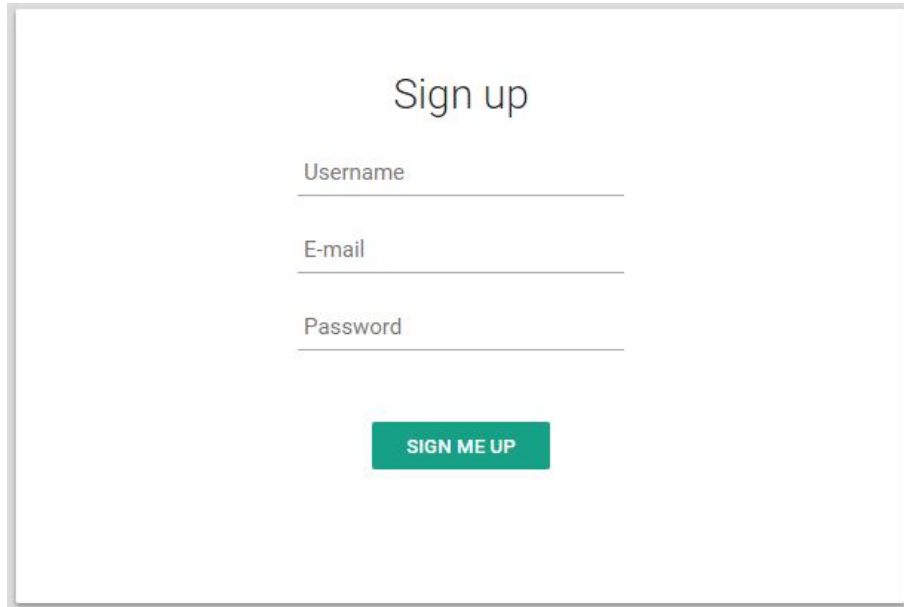


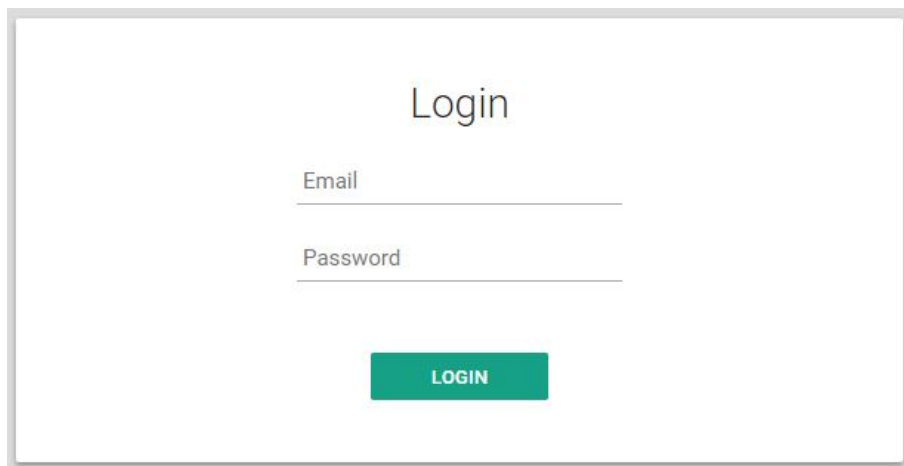
## 4.4 Simulation Results

### 4.4.1 Login and Sign up Pages



A screenshot of a web form titled "Sign up". The form is centered on a white background. It contains three input fields: "Username", "E-mail", and "Password", each with a horizontal line below the label. Below these fields is a green rectangular button with the text "SIGN ME UP" in white, uppercase letters.

Figure 4.1: Sign up page



A screenshot of a web form titled "Login". The form is centered on a white background. It contains two input fields: "Email" and "Password", each with a horizontal line below the label. Below these fields is a green rectangular button with the text "LOGIN" in white, uppercase letters.

