ABESIT

COLLEGE CODE – 290

Lab File

NAME	SANDEEP KUMAR SHUKLA
BRANCH	CSE
UNIVERSITY ROLL NO.	1729010140
SESSION	2019-20
NAME OF LAB	Web Technology Lab (RCS 554)

Aim :- *Write a program to use basic tags, links, list, tables, images, videos and also implement frameset.*

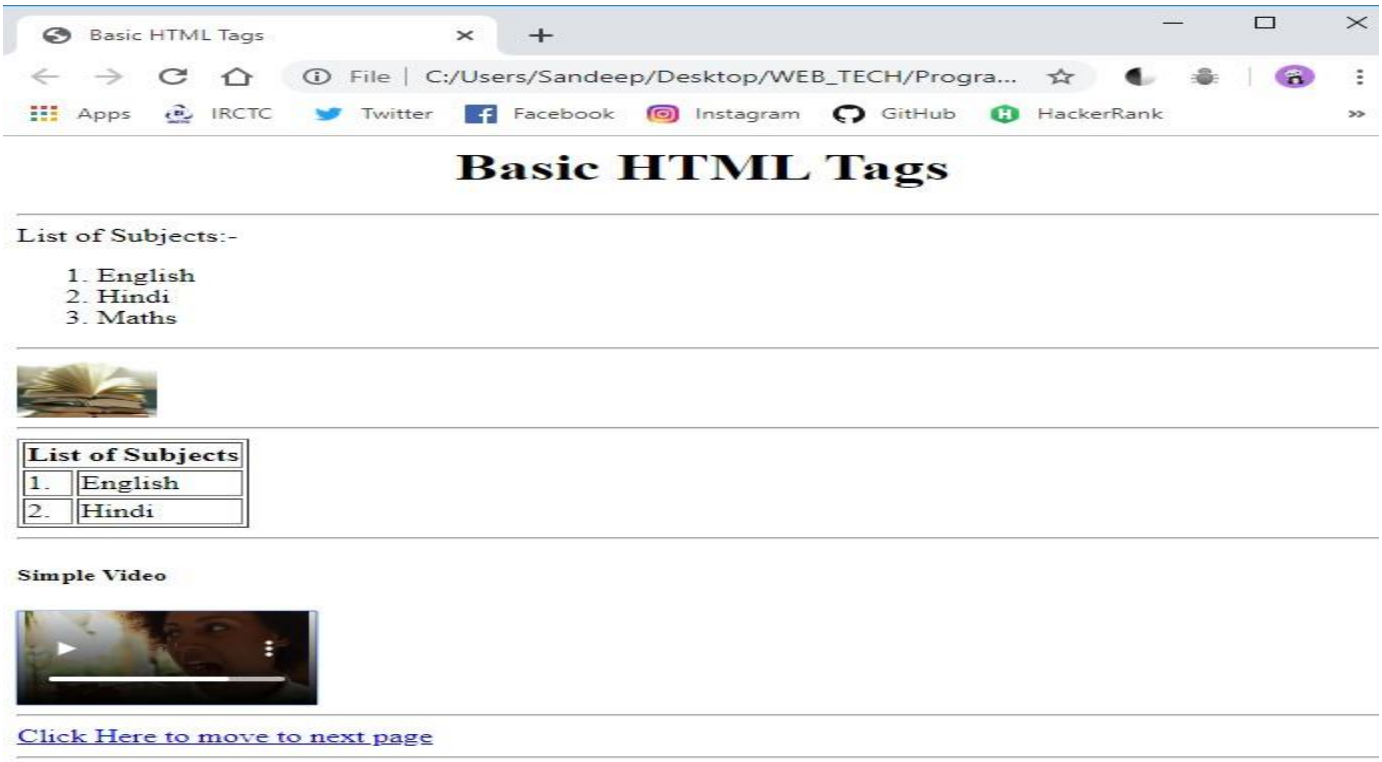
Code :-

HTML CODE

```
<html>
 <head>
  <title>Basic HTML Tags</title>
 </head>
 <body>
  <h1 style="text-align:center;">Basic HTML Tags</h1> <hr>
  List of Subjects:-
  <ol>
   <li>English</li>
   <li>Hindi</li>
   <li>Maths</li>
  </ol> <hr>
  <img src="book.jpg" height="50px" width="70px"> <hr>
  <table border="1.0" >
   <tr>
    <th colspan="2">List of Subjects</th>
   </tr>
   <tr>
    <td>1.</td>
    <td>English</td>
   </tr>
   <tr>
    <td>2.</td>
    <td>Hindi</td>
   </tr>
  </table><hr>
  <h5>Simple Video</h5>
```

```
    <video  autoplay width="150px" height="80px" controls>
      <source src="video1.mp4" type="video/mp4">
    </video> <hr>
   <a href="#">Click Here to move to next page</a>   <hr>
  </body>
</html>
```

