Lab 1 blank

Instructions:

The following lab is due **10 minutes *before* the start of your next class with me. Please use your given name + preferred name if they are different:**

Your full name : _____

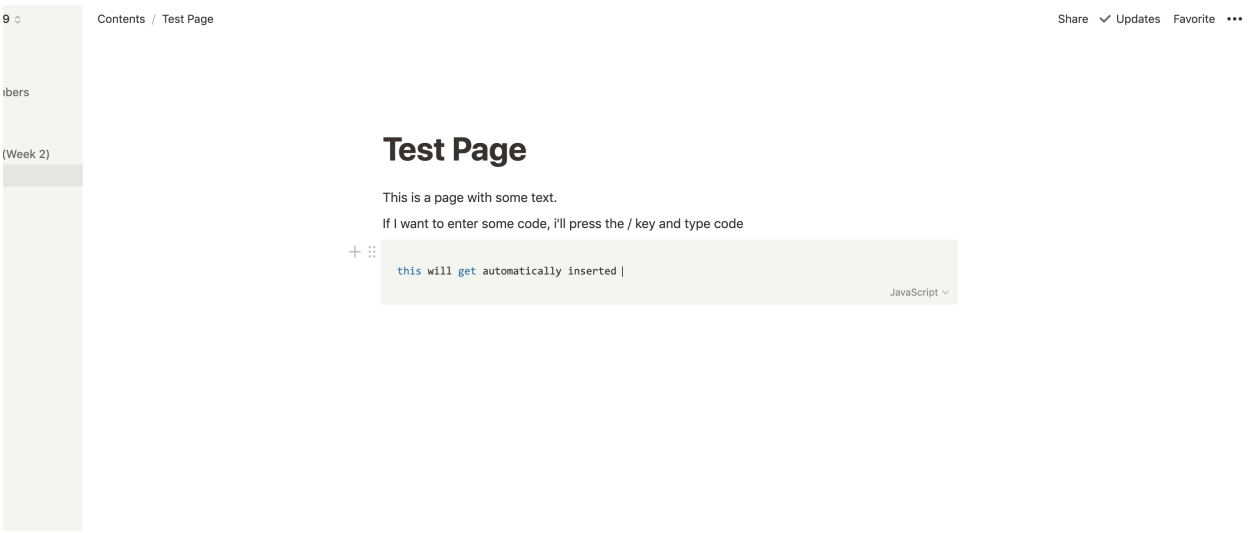
Your Student Number: _____

Submission Process:

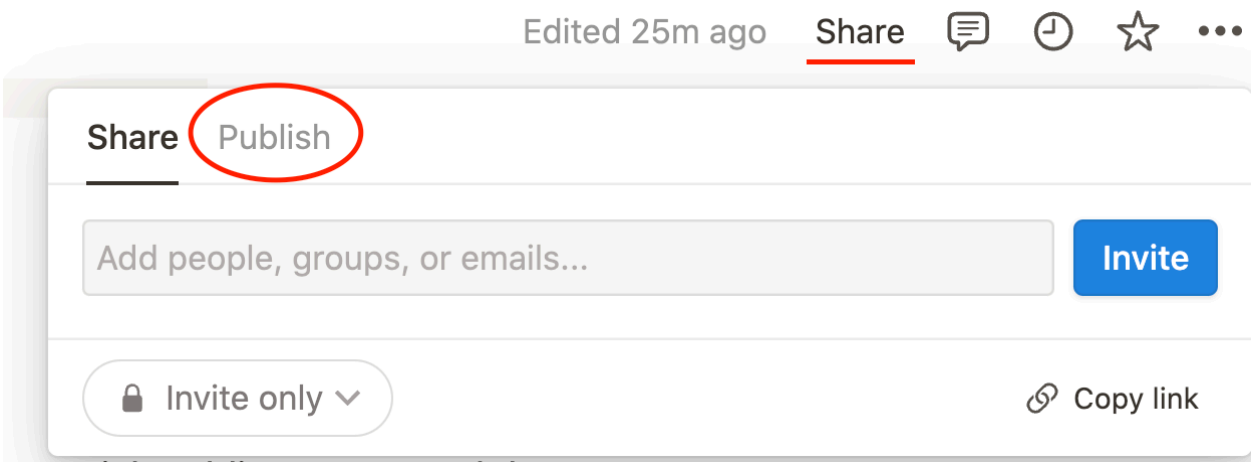
Notion is a tool which allows you to easily paste code and submit it to me. Go to https://www.notion.so/ to make an account, and then once logged into notion, create a page which you will use to answer the questions in this challenge.

You will see an area in the top right corner that says "Duplicate". Click this.

