide directory in our pc.

How does the game work

the upgrading process

To do that in our player class we have some function which help us increase the effect of our stat and their cost.

And In the Equipment class there is some method to update the cost and upgrade which is override in each of the subclass like weapon or tank in order to modify the effect of the equipment but with different effect for each type of equipment.

How does the game work

gaming process [loading level]

The level are not already load when we start the game because this game is infinite.

So each time the player pass a cap the game will generate the next part of the level.

To do that we are expanding our borders and background.

After we can calculate the new surface available and its coordinate and generating a random number of obstacle and a certain number of coin in this surface.

After it we generate the shark sentinel of this part of the level.

And everything is done. But to ensure to block doesn't collide, the block after its creation run a script to verify its surrounding and move a little out of the block he collide with if collision occurred.

How does the game work

gaming process [moving player]

We will start by assigning the value of our player to the character like speed oxygen or the apnea time.

After this is done the script PlayerInGame, which is the one use to move our player, will do the update function.

In this function we will start by checking if our player has die if not it will decrease is oxygen and apnea if he is neither at the surface or in a cave.

And after we go to the part to make our player move.

So first we will get the entry of our player like up, left, right and down arrow.

If he press some it will change their value on our Vector3.

After there are some line to make it so that our player rotate in the direction he is moving and our camera continue to display it without rotating because our camera is under our player in the hierarchy and so if our player move so camera will also move.

But because of this if our player rotate the camera rotate too.

And then we can make our player move by using the AddForce of Rigidbody we are then using the previous dir vector * the speed * whether we are augmenting our speed, and the ForceMode.Impulse

How does the game work

gaming process [collecting money]

By some really easy way when the player collide with the coins he will then gain the value of the coin which is of a minimum value of 1 and will depend of whether he collide with other coins during the creation of the surface like.

I create a coin where there is already a coin so I destroy one of the two but I will increase the value of the other one.

How does the game work
gaming process [moving shark]

Each shark when create will get the limit of its surface so that he will stay in his surface.

When he is not moving its mean that he has no destination so we calculate a new one inside its surface. And thanks to the NavMesh the sharks will find its path to this point.

But if he detect a player inside his range of detection he will then start chasing the player until either the player die, he die or the player get out of range.

If the player is out of range then its means that he doesn't have any destination so we will calculate a new one.