Output :-



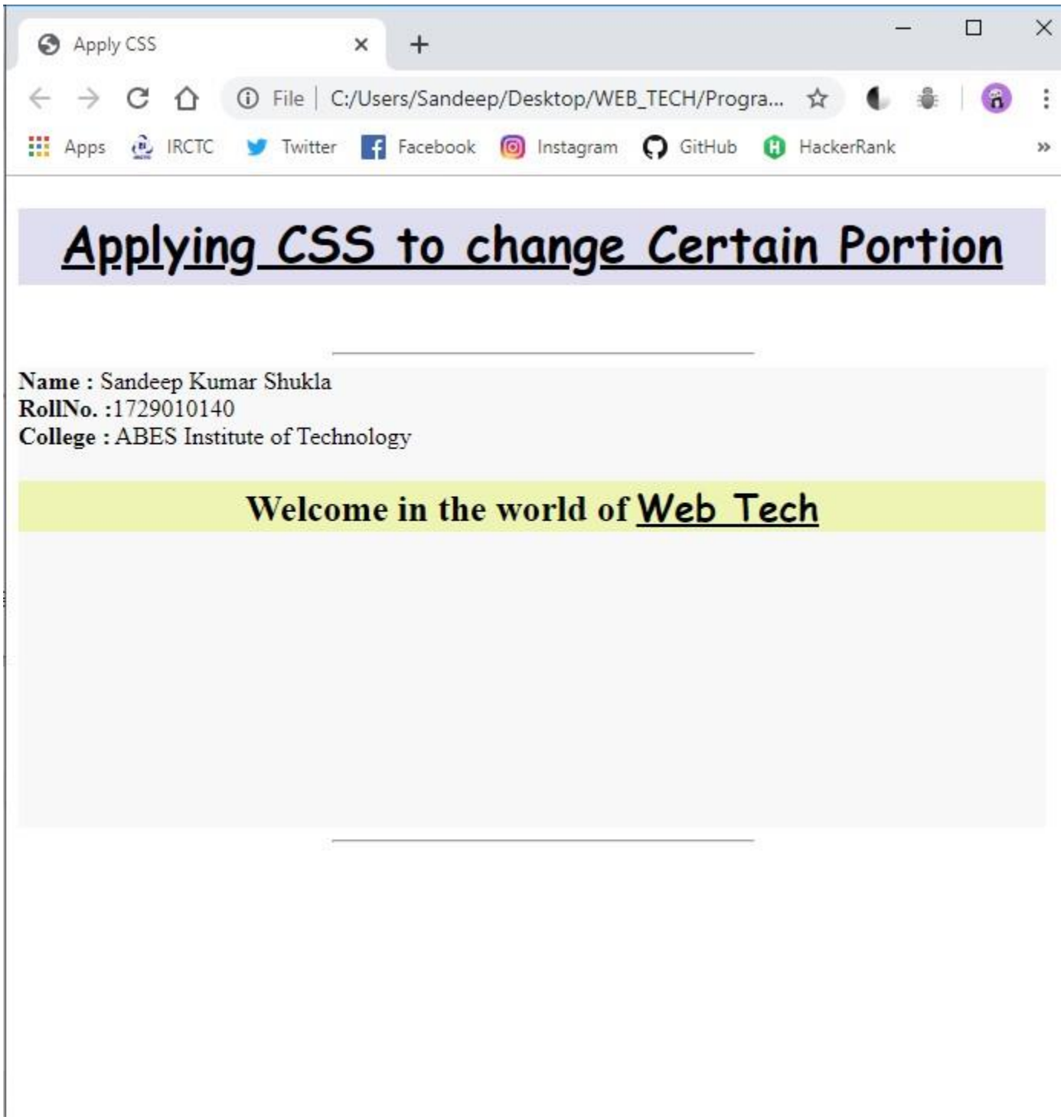
Aim :- *Apply CSS to change a certain portion, Bold, Italic, and Underline certain words in your HTML web pages.*

Code :-

HTML CODE

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
  <head>
    <meta charset="utf-8">
    <title>Apply CSS</title>
  </head>
  <body>
    <div style="height:50px;width:98%;background-color:#dedef0;">
      <h1 style="text-align:center; text-decoration:underline;font-family:cursive;">Applying CSS to change Certain Portion</h1>
    </div> <br><br>
    <hr width="40%">
    <div style="height:300px;width:98%;background-color:#f8f8f8;">
      <span style="font-weight:bold;">Name :</span> Sandeep Kumar Shukla <br>
      <span  style="font-weight:bold;">RollNo. :</span>1729010140 <br>
      <span  style="font-weight:bold;">College :</span> ABES Institute of Technology <br>
      <div style="text-align:center;background-color:#eef5b2">
        <h2>Welcome in the world of <span style="text-decoration:underline;font-family:cursive;">Web Tech</span></h2>