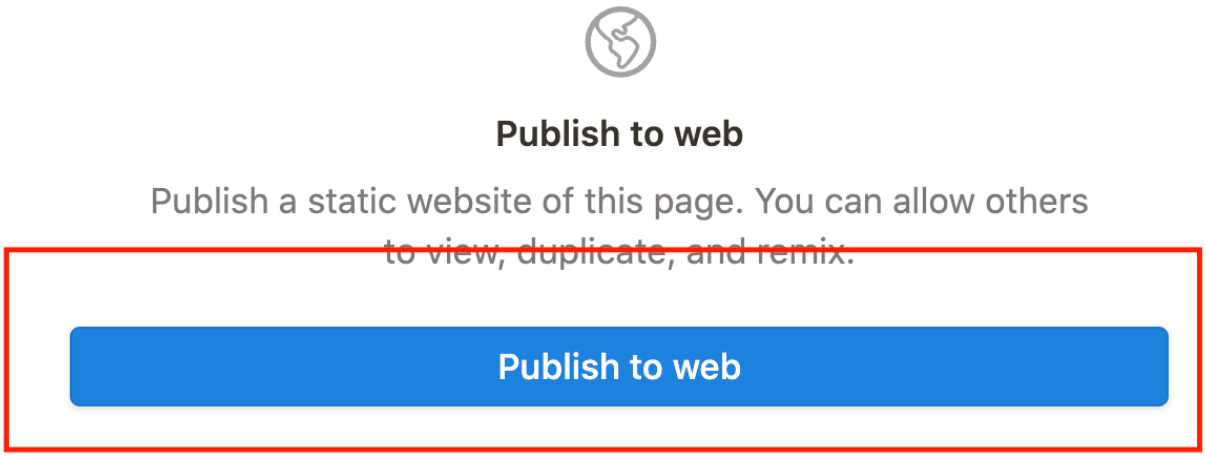
You will now have a copy of the Lab instructions within your Notion account. Fill in the answers to the questions.



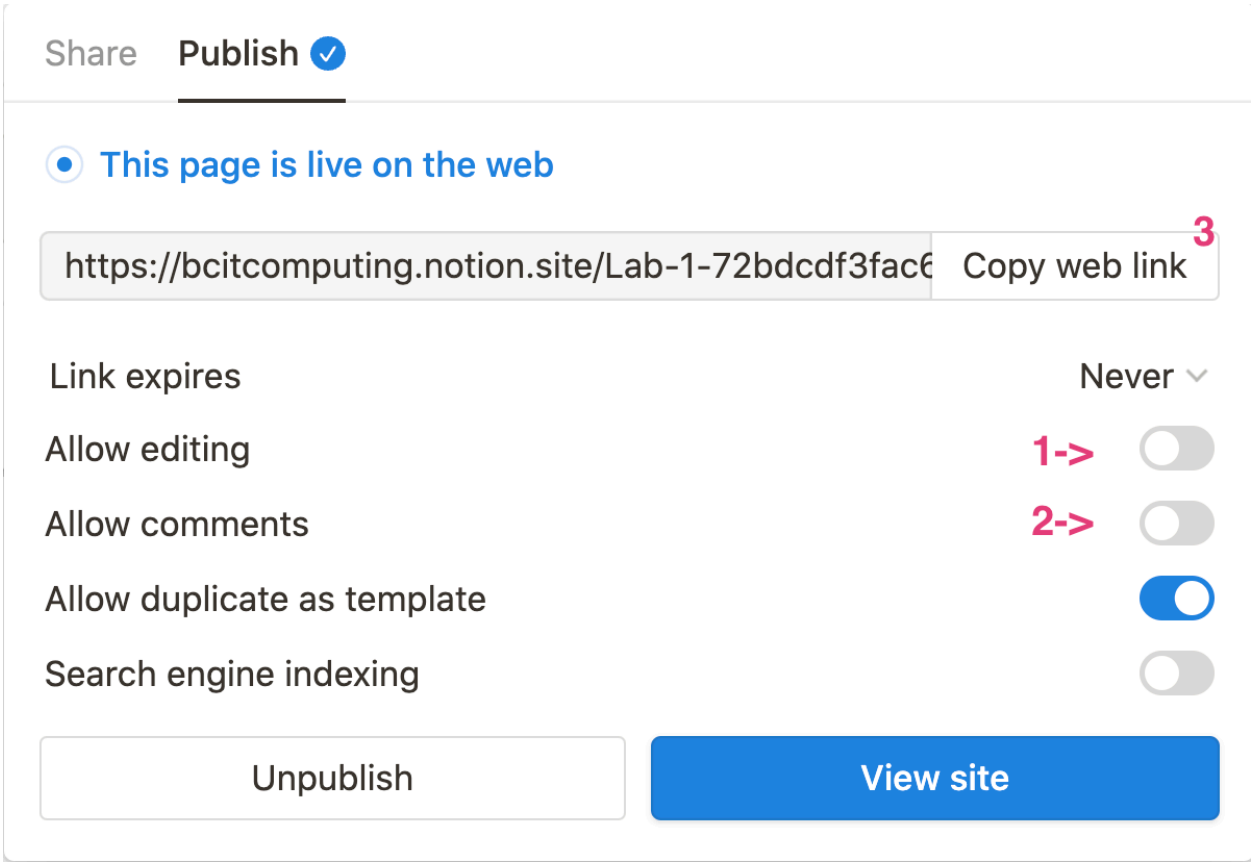
After you are ready, click the "share" button in the top right corner. Change tabs to the Publish Tab.



