Deliverables :

1. Create a separate js file to write the code. Name it as Lab3_P1.js , Lab3_P2.js

2. Link the js file to the html file . Name it as Lab3_P1.html , Lab3_P2.html

3. Submit the html and js files in the submission

4. Download the template of the Lab report and paste the screen shot of html and javascript code and the respective output in the template and submit the report.

5. Note that you will be submitting the following :

a) Lab3_P1.html , Lab3_P1.js ,
b) Lab3_P2.html , Lab3_P2.js
c) Lab report

Total Point : 50

Refer the rubric to follow the grade distribution.

Program 1

Given two arrays of usernames and passwords as follow :
usernames = ["smith", "tron", "ace", "ladyj", "anon"];
passwords = ["qwerty", "EndOfLine", "year1942", "ladyj123", "PASSWORD"];

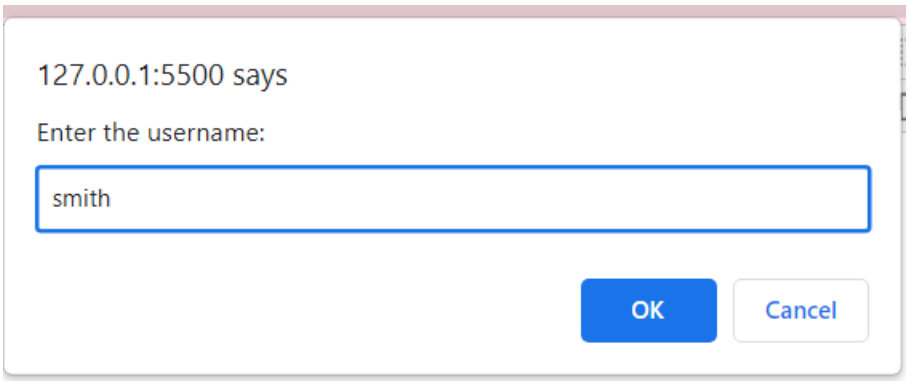
Write a javascript program:
To search the usernames arrays for the given entered username
To search the passwords array for the given entered password.
Print it on console if the username entered and password entered is found or not found.

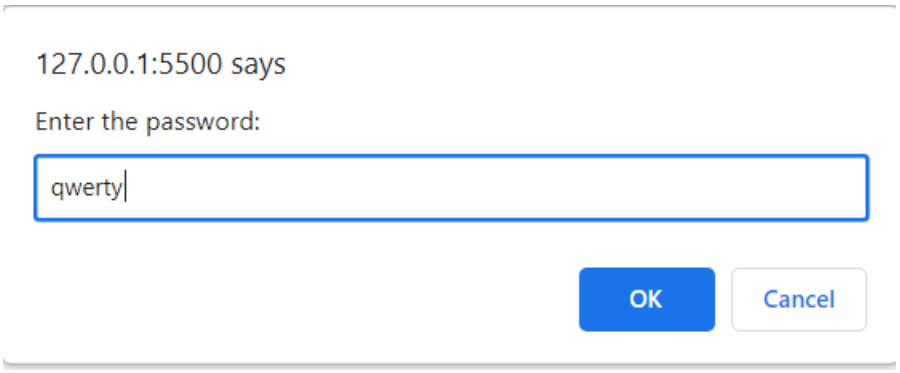
Use indexOf () function to implement this program.

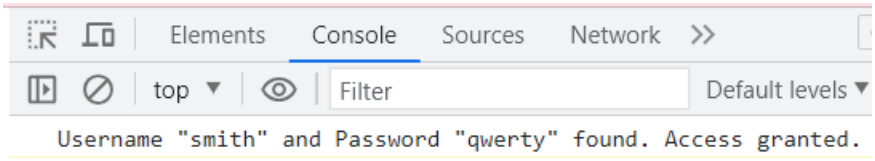
NOTE :
1. Use of indexOf() function is explained in lesson , " Looping through the Arrays" posted in module.
2. Also , the indexOf() function returns -1 if the element is not found in the array

Find the sample run below :