      </div>
    </div>
    <hr width="40%">
  </body>
</html>
```

Output :-


Apply CSS
File | C:/Users/Sandeep/Desktop/WEB_TECH/Progra...
Apps
IRCTC
Twitter
Facebook
Instagram
GitHub
HackerRank
Applying CSS to change Certain Portion
Name : Sandeep Kumar Shukla
RollNo. :1729010140
College : ABES Institute of Technology
Welcome in the world of Web Tech

Aim :- *Write a program using HTML and CSS to create a menu.*

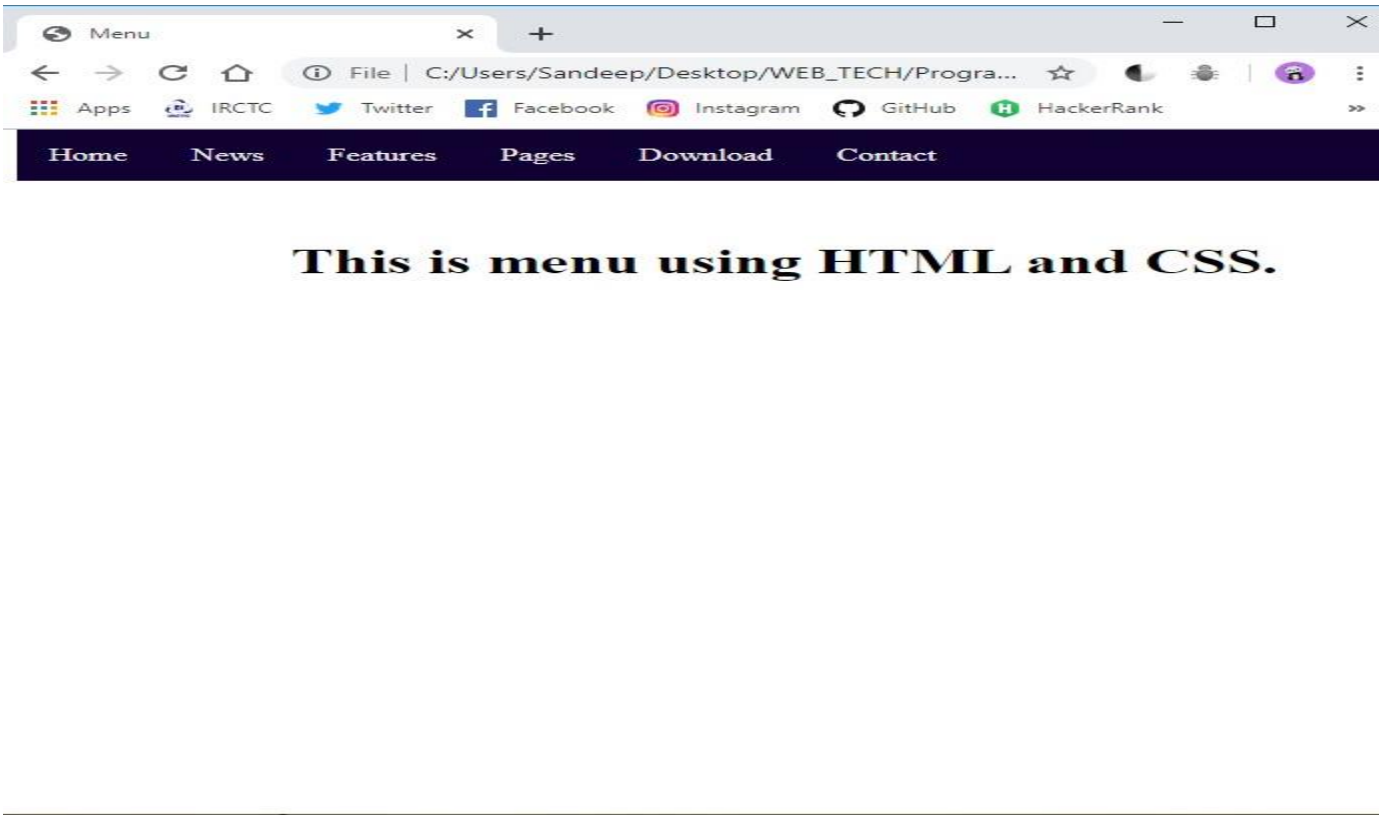
Code :-

HTML CODE

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
<head>
  <meta charset="utf-8">
  <title>Menu</title>
  <style media="screen">
    .navbar {
      overflow: hidden;
      background-color: #110133;
      position: fixed;
      top: 0;
      width: 100%;
    }
    .navbar a {
      float: left;
      display: block;
      color: #f2f2f2;
      text-align: center;
      padding: 14px 16px;
      text-decoration: none;
    }
  </style>
</head>
<body>
  <div class="navbar">
    <a href="#home">Home</a>
```

```
    <a href="#news">News</a>
    <a href="#news">Features</a>
    <a href="#news">Pages</a>
    <a href="#news">Download</a>
    <a href="#contact">Contact</a>
  </div>
  <div style="margin-top: 100px;margin-left:20%">
    <h1>This is menu using HTML and CSS.</h1>
  </div>
</body>
</html>
```

