To create multiple boats we’ll write a function called **showBoats**(). This function will help us create multiple boats.

Let’s start with creating an empty boat array where we’ll be storing our boat objects so that we can access them later

So we want to create a new boat when there is no boat in the array. And we only want to create 4 boats at a time on the screen.

For this we’ll write an if-else condition.

If the boat array has less than 4 or the position of any boat is less than that of the width, then we want to create a new boat to keep playing continuously. Else we’ll create an initial boat to make the if condition true and to keep playing.

Writing if-else condition to create multiple boats in the sketch.js

Here we first have an outer if-else condition. In this condition, we check if there are boats more than 0 in the boats array. Else we create a new boat in the else condition and add it in the boats array. At the start the length of the boats array will always be 0 so the if condition won’t be satisfied and the code will move to else condition creating a new boat. When this new boat is created the if condition will become true and the code inside the brackets will be executed. Now that we have a boat we want to add velocity to that boat. So to get the boats from the boats array we’ll use a for loop as later on we’ll be adding many boats to the boats array. Inside this loop, we’ll use another if condition to check whether there is a boat at that index. If there is a boat then using the **Matter.Body.setVelocity**() function set the velocity to that particular boat and display the boat.

Inside the first if condition we have another if condition which checks if the last element inside the boats array is a boat body and not any undefined body OR the position of the boat is lesser than the width-300 , we are using width-300 as we want the next boat to appear only when the previous boat has covered a certain distance. As there is only one boat in the array, we’ll see only one boat on the screen and we want to create the second boat when the first boat covers some distance on the screen so that it looks like the second boat is following the first one. To do this in the above loop we’ll use another if condition which will check if the boat on the screen has crossed 300 distance from the total width of the screen.

If the boat has crossed the distance then inside that if condition we:-

● Declare the positions array and in the array have some values which will be the position for the boat to enter the screen.

● Declare a position variable and use the random() function on the positions array to get a random value from it.

● Declare a boat variable and using the boat class create a new boat and pass the position that we got earlier

● Then finally push the boat in the boats array. After this our boat will be created continuously when a boat crosses a width-300 distance.

To avoid any unexpected errors or exceptions we’ll add another condition to check if the boat is undefined then also create the boat and push in the boats array so that we have a new boat to continue with the game.

Call the showBoats() function in the draw() function