Iteration, basic programming constructs and loops | Part C

So now let's look at some more code. This is the program that I was talking about earlier – the number guessing game. I've actually told the computer program what number I am guessing which is 1 2 3 - one hundred and twenty three – this is the one that the user has got to guess. I have a variable for your guess that's the one that they are going to enter, and the code for the loop is down here.

So, we are going to ask them to enter a number and the user has got to guess what it is. The your guess has a little symbol next to it which is an exclamation mark followed by an equals and this means not equal to so the whole while loop is while your guess is not equal to the secret number, in other words they haven't guessed it right then we are going to keep on asking them for another number to guess until they do get it right. If they do get it right, so your guess equals secret number then we are going to congratulate them on guessing it correctly. So, let's run this program. We've got to guess the number, now you have to imagine that I don't know what the secret number is so I'm going to guess, so first of all I'm going to guess 10 but I've got quite a big range 0 to 1000 so it's going to take me quite a few guesses. Err no I didn't get it right that time, so how about 45, no that's not right either - err, 67, no that's not right. How about 100, no not right, erm 245, no that's not right. 700 – that's not right either.

I'm getting a bit bored with this game now and in fact this program would just continue because there is absolutely nothing to stop this loop from running, so while I keep getting the guess wrong then the program will just keep on asking me for another guess. So what we really need to do is find some way of changing the code so that the loop will stop and this is your challenge. You can look at this code and see how could I actually stop this loop – you might want to add in some sophistication, for example a scoring system, maybe I'm only allowed 5 go's and if I get it wrong each time then I lose the game. So see if you can think of some different ways that you could make this program more interesting and a bit less boring.