Output :-



Aim :- *Wrirte a program to invoke External CSS in HTML.*

Code :-

HTML CODE

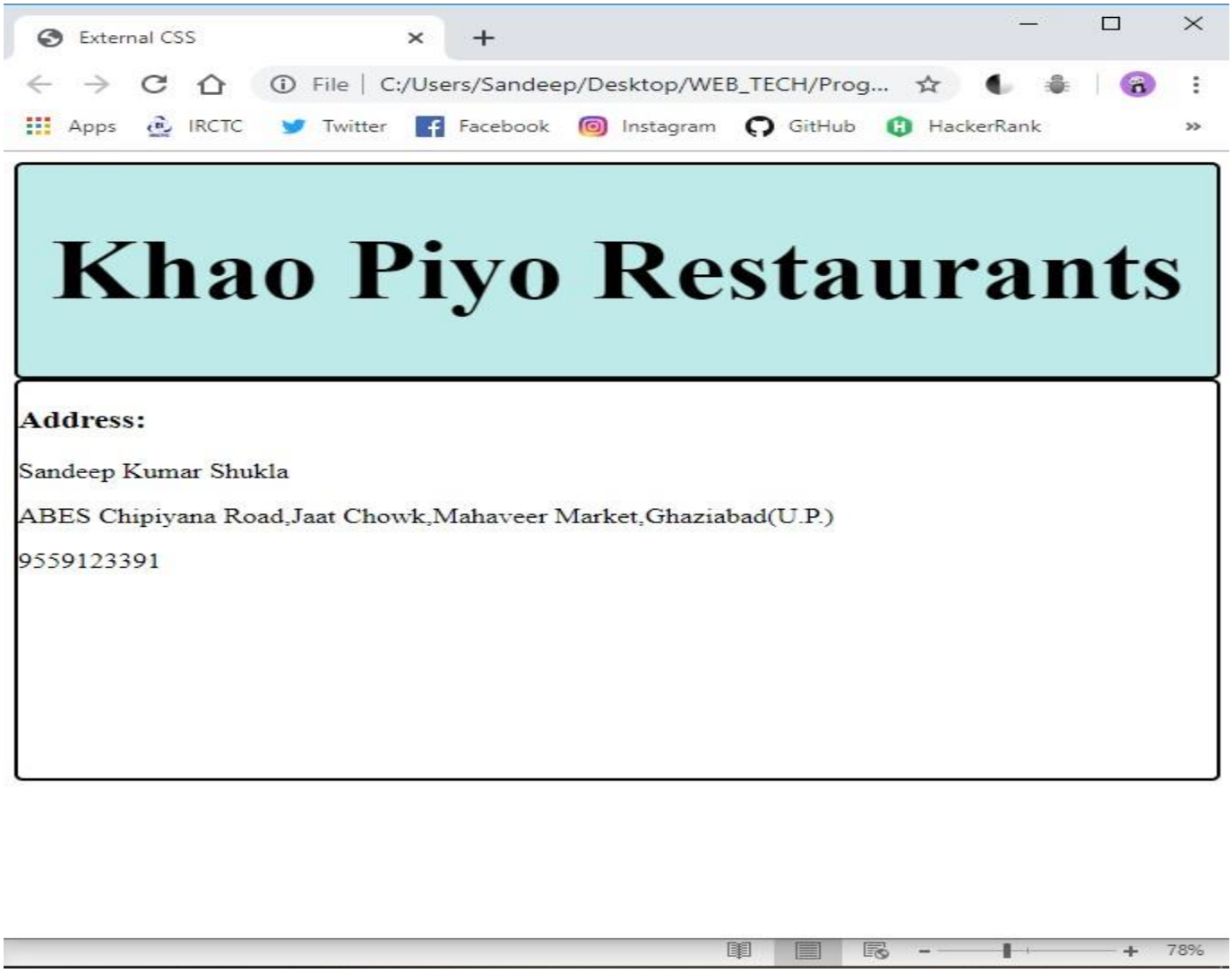
```
<!DOCTYPE html>
<html lang="en" dir="ltr">
  <head>
    <meta charset="utf-8">
    <title>External CSS</title>
    <link rel="stylesheet" href="Styles.css">
  </head>
  <body>
    <div class="heading">
      <h1>Khao Piyo Restaurants</h1>
    </div>
    <div class="div_style">
    <h3>Address:</h3>
    <p>Sandeep Kumar Shukla</p>
    <p>ABES Chipiyana Road,Jaat Chowk,Mahaveer Market,Ghaziabad(U.P.)</p>
    <p>9559123391</p>
    </div>
  </body>
</html>
```

CSS CODE

```
h1{
  text-align: center;
  font-size: 64px;
}
```

```
.heading{
  border: 2px solid black;
  border-radius: 5px;
  background-color: #beebe9;
}
.div_style{
  border: 2px solid black;
  border-radius: 5px;
  height: 300px;
  width: auto;
}
```

