

Lab 15 – Finding the Mouse Position on Canvas

Objectives

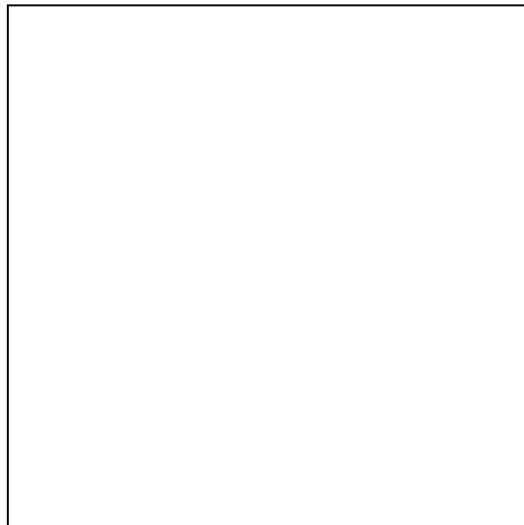
- Writing Javascript functions to find the position of the mouse on the Canvas

What to do in Lab?

1. Log in to the computer. If you are reading this, you must have done this already.
2. Create CPSC1045\Lab15 folder
3. Download the file Lab15.zip from D2L to your system. Unzip the contents into your Lab15 folder.
4. Open the included HTML document named **lab15.html** in Google Chrome by either double clicking (if Chrome is the default browser) or by right clicking on it in your file explorer and then selecting Open With -> Google Chrome. The document looks as follows:

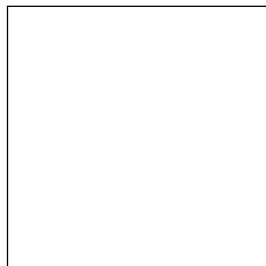
Lab 15 – Finding the Mouse Position on Canvas

Part 1: Mouse Position in Realtime



X:
Y:

Part 2: Finding the Square



Find Me!

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5. Now open the **lab15.js** file using your favorite HTML editor such as Brackets or VS Code, so that you can write the code. You need to work with only this file.

Part 1 (5 marks)

6. Write a function named **updatePosition()** which takes an event from the first canvas (`id = "surface"`):
- The function gets called repeatedly while you are moving the mouse over the canvas
 - The function displays the x and y coordinates of the mouse position within the `<label>` tags in real time while the mouse is moving over the Canvas.

Part 2 (5 marks)

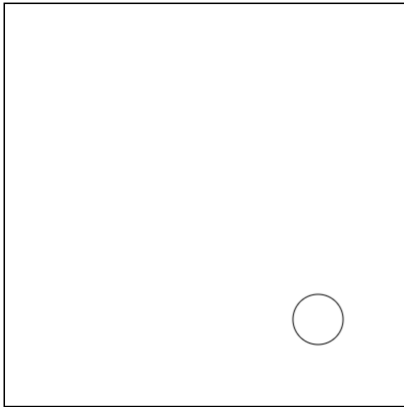
7. Write an anonymous function which takes an event from the second canvas (`id = "canvas1"`):
- If the user clicks anywhere on the canvas (except the square in the center), the function gets called and displays the x and y coordinates of the mouse position in the `<h3 id="output">` tag.
 - If the user clicks on the square in the center, the function displays an alert with the message "You clicked inside the square!".

Hint: You should create the canvas first as well as create the square in the center. This is because the canvas has to exist before we can enter the anonymous function when the canvas is clicked.

The finished document should look as follows:

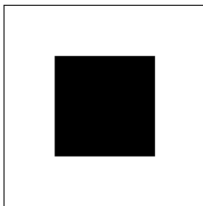
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Part 1: Mouse Position in Realtime



X:312
Y:314

Part 2: Finding the Square



X: 83 Y: 117

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This page says

You clicked inside the square!

OK

Submission: What to hand in

Zip the folder Lab15 which contains your source code (the edited file **lab15.html** and the **lab15.js** file you created) and upload it to D2L.

Submission: When to hand in

At the end of the lab period.