

Web Application Engineering (CSCI – 4135)

Midterm Exam (Spring 2024)

Due by: April 2nd, 2024

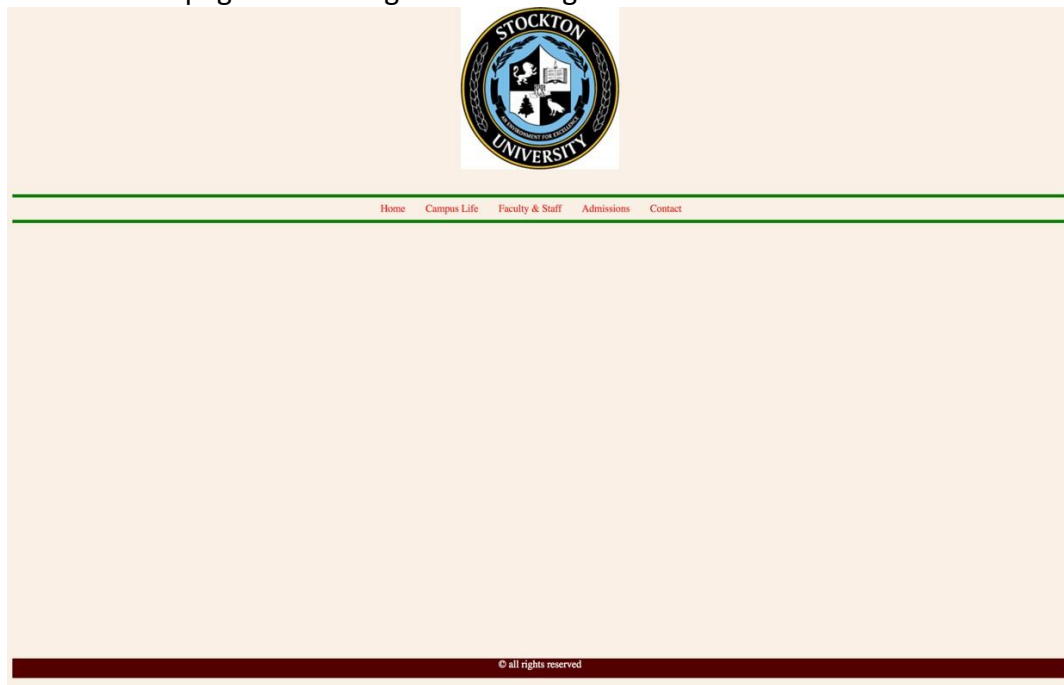
Note: Please follow below instructions carefully:

- You **can** refer to the textbooks/class notes or any materials posted on blackboard (lecture slides, solutions to class works/assignments etc.).
 - You **can** ask me questions for clarification by email or through zoom.
 - Please upload your code so that I can execute them to verify the output.
 - If you need additional time, you can email me.
 - Attempting one question is mandatory. You can attempt any additional question(s) to earn extracredit.
-