Output :-



Aim :- *Wrirte a program to invoke Internal CSS in HTML.*

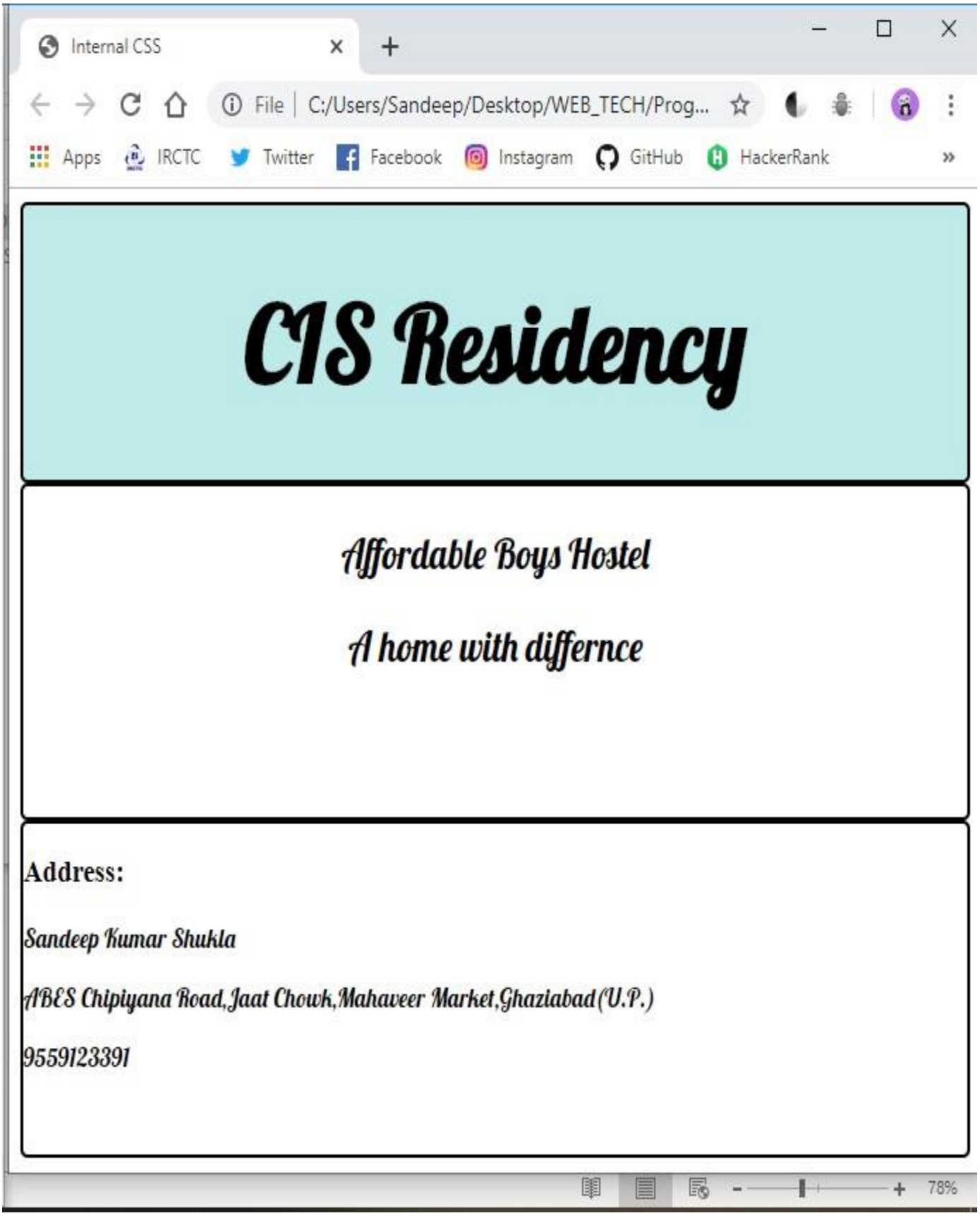
Code :-

HTML CODE

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
<head>
 <meta charset="utf-8">
 <title>Internal CSS</title>
 <link href="https://fonts.googleapis.com/css?family=Lobster&display=swap" rel="stylesheet">
 <style media="screen">
  h1 {
   text-align: center;
   font-size: 64px;
   font-family: 'Lobster';
  }
  .heading {
   border: 2px solid black;
   border-radius: 5px;
   background-color: #beebe9;
  }
  .div_style {
   border: 2px solid black;
   border-radius: 5px;
   height: 200px;
   width: auto;
  }
  p {
   font-family: 'Lobster';
  }
```

```
    .p_style {
      text-align: center;
      font-size: 25px
    }
  </style>
</head>

<body>
  <div class="heading">
    <h1>CIS Residency</h1>
  </div>
  <div class="div_style">
    <p class="p_style">Affordable Boys Hostel</p>
    <p class="p_style">A home with differnce</p>
  </div>
  <div class="div_style">
    <h3>Address:</h3>
    <p>Sandeep Kumar Shukla</p>
    <p>ABES Chipiyana Road,Jaat Chowk,Mahaveer Market,Ghaziabad(U.P.)</p>
    <p>9559123391</p>
  </div>
</body>
</html>
```

Output :-


Internal CSS
File | C:/Users/Sandeep/Desktop/WEB_TECH/Prog...
Apps
IRCTC
Twitter
Facebook
Instagram
GitHub
HackerRank
CIS Residency
Affordable Boys Hostel
A home with differnce
Address:
Sandeep Kumar Shukla
ABES Chipiyana Road,Jaat Chowk,Mahaveer Market,Ghaziabad(U.P.)
9559123391
78%

Aim :- *Create one HTML using CSS which repeat background image.*

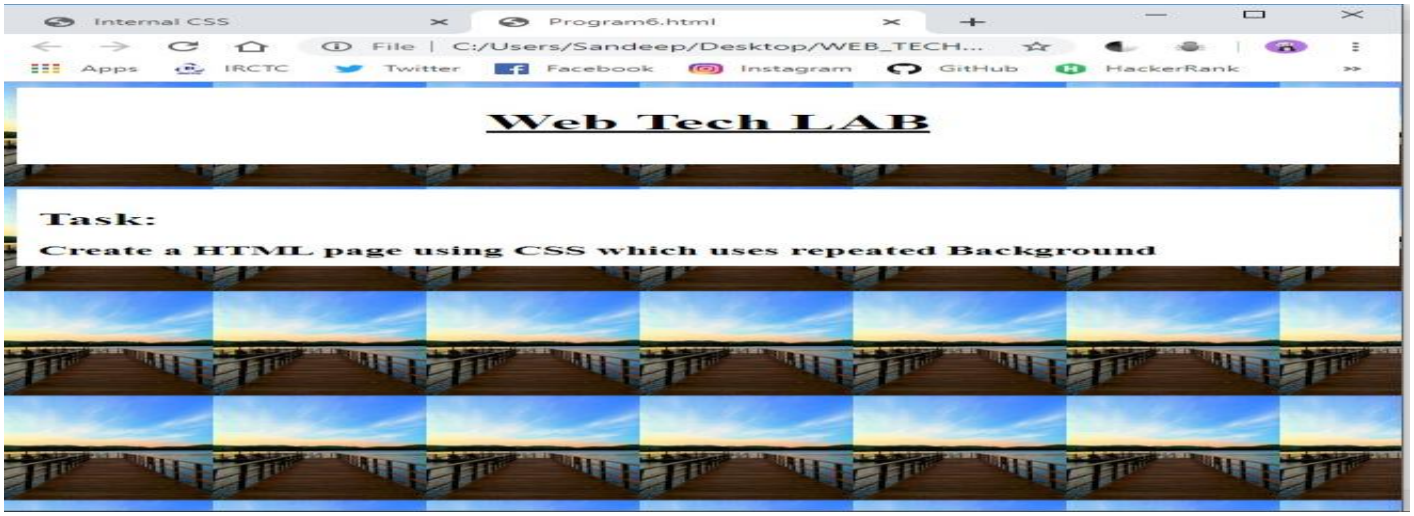
Code :-

HTML CODE

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
<head>
 <meta charset="utf-8">
 <title></title>
 <style media="screen">
  h1 {
   text-decoration: underline;
   text-align: center;
   color: black;
  }
  h2,
  h3 {
   color: color;
  }
  .heading_style {
   height: 90px;
   width: 98%;
   background-color: white;
  }
  img {
   height: 100px;
   width: 100px;
   padding: 20px;
  }
```

```
  body {
    background-image: url("https://images.pexels.com/photos/1227520/pexels-photo-1227520.jpeg?auto=compress&cs=tinysrgb&dpr=1&w=500");
    background-repeat: repeat;
    background-size: 100px 150px;
  }
  div {
    padding: 10px;
  }
 </style>
</head>
<body>
 <div class="heading_style">
  <h1>Web Tech LAB</h1>
 </div><br><br>
 <div class="heading_style">
  <h2>Task:</h2>
  <h3>Create a HTML page using CSS which uses repeated Background</h3>
 </div>
</body>
</html>
```

Output :-



Aim :- *Write HTML to Display your CV.*

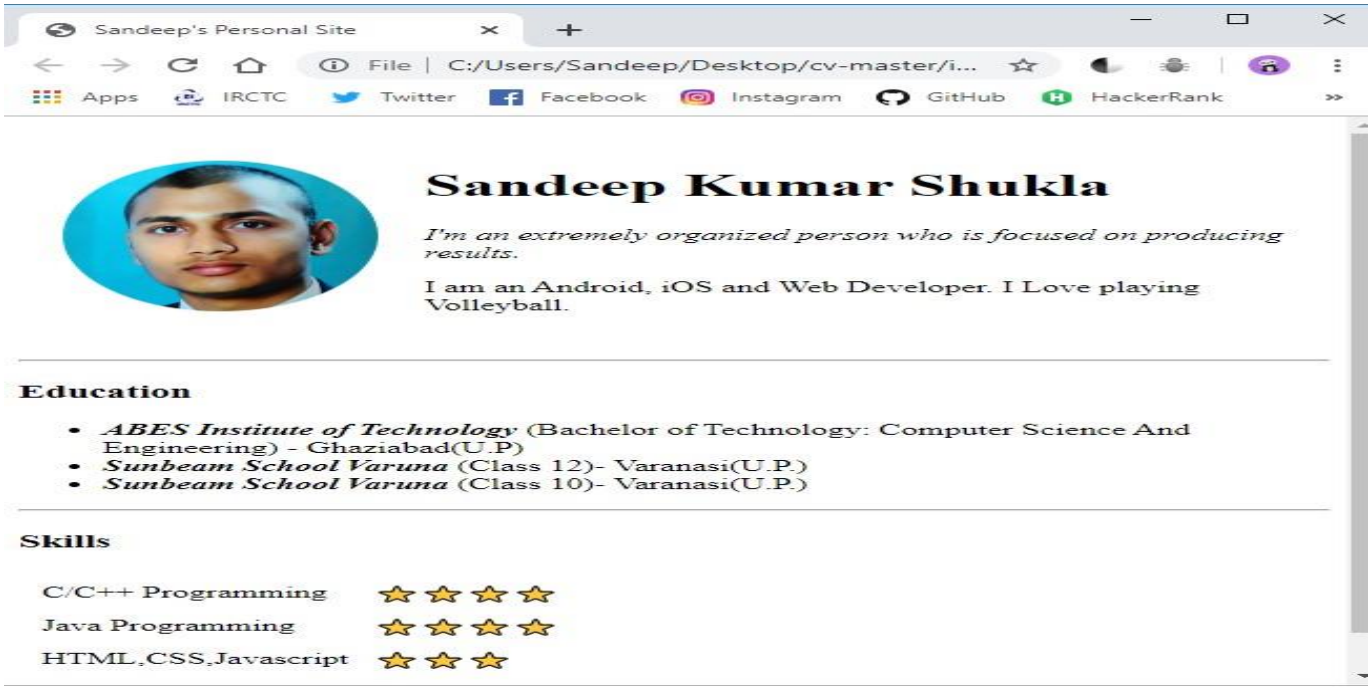
Code :-

HTML CODE

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
<head>
  <meta charset="utf-8">
  <title>Sandeep's Personal Site</title>
</head>
<body>
  <table cellspacing="20">
    <tr>
     <td><img src="./images/sandeep profile picture.png" alt="Sandeep Profile Picture" height="150" width="150"></td>
     <td><h1>Sandeep Kumar Shukla</h1>
     <p><em>I'm an extremely organized person who is focused on producing results.</em></p>
     <p>I am an Android, iOS and Web Developer. I Love playing Volleyball.</p></td>
    </tr>
  </table>  <hr>
  <h3>Education</h3>
  <ul>
    <li><em><strong>ABES Institute of Technology </strong></em>(Bachelor of Technology: Computer Science And Engineering) - Ghaziabad(U.P)</li>
    <li><em><strong>Sunbeam School Varuna </strong></em>(Class 12)- Varanasi(U.P.)</li>
    <li><em><strong>Sunbeam School Varuna </strong></em>(Class 10)- Varanasi(U.P.)</li>
  </ul>
  <hr>
  <h3>Skills</h3>
  <table cellspacing="10">
    <tr>
```

```
    <td>C/C++ Programming</td>
    <td>⋆ ⋆ ⋆ ⋆</td>
  </tr>
  <tr>
    <td>Java Programming</td>
    <td>⋆ ⋆ ⋆ ⋆</td>
  </tr>
  <tr>
    <td>HTML,CSS,Javascript</td>
    <td>⋆ ⋆ ⋆</td>
  </tr>
 </table>
 <hr>
 <a href="hobbies.html">My Hobbies</a>
 <a href="contact-me.html">Contact</a>
</body>
</html>
```

Output :-



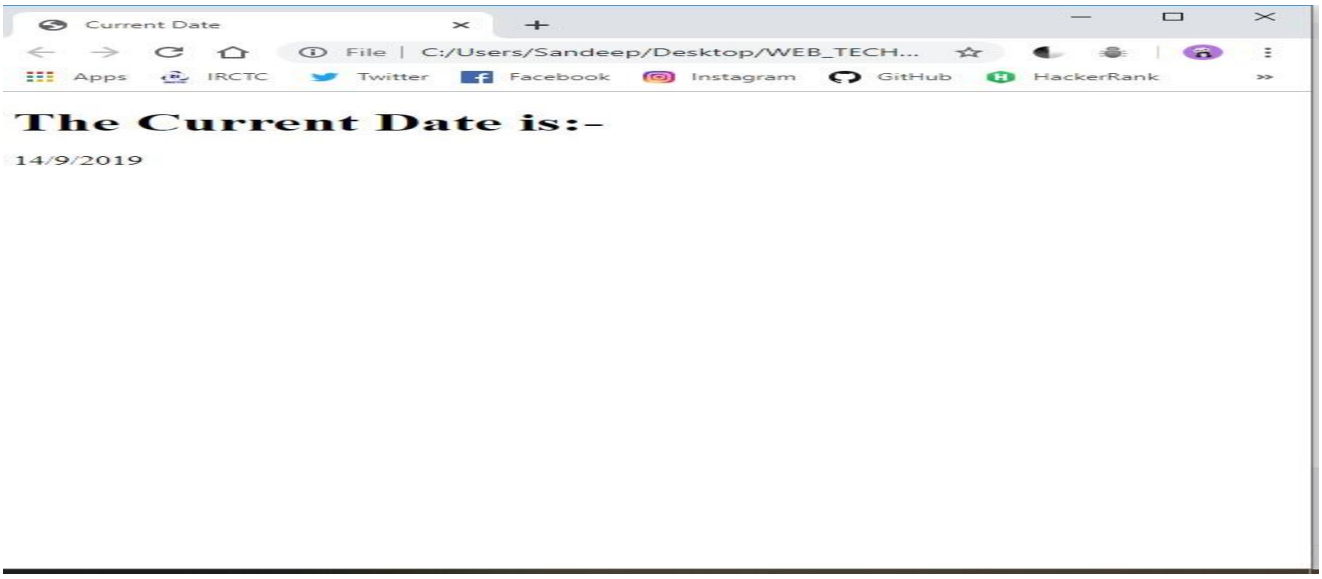
Aim :- *Write a program to print date using Javascript.*

Code :-

HTML CODE

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
<head>
  <meta charset="utf-8">
  <title>Current Date</title>
</head>
<body>
  <h1>The Current Date is:-</h1>
  <script type="text/javascript">
    var now = new Date();
    document.write( now.getDate()+ "/" +(now.getMonth() + 1) + "/" + now.getFullYear());
  </script>
</body>
</html>
```

Output :-



Aim :- *Write a program to sum and multiply two numbers using Javascript.*

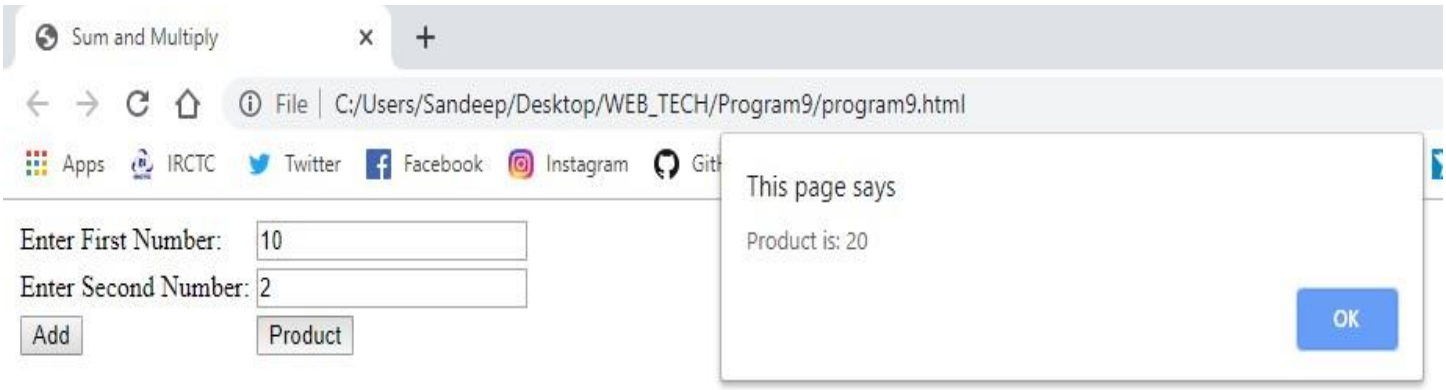
Code :-

HTML CODE

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
<head>
 <meta charset="utf-8">
 <title>Sum and Multiply</title>
</head>
<body>
 <script>
  function add() {
   var num1 = document.form.text1.value;
   var num2 = document.form.text2.value;
   var sum = Number(num1) + Number(num2);
   alert("Sum of two numbers is: " + sum);
  }
  function product() {
   var num1 = document.form.text1.value;
   var num2 = document.form.text2.value;
   var sum = Number(num1) * Number(num2);
   alert("Product is: " + sum);
  }
 </script>
 <form name="form">
  <table>
   <tr>
    <td>Enter First Number:</td>
```

```
      <td><input type="text" name="text1"></td>
    </tr>
    <tr>
      <td>Enter Second Number:</td>
      <td><input type="text" name="text2"></td>
    </tr>
    <tr>
      <td><input type="button" value="Add" onclick="add();"></td>
      <td><input type="button" value="Product" onclick="product();"></td>
    </tr>
  </table>
</body>
</html>
```

Output :-



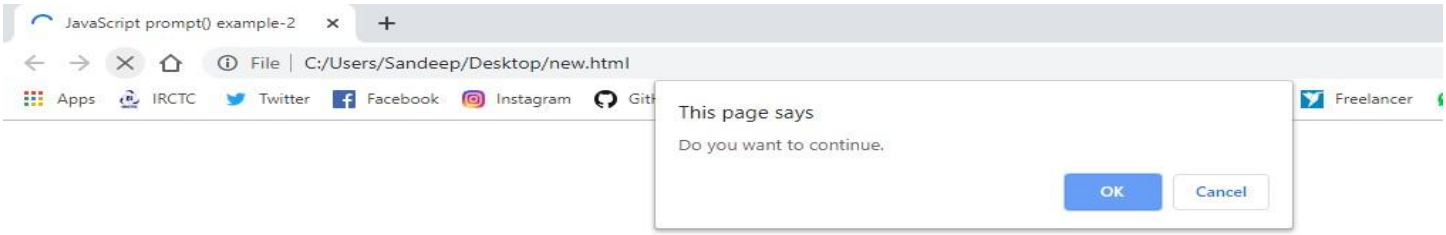
Aim :- *Write a program to show use of alert, confirm, prompt box.*

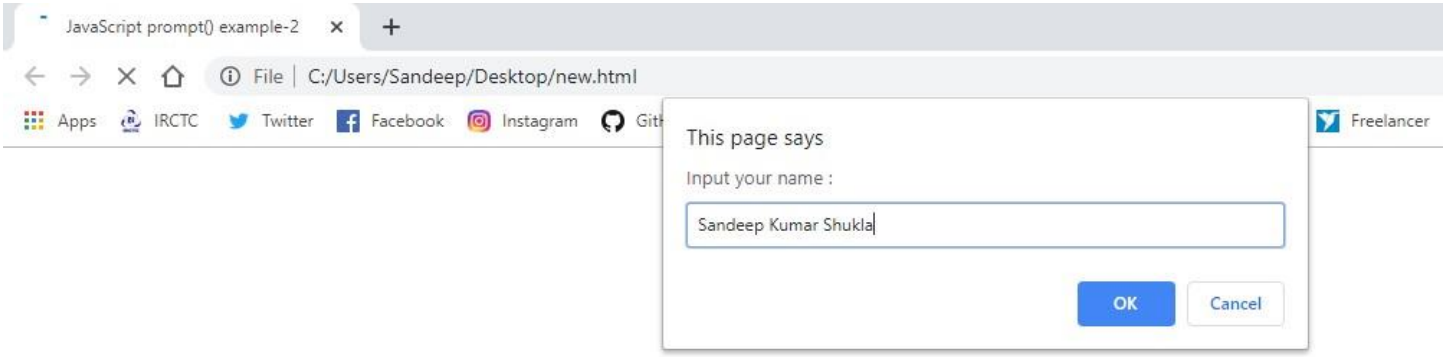
Code :-