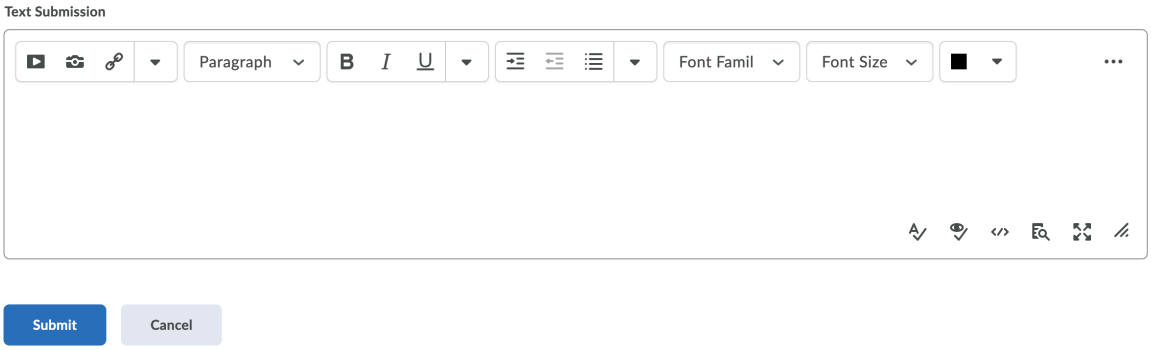
Click the **Publish to web** button.



Next, turn on **Allow editing & Allow comments. Then click Copy web link**:



Lastly, go to the **Activities > Assignments** section of learning hub, click the assignment, and then paste the notion link you copied into the text box. Click Submit.



Failing to follow these instructions will result in no credit being awarded for the lab.

1. Insert in the box below the code required to show how many CPUs your machine has. I expect the code to return a single Integer value when executed. Hint: It requires the "os" module.

/ 1 marks

Answer Here

2. I have a Macbook Pro 16 inch laptop with the following specs: /2 marks

When I type the command from question 1 into a script.js file and run it with node script.js, the output I got was 12. Given that my specs in the image above claim I have only 6-Cores, how is this possible? Provide a screenshot from the Node.js documentation that proves your answer, and paste the screenshot below. Then provide a brief explaination in the “Answer here” box below.

Answer Here

3. What is the difference between Javascript, Node.js, and Ecmascript?

/1 mark

Answer here

4. Every programming language needs what key thing in order to be able to execute?

/2 marks

Answer here

5. What is the difference between using the Node REPL vs executing things with the node <filename.js> command? /2 marks

Answer Here

6. Explain how process.argv can be used in Node.

/2 marks

Answer Here

7. Create a function called wordPosition which takes a list of words, and returns the indices where each word shows up in the list. Take a look at the comment below to see how the output should look. The order of the keys in the dictionary does not matter, but the overall structure should match. The values for each key are a list of integers (indices). Make sure to use modern javascript syntax.

Note: If you are suspected of using AI tools to answer this question, you *may be asked* during the following class to explain your answer.

```
const wordPosition = (words) ⇒ {
// your code here
```

```
}

const input = [
  "buy",
  "it",
  "use",
  "it",
  "break",
  "it",
  "fix",
  "it",
  "trash",
  "it",
  "change",
  "it",
  "mail",
  "upgrade",
  "it",
];

const output = wordPosition(input);

/*
Output should look like so:
{
  break: [ 4 ],
  buy: [ 0 ],
  change: [10],
  fix: [ 6 ],
  it:  [1, 3, 5, 7, 9, 11, 14],
  mail: [ 12 ],
  trash: [ 8 ],
  upgrade: [ 13 ],
  use: [ 2 ],
}
```

```
*/
```