Figure 4.2: Login page

## 4.4.2 C++ Language Sample Example

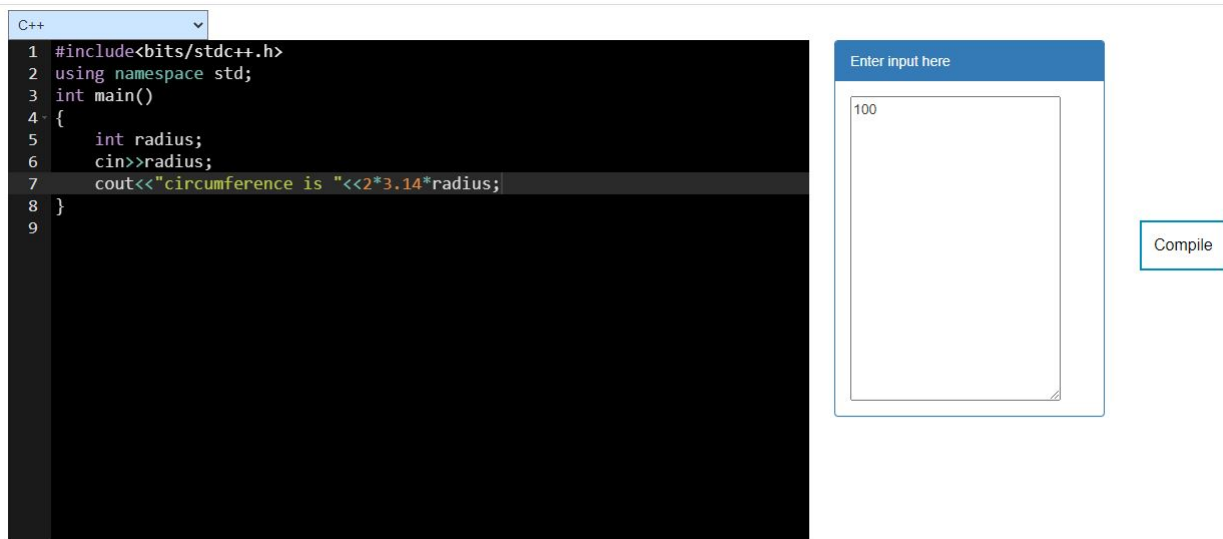


Figure 4.3: C++ code

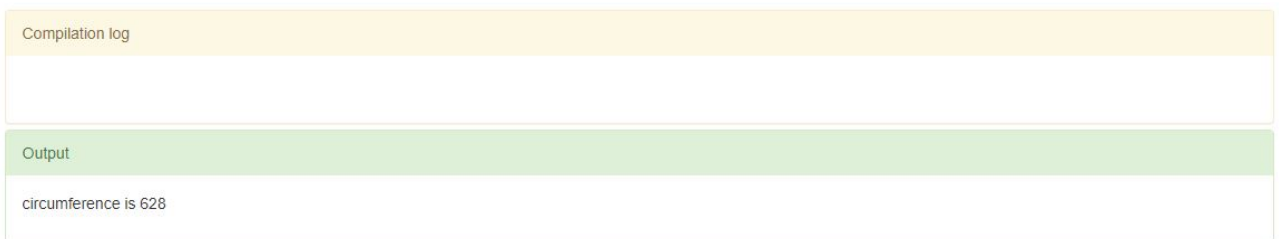


Figure 4.4: C++ code output