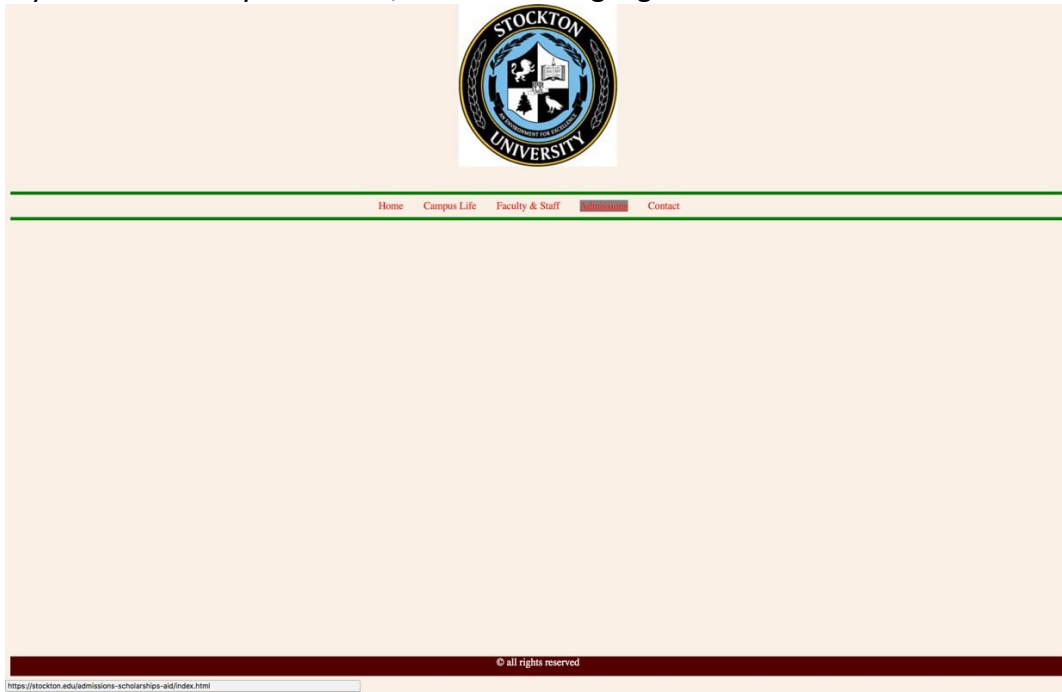
Attempt any one question.

*Use only **JavaScript** as your scripting language, wherever it is necessary. You will also need to use **Bootstrap** classes/navigation bars for some problems.*

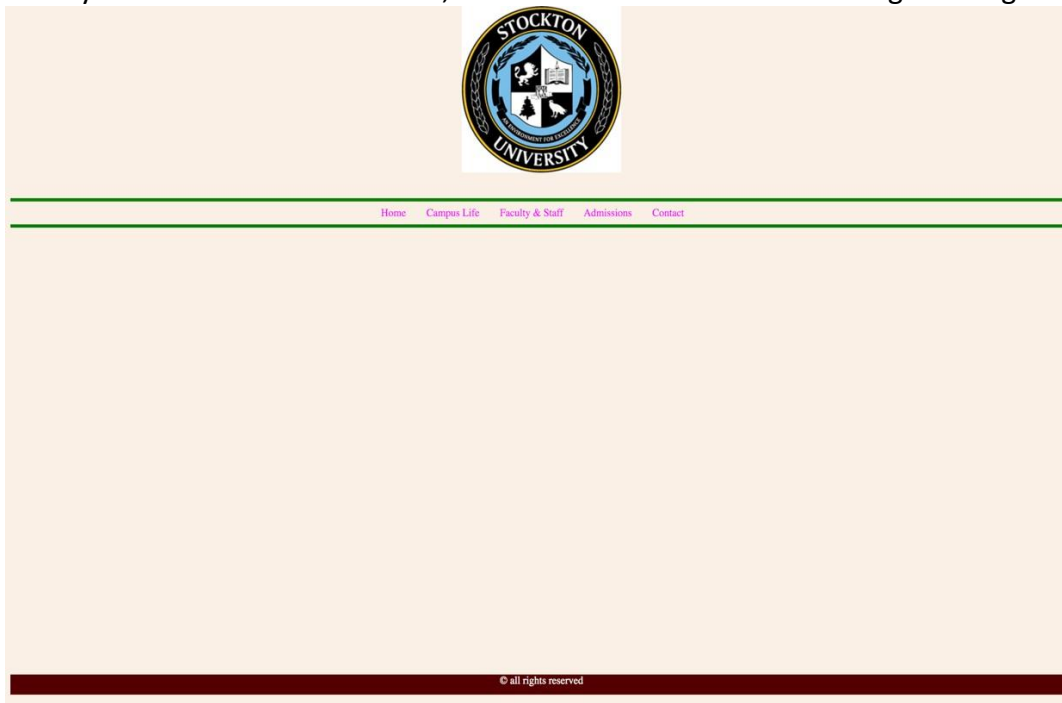
1. Create a web page resembling the following:



