



Assignment-3: “Catch Me If You Can”

CSC 2610

[15 course points]

Why?

The goal of this assignment is to test and improve your knowledge and skills in using the popular Bootstrap and jQuery libraries. It also attempts to teach you to get familiar with building jQuery animations using DOM events.

The Objective

Your objective is to use HTML, CSS and JavaScript to build a game that we are going to call: “Catch Me If You Can”. For this, you need to create a web page that will roughly look and function as below:



The rules

- 1) Unlike Assignment-2, for this one, you are required to use both Bootstrap and jQuery libraries. However, no other CSS, or JS libraries/frameworks are allowed to be used. Your final submission files should only consist of HTML, CSS and JavaScript files.
- 2) There should be a Bootstrap menu bar at the top that should provide 3 options to change the image in the web page: A cat, a dog and of course, a tiger.
- 3) The animal image should be able to animate along the “perimeter” of the web page continuously evading the mouse pointer. The animations should be triggered whenever the mouse pointer attempts to move towards the animal. I will let you figure out the exact algorithm for this. The main objective is that the mouse pointer should never be able to reach the animals image no matter from which direction the user tries to reach it.

Hint: A very simple way to do this is to always keep the image’s position at a certain “delta” with respect to the position of the pointer.



- 4) The name of the game should appear in the middle of the web page as shown in the figure above.
- 5) The game might of course fail on mobile devices as there is no “mouse move” even there. This is fine.
- 6) The game should work well on all screen sizes on desktop devices. I will test your game by adjusting the screen size on my desktop when evaluating your submissions.
- 7) **Early start / office hour credit:** You will be awarded 50% of the assignment’s score, if you simply make some early progress in solving the assignment and reach out to the instructor for either feedback or with a question. You can reach out to the instructor via e-mail / during their office hours / after-class. *You will only get this credit if you ask the instructor within the first one week of this assignment’s announcement.* This bonus will be removed if you end up scoring more than 50% in your final submission. So, if you are confident that you will score more than 50%, you can ignore this rule.

Note: The above rule is made to encourage struggling students to make use of the instructor’s time. It is also an attempt to get students to stop procrastinating.

- 8) **AI Assistance:** As usual, you are allowed to seek passive assistance via internet posts or active assistance via AI tools such as ChatGPT or Bard. You are requested to please cite all helpful internet posts. Also, please document all your conversations with AI tools and include them in your submissions.

ChatGPT has a very helpful share button at the top right corner of its menu if you would like to use it. In case, you do this, kindly do not share these chats with any of your peers. This will devalue the educational quality of these assignments and make them unusable in future iterations of the course.



- 9) **Submission:** Please compress all submission files and upload them to Moodle before the due date. You should also record a short video (< 30 seconds) demonstrating the working of your web page. You can use products such as Loom - <https://www.loom.com/> for free video recording on the cloud and provide a link to it in your submission. (Thanks @Brandon Walton for this suggestion).

I will watch the recording as well as attempt to open the main HTML file in my browser in the process of evaluating your submission.