### 4.4.3 Python Language Sample Example

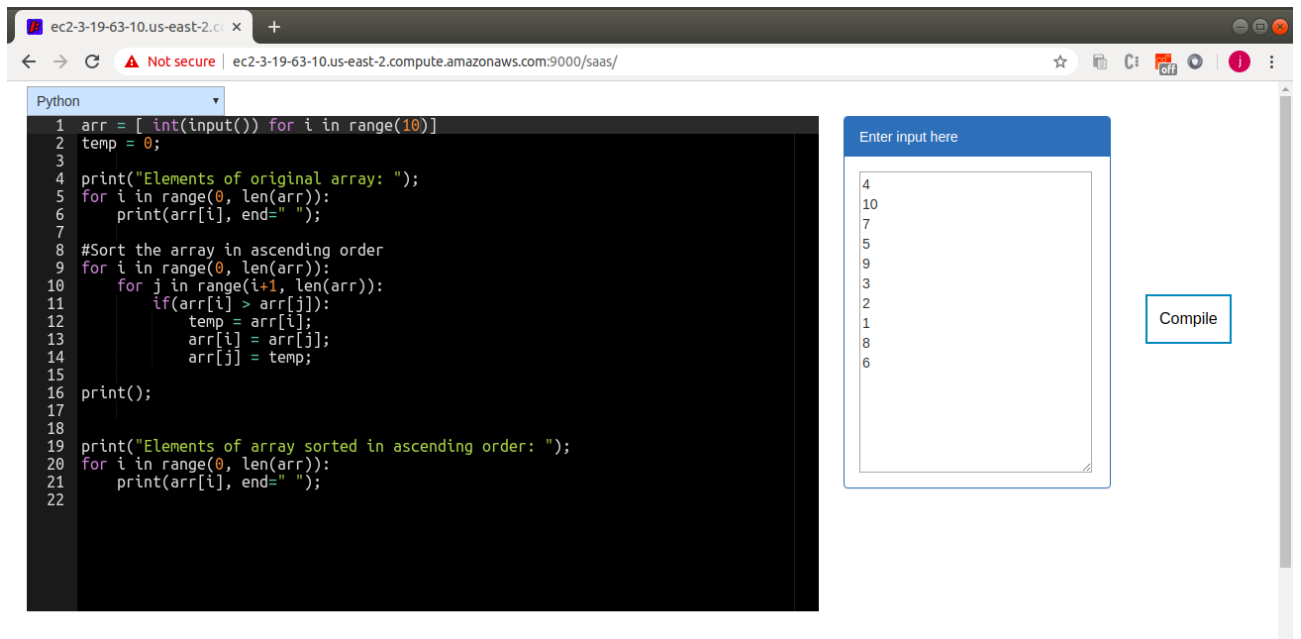


Figure 4.5: Python code

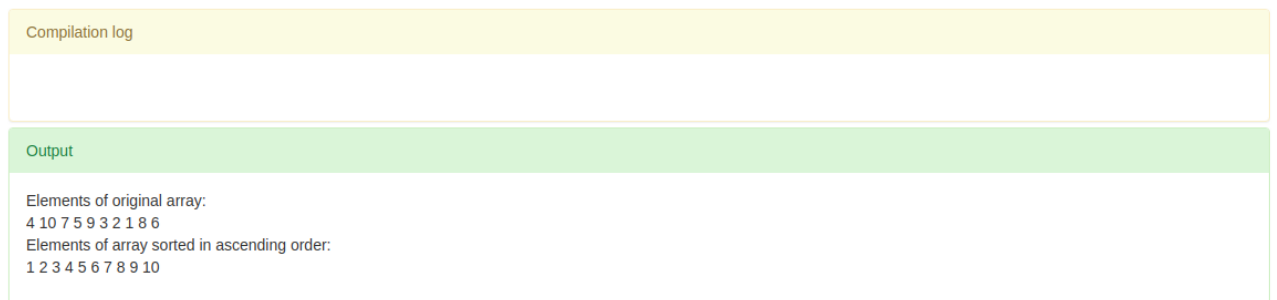
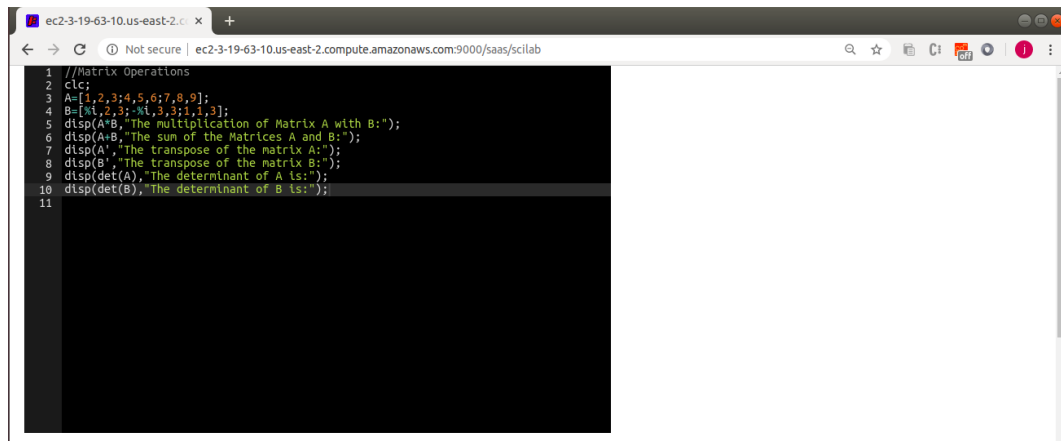


