

CPSC 1045: Intro to Web Programming  
Spring 2022  
Project Proposal

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- You can work individually or in a group of 2

### Hand In:

Submit your proposal by **Friday, March 18th** in the Project Proposal assignment folder.

**Please answer the following questions:**

Q1. Briefly describe the game you are going to implement. I should be able to get a good sense of how your game will be played, as well as what the objectives and goals of the game are.

This game is a simple First-Person Shooting game like the aim practice arena.

There are 3 different stages (3 difficulties) and one just measure the time, so total of 4 modes.

For stages:

1. Easy level – 10 targets (which user has to shoot on) are on the screen for 3 seconds
2. Medium level – 15 targets are on the screen for 2 seconds.
3. Hard level – 20 targets are on the screen for 1 seconds but there are some gold targets (which they cannot hit, if they do, they lose this level)
4. Practice mode – 20 targets are on the screen for 0.5 seconds, at the end of the game, user gets report about their average reaction time, targets they hit, and total time taken.

Q2. Briefly describe the concepts that we have covered in the course so far that you will apply to your game and how you will apply them.

For example, if you are making a shooting game, you should describe how you will draw images on canvas, and use keyboard events to shoot at enemies, etc.

On Canvas –

1. Targets image
2. Gun image
3. Background color
4. Gunfire image
5. Text
6. Create
  - A. Menu page
  - B. Stage page
  - C. Practice page
  - D. Report page

Event Handler –

1. MouseEvent
  - A. Onclick to track where user shoot
    - i. offsetX, offsetY
2. Onload (when page is loaded, game is automatically on the menu page)

Animation –

1. Use of setInterval() and clearInterval()
  - A. to make target to appear and disappear
  - B. to count user's reaction time
  - C. to count overall time it takes

Conditional Execution –

1. use of if-else to make decisions

Q3. List all websites or other games that you will be drawing inspiration from. This should include any tutorials or online links that your game will be similar to.

1. <https://humanbenchmark.com/>
  - A. Provides "Aim Trainer" and "Reaction Time" which gives reaction time
2. <https://app.3daimtrainer.com/quick-play>
  - A. General UI/UX in 3D