

Task 1: Turtles vs Rabbits Olympics

Turtles vs Rabbits Olympics: Nx100m race (where $N \geq 2$)

- Each team will use at least 2 runners
- When a runner has completed or exceeded 100m the next athlete should start from where the previous finished
- Rabbits:
 - Run at steady speed: 10m/s
 - Can not receive any speed boost from steroids before they start a run
- Turtles:
 - Run at a steady speed of 1m/s
 - Can receive a steroid speed boost before a run
 - Steroid speed boost is added to their constant speed for the duration of the 100m they run
 - Steroid boost is random: $20 * \text{Math.random}()$
- Each second(or whenever you want as long as you can justify it) you need to evaluate if a runner is at 100m or more and either change runner or finish the race for that team if Nx100m total has been reached.
- When a team finishes you print out the name of the last runner and the total time in seconds they achieve the Nx100m
- Show that on a webpage – either the progress or the final result
- Total files: 1 html file, 1 js file. All javascript should be in its own file for me to test

Code development is individual.

Deadline for both tasks: 01/Mar/2022

A hint of copy one another will invalidate all results.

In order to receive a “Pass” one should show excellent use of:

- Objects and prototyping
- Functional programming
- Architecture type
- Performance
- Scalability
- Attention to detail
- [optional]CSS/Animations(extra points or not)
- Correct results– all above requirements are met

Presentation of tasks and code review is individual. Can be done upon task completion by setting up an 2h long meeting with me at their convenience. Individual feedback will be provided as well as a final feedback for all team members.

Task 1 is required in order to progress to task 2.

Colleagues are required to justify why task 1 is a requirement for task 2 in their opinion and what both tasks were aiming for in terms of knowledge.