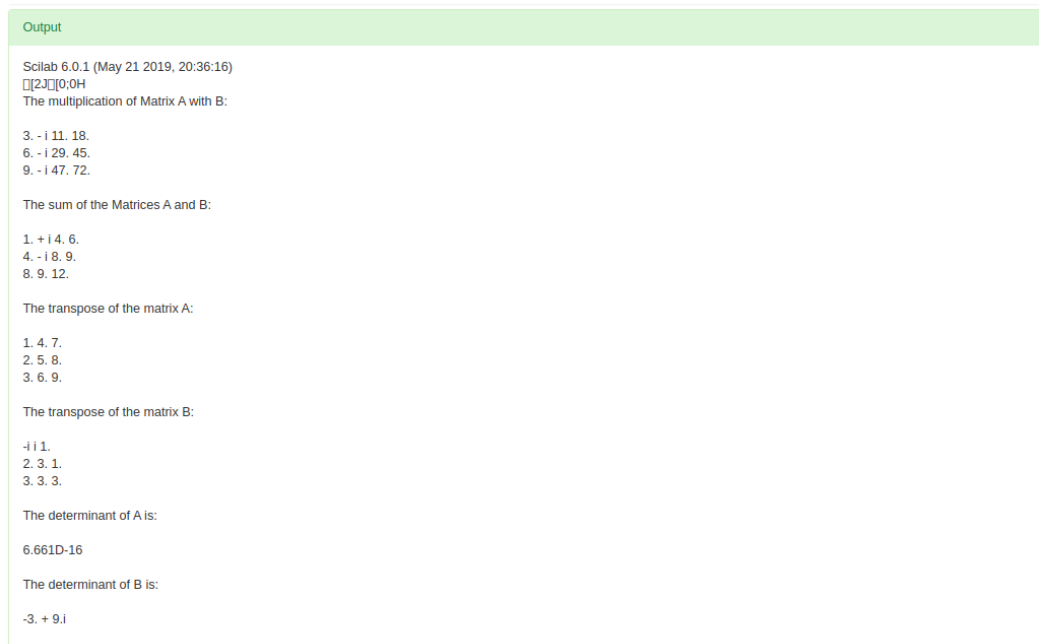
Figure 4.6: Python code output

## 4.4.4 Scilab Example



```
1 //Matrix Operations
2 clc;
3 A=[1,2,3;4,5,6;7,8,9];
4 B=[%i,2,3;%i,3,3;1,1,3];
5 disp(A*B,"The multiplication of Matrix A with B:");
6 disp(A+B,"The sum of the Matrices A and B:");
7 disp(A',"The transpose of the matrix A:");
8 disp(B',"The transpose of the matrix B:");
9 disp(det(A),"The determinant of A is:");
10 disp(det(B),"The determinant of B is:");
11
```

Figure 4.7: Scilab code



```
Output

Scilab 6.0.1 (May 21 2019, 20:36:16)
[] [2x3] 0.0H
The multiplication of Matrix A with B:

3. - i 11. 18.
6. - i 29. 45.
9. - i 47. 72.

The sum of the Matrices A and B:

1. + i 4. 6.
4. - i 8. 9.
8. 9. 12.

The transpose of the matrix A:

1. 4. 7.
2. 5. 8.
3. 6. 9.

The transpose of the matrix B:

- i 1.
2. 3. 1.
3. 3. 3.

The determinant of A is:

6.661D-16

The determinant of B is:

-3. + 9.i
```

Figure 4.8: Scilab code output

#### 4.4.5 Scilab Example for Sine Wave

```
← → ↻ ⚠ Not secure | ec2-3-19-63-10.us-east-2.compute.amazonaws.com:9000/saas/scilab
1 x=0:0.1:10;
2 y=sin(x);
3 plot(x,y);
```