If you hover on any of the link, it should be highlighted and underlined as shown below:

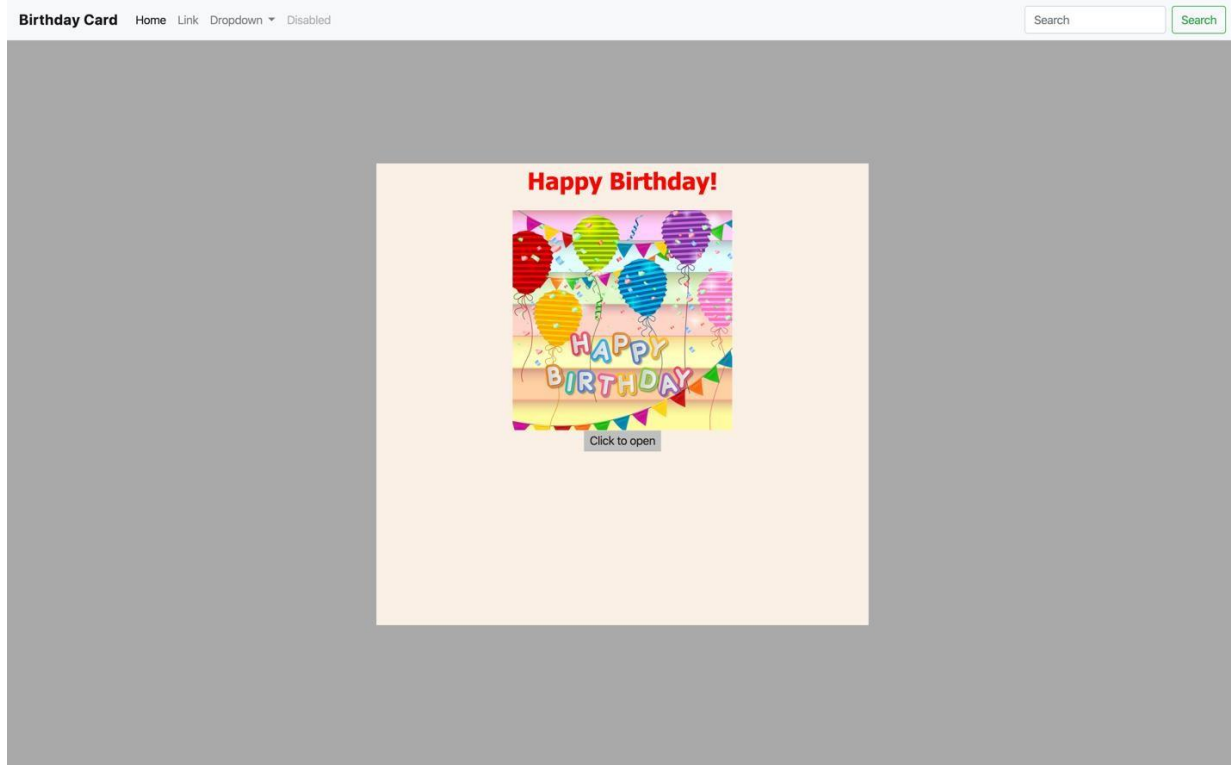


Once you have visited all the links, the color of the links should change to magenta:

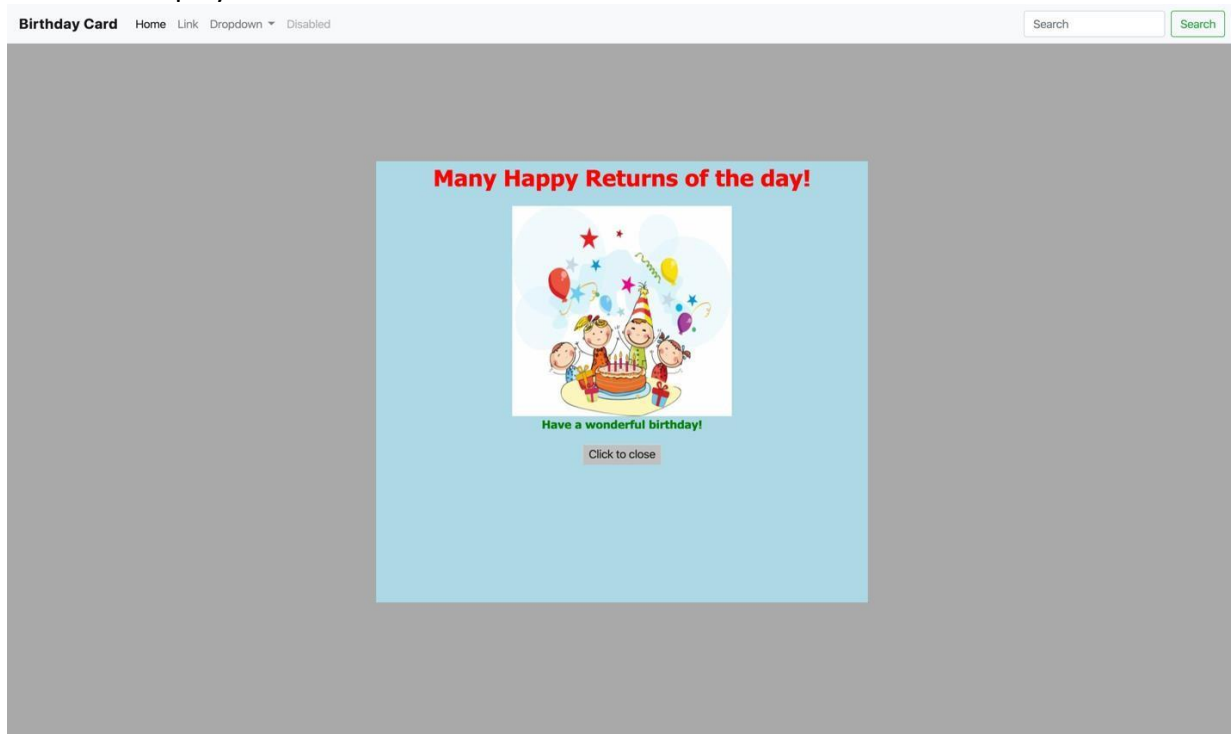


Note: Clicking on any of the link should take you to the corresponding web page on Stockton portal.

2. Create a web page that displays a birthday card as follows:



- Once we click on the button “**Click to open**”, the front page should be flipped gently to display the inside of the card:



- Once we click on “**Click to close**”, we should go back to the front page of the card.