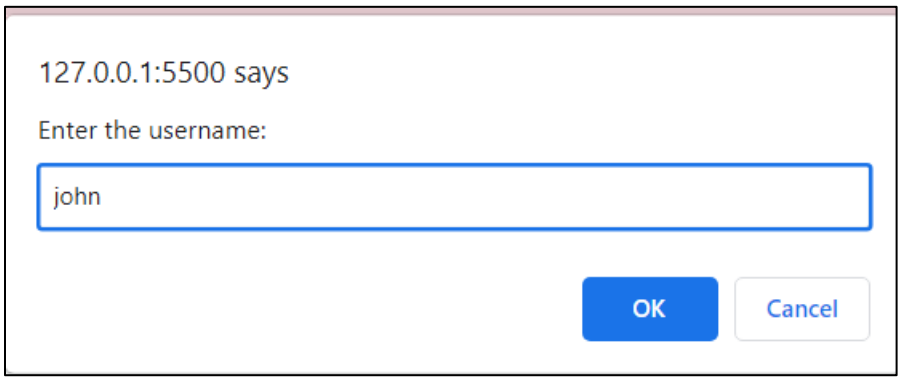
Sample run 1 :



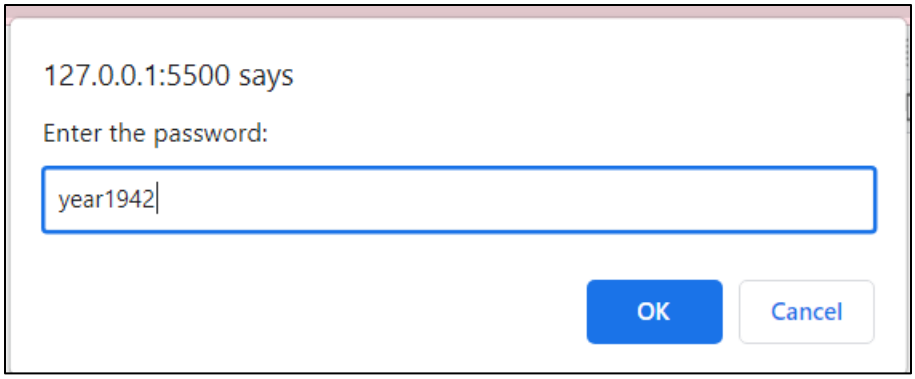




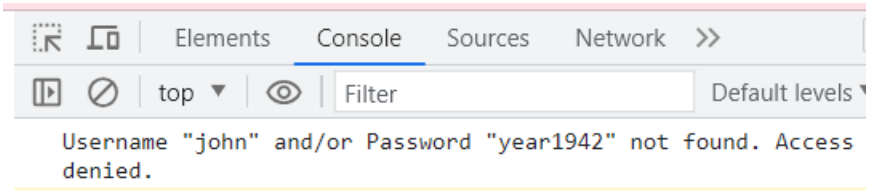
Sample Run 2 :



John is not in the array



Output :



Program 2 :

Write a program that calculates the amount of money a person would earn over a period of time if his or her salary is one penny the first day, two pennies the second day, and continues to double each day. The program should ask the user for the number of days. Display a table showing what the salary was for each day, and then show the total pay at the end of the period. The output should be displayed in a dollar amount, not the number of pennies.

Below is the sample run:

Enter the number of days: 5

Day Pennies

---

1 $ 0.01

2 $ 0.02

3 $ 0.04

4 $ 0.08

5 $ 0.16

The total salary for 5 days is: $ 0.31

Hint :

You can implement the logic of the following program to solve this problem:

Example 1: Sum of Natural Numbers Using for Loop

```
// program to display the sum of natural numbers

// take input from the user
const number = parseInt(prompt('Enter a positive integer: '));

let sum = 0;

// looping from i = 1 to number
// in each iteration, i is increased by 1
for (let i = 1; i <= number; i++) {
    sum += i;
}

console.log('The sum of natural numbers:', sum);
```

Output

```
Enter a positive integer: 100
The sum of natural numbers: 5050
```

Example 2: Sum of Natural Numbers Using while Loop

```
// program to display the sum of natural numbers

// take input from the user
const number = parseInt(prompt('Enter a positive integer: '));

let sum = 0, i = 1;

// looping from i = 1 to number
while(i <= number) {
    sum += i;
    i++;
}

console.log('The sum of natural numbers:', sum);
```

Output

```
Enter a positive integer: 100
The sum of natural numbers: 5050
```

Find the Rubric below :

Criteria	Points
Functionality (50 points)	

Criteria	Points
1. User Input Handling	10
2. Use of `indexOf()` Function	15
3. Handling of Cases	10
4. Console Output	15
Code Quality (6 points)	
5. Code Structure	2
6. Comments	2
7. Code Formatting	2

Criteria	Points
Sample Run and Output (4 points)	
8 . Correctly pasted the output in the lab report	2
10. Output Matches Expected	2
Total (50 points) – Each Question is 25 points	