Figure 4.9: Sine wave code



Figure 4.10: Sine wave code output

## 4.4.6 Scilab Example for Subplot

```
1 clf();
2 t=[1 1 1 1
3 2 3 4 5
4 3 4 5 6
5 4 5 6 7];
6
7 subplot(221)
8 plot(t,sin(t)); // plots sin(t) versus t column by column this time
9 xtitle('sin(t) versus t')
10 subplot(222)
11 plot(t,sin(t)')
12 xtitle('sin(t)' versus t')
13 subplot(223)
14 plot(t',sin(t))
15 a=gca();
16 a.data_bounds=[0 -1;7 1]; // to see the vertical line hidden by the y axis
17 xtitle('sin(t) versus t''')
18 subplot(224)
19 plot(t',sin(t)')
20 xtitle('sin(t)' versus t''');
21
```

Figure 4.11: Subplot code

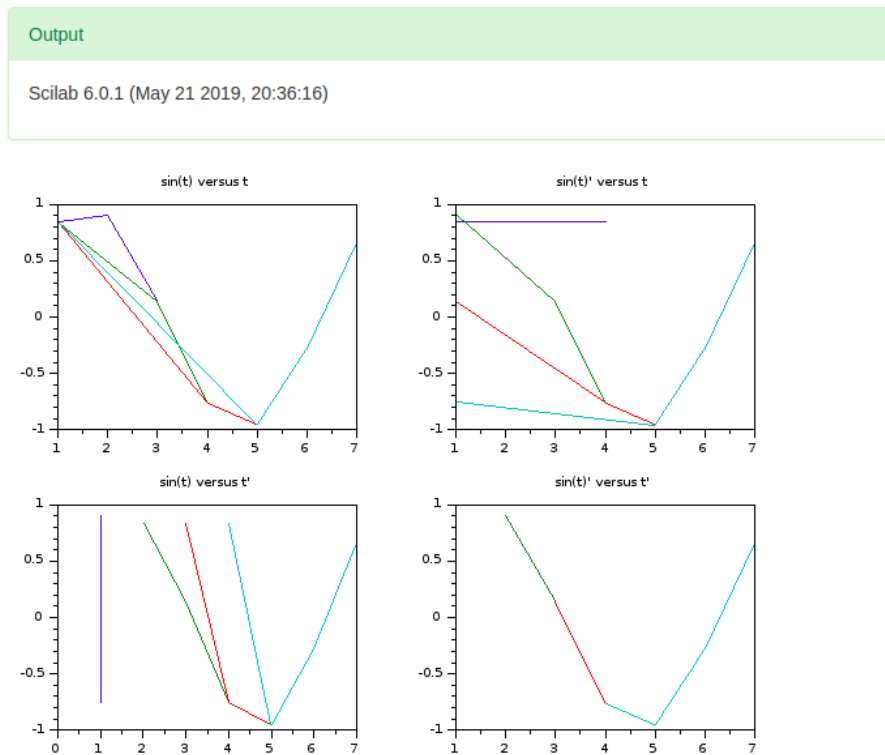


Figure 4.12: Subplot code output

#### 4.4.7 Mysql Sample Example 1

```
1 CREATE TABLE SampleTable (  
2   id INT(6) NOT NULL,  
3   firstname VARCHAR(30) NOT NULL,  
4   lastname VARCHAR(30) NOT NULL  
5 );  
6  
7 insert into SampleTable values (1,"Jaimin","Rathod");  
8 insert into SampleTable values (2,"Viram","Shah");  
9 insert into SampleTable values (3,"Dhruv","Tandel");  
10  
11 select * from SampleTable;  
12
```

Compile

Figure 4.13: Mysql code 1

Output

id	firstname	lastname
1	Jaimin	Rathod
2	Viram	Shah
3	Dhruv	Tandel

Figure 4.14: Mysql code output 1

#### 4.4.8 Mysql Sample Example 2

```
1 select lastname from SampleTable where id=1;  
2 select * from SampleTable order by id desc;  
3 delete from SampleTable where id=2;  
4 select * from SampleTable;  
5
```

Compile

Figure 4.15: Mysql code 2

Output

```
lastname  
Rathod  
id firstname lastname  
3 Dhruv Tandel  
2 Viram Shah  
1 Jaimin Rathod  
id firstname lastname  
1 Jaimin Rathod  
3 Dhruv Tandel
```

Figure 4.16: Mysql code output 2



#### 4.4.9 Add Contest

Contest Name: SVNIT coding contest

Contest Description: This coding contest consist of two questions each of 100 marks. You can use any of the programming language listed in dropdown list. Good luck!!