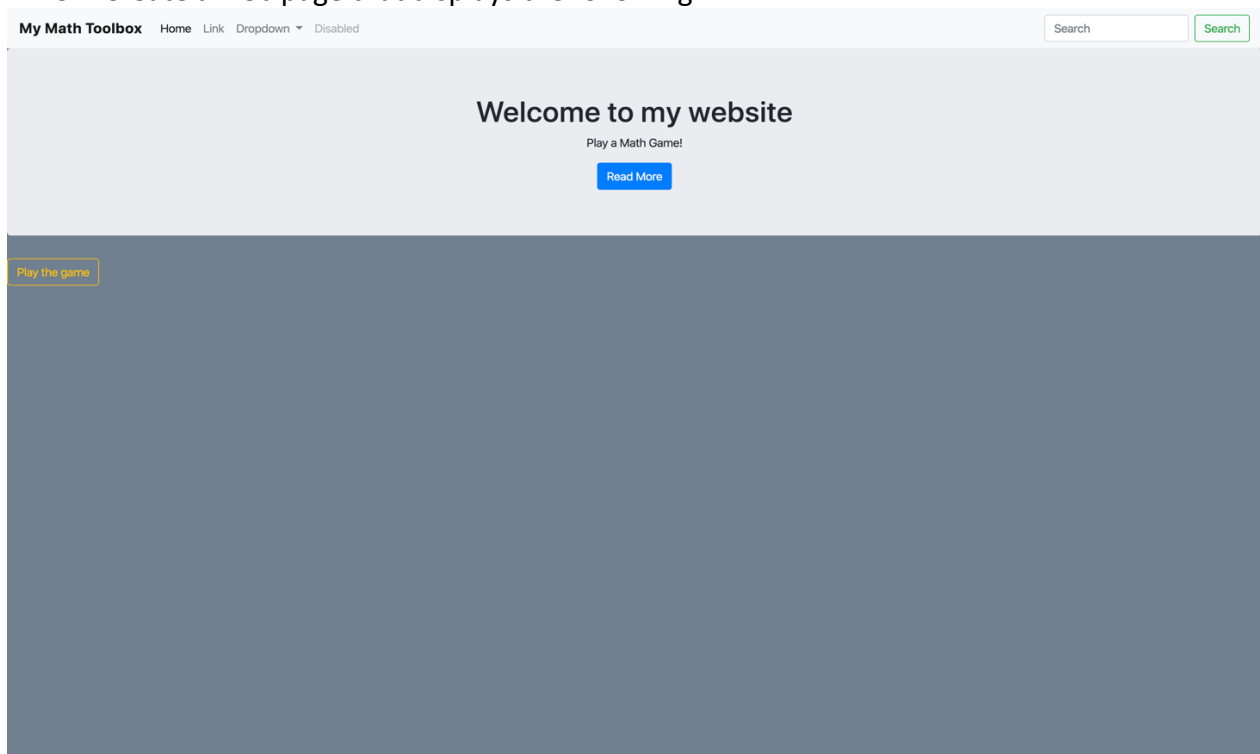
[**Hint:** To flip the front page of the card, use the CSS **transform** property. You can define two functions `open_card()` and `close_card()` and call them in response to the **onclick** event of the respective buttons:

```
function open_card() {  
    document.getElementById('outside').className = 'open-  
card';  
}
```

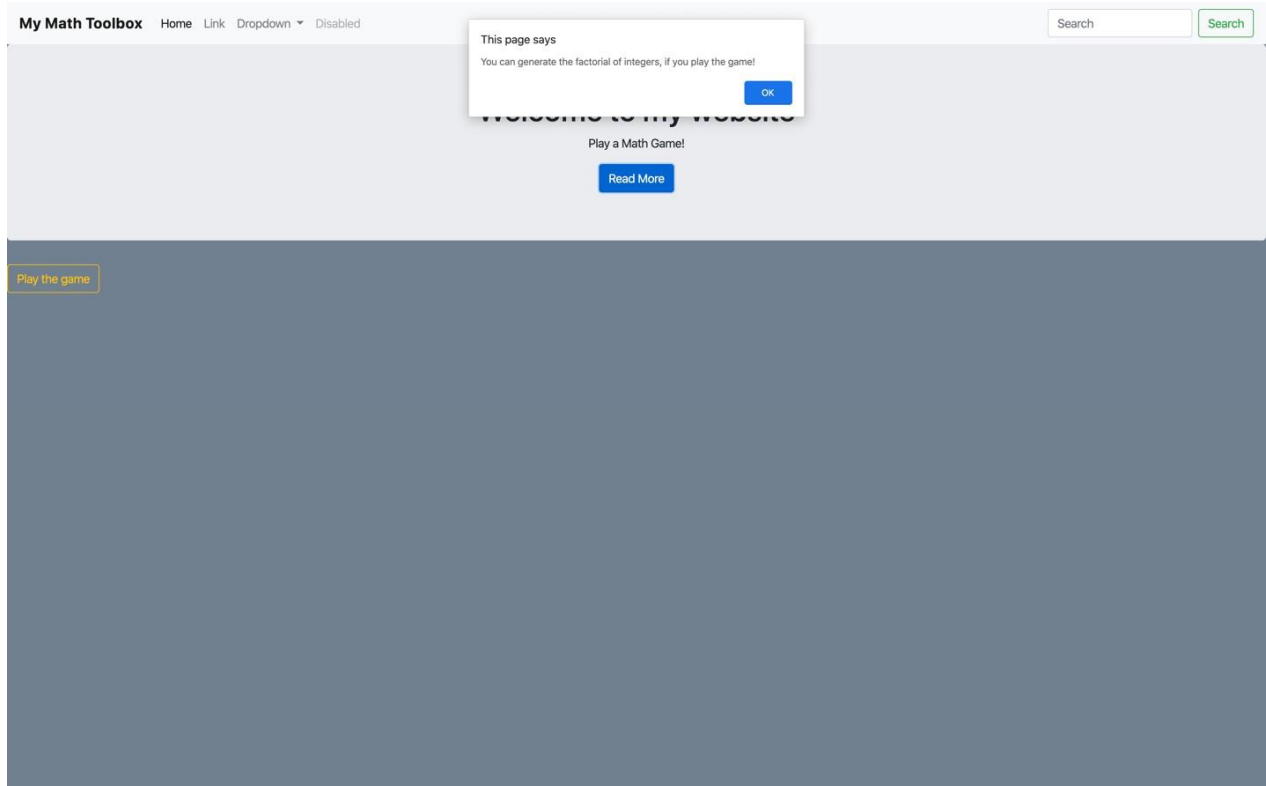
```
function close_card() {  
    document.getElementById('outside').className = '';  
}
```

