1B) describe further change you would make if you could change its behaviour. Discuss your reasoning for making these changes

Change 1: I would move the list creation outside of the loop. There is no need to recreate this list when it can be cached and edited. This would make the loop more performant and easier to read.

Change 2: I would make each racer its own object with its own components. This will allow for each racer to have access to its own collision/position etc and allow for far simpler modification in the future. Although this may cause issues due to the huge number of racers this can be overcome by using a few techniques such as applying Level of Detail/Render culling and even simplifying the operations the object performs when the object is far away from the player.

Change 3: I would make use of unity’s collision detection over creating a bespoke version myself. As each racer is its own object it would only need to check its own collision with an object and apply its own destroy function. This would also make the code more readable as each racer would only be concerned about itself.

Change 4: There would be no need to run a loop to get the racers that are still alive as each racer would be doing their own collision check and destroying themselves when appropriate. If you need to create a list of alive racers for another reason then you could get all objects in the scene with a set tag or name.