

Duel Game

You will have two characters. Each character will start with 100 health, a random defense power (between 10 and 15), and a random attack power (between 15 and 20).

In addition to this, each can have a special ability that has a 25% chance of activation. It is decided randomly what ability the character has. The abilities are as follows:

1. If the character is attacked, it will take only half damage
2. If the character attacks, it will attack with 50% more power
3. If an attack takes the character to under 30 health, it will heal itself by 5

You can either choose one ability at the start of the game, that the character will have throughout the entire game, or on each round a new ability can be taken.

The task is to simulate a fight between the characters.

1. It will be selected randomly which character starts the fight
2. Round 1: The selected character attacks the other one by its attack power. The attacked character will decrease the attack by its defense power and then this value will be subtracted from its health.
3. The roles are reversed and the other character attacks now. The fight will go on until one character gets to 0 health.

The messages printed by the game should be something like:

Character 1: power = xx, defense = xx

Character 2: power = xx, defense = xx

Round 1:

Character 1 attacks

Character 2 activates ability 1

Character 2 has 95 health

Round 2:

Character 2 attacks

No ability activated

Character 1 has now 90 health

And so on until only one character remains with health above 0.

At the end the message: "Character 1/2 won" will be printed

My recommendation is to write this in NodeJs with TypeScript, but any other language is ok.