

Lab 14 – Walking in a Winter Wonderland

Objectives

- Writing advanced Javascript functions to draw 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\Lab14 folder
3. Download the file Lab14.zip from D2L to your system. Unzip the contents into your Lab14 folder.
4. Open the included HTML document named **lab14.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:

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The Task



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5. Now open the **lab14.js** file using your favorite HTML editor such as Brackets or VS Code, so that you can edit the code.

The Task (10 marks)

6. Modify the lab14.js file and add the following features to the snowman (1.5 marks each **a–e**):

- a) Add two red buttons to his upper torso
- b) Move the sun to the upper right hand corner of the canvas
- c) Display your name in the upper left corner of the canvas
Refer to: http://www.w3schools.com/html/html5_canvas.asp for how to **Draw Text**
- d) Make the snowman frown instead of smile
- e) Add an orange triangle nose to his face.
- f) **(2.5 marks):** Add an HTML button to the page that calls a function that shifts the entire snowman 20 pixels to the right every time the button is clicked.
Hints: Add a global variable **shift** which you can then manipulate using a function such as **shiftSnowman()**. You can call the functions **drawBackground()** and **drawSnowman()** whenever this function is invoked. You should also use save, translate, and restore to accomplish this task.

The finished document should look as follows:

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The Task



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Submission: What to hand in

Zip the folder Lab14 which contains your source code (the edited file **lab14.html** and the **lab14.js** file you created) and upload it to D2L.

Submission: When to hand in

At the end of the lab period.