Add Questions

Figure 4.17: Form for the add contest with name and description fields

Question Name: Palindrome

Question Description: Monk introduces the concept of palindrome saying, "A palindrome is a sequence of characters which reads the same backward or forward." Now, since he loves things to be binary, he asks you to find whether the given string is palindrome or not. If a given

Input: 3  
abc  
abba  
aba

Output: NO  
YES EVEN  
YES ODD

ID	Input	Output	Marks
1	1 xyz	NO	5
2	1 xyx	YES ODD	5

Figure 4.18: Form for the add question with name, description, sample input. sample output and test cases fields 1

Question Name

Question Description

ID	Input	Output	Marks
1	<input type="text" value="5"/>	<input type="text" value="ODD"/>	<input type="text" value="50"/>
2	<input type="text" value="6"/>	<input type="text" value="EVEN"/>	<input type="text" value="50"/>

[Add Testcase](#)

[Next Question](#) [Finish](#)

Figure 4.19: Form for the add question with name, description, sample input. sample output and test cases fields 2

#### 4.4.10 Join Contest

Contests		
ID	Contest	Organizer
1	<a href="#">SVNIT coding contest</a>	jam
2	<a href="#">By me</a>	jaimin
3	<a href="#">all done</a>	temp

Figure 4.20: List of the available contests

## SVNIT coding contest

### Description

This coding contest consist of two questions each of 100 marks.  
 You can use any of the programming language listed in dropdown list.  
 Good luck!!

### Questions

ID	Question
1	<a href="#">Palindrome</a>
2	<a href="#">Odd Even</a>

[Leaderboard](#)

Figure 4.21: Contest home page that contains the question's name

## Palindrome

### Problem Specification

Monk introduces the concept of palindrome saying,"A palindrome is a sequence of characters which reads the same backward or forward."  
 Now, since he loves things to be binary, he asks you to find whether the given string is palindrome or not. If a given string is palindrome, you need to state that it is even palindrome (palindrome with even length) or odd palindrome (palindrome with odd length).

**Input:**  
 The first line consists of T, denoting the number of test cases.  
 Next follow T lines, each line consisting of a string of lowercase English alphabets.

**Output:**  
 For each string, you need to find whether it is palindrome or not.  
 If it is not a palindrome, print NO.  
 If it is a palindrome, print YES followed by a space; then print EVEN if it is an even palindrome else print ODD.  
 Output for each string should be in a separate line.  
 See the sample output for clarification.

Sample Input	Sample Output
3 abc abba aba	NO YES EVEN YES ODD

Figure 4.22: Description of the question for the users

```

C++
2 using namespace std;
3 int main()
4 {
5     int t;
6     cin>>t;
7     while(t-->0)
8     {
9         string s;
10        cin>>s;
11        int x=s.length();
12        int f=1;
13        for(int i=0;i<x/2;i++)
14        {
15            if(s[i]!=s[x-i-1])
16                f=0;
17        }
18        if(f==0)
19            cout<<"NO"<<endl;
20        else if(x%2==0)
21            cout<<"YES EVEN"<<endl;
22        else
23            cout<<"YES ODD"<<endl;
24    }
25 }

```

Compile & Test    Compile

Figure 4.23: Code editor window where a user can write code

Compilation log		
Output		
ID	Result	Marks
1	Sample Test Case Passed	0

Figure 4.24: Result of the Sample test case

Compilation log		
Output		
ID	Result	Marks
1	✓	5/5
2	✓	5/5
3	✓	5/5
4	✓	5/5
5	✓	40/40
6	✓	40/40

Figure 4.25: Result of your code against the various test cases

Leaderboard			
username	total	Palindrome	OddEven
Viram	200	100	100
jam	100	100	0
sagar	100	0	100

Figure 4.26: Leaderboard of a contest