where 'outside' is the <div> of the front page of the card. Then define the appropriate classes in a stylesheet.]

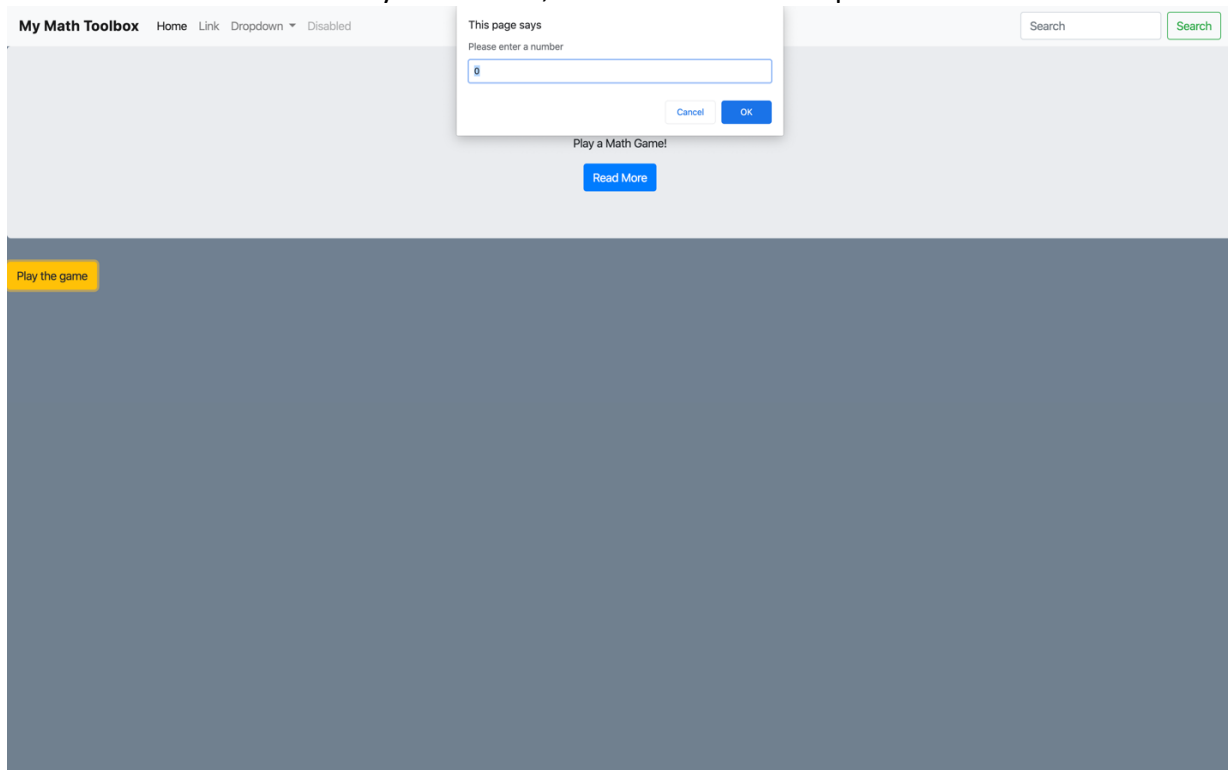
3. Create a web page that displays the following:



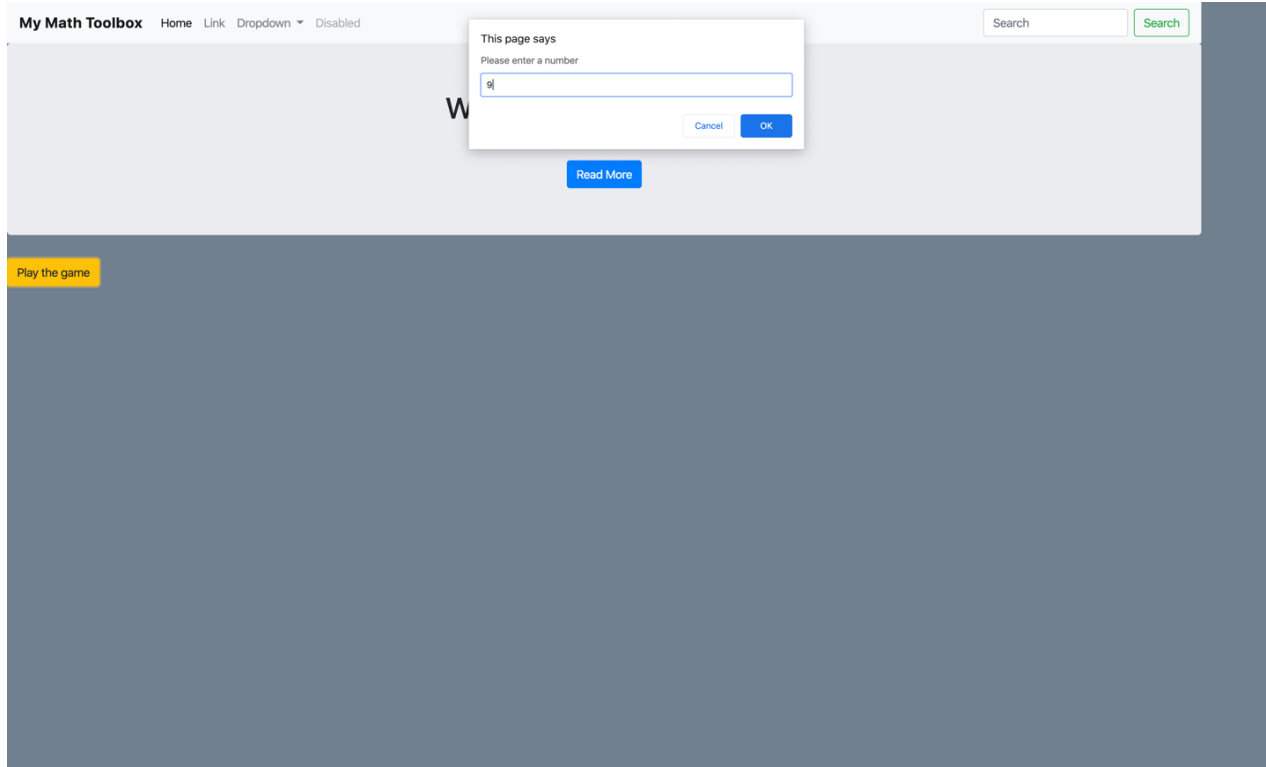
- Once we click on “Read More”, we should get an alert box:



- Once we click on “Play the Game”, it should ask for an input:



- We provide a number as input and press OK



- Once we press OK, it should generate the following output:

Below are the factorials of all the numbers from 1 to 9

Number	Factorial
1!	1
2!	2
3!	6
4!	24
5!	120
6!	720
7!	5040
8!	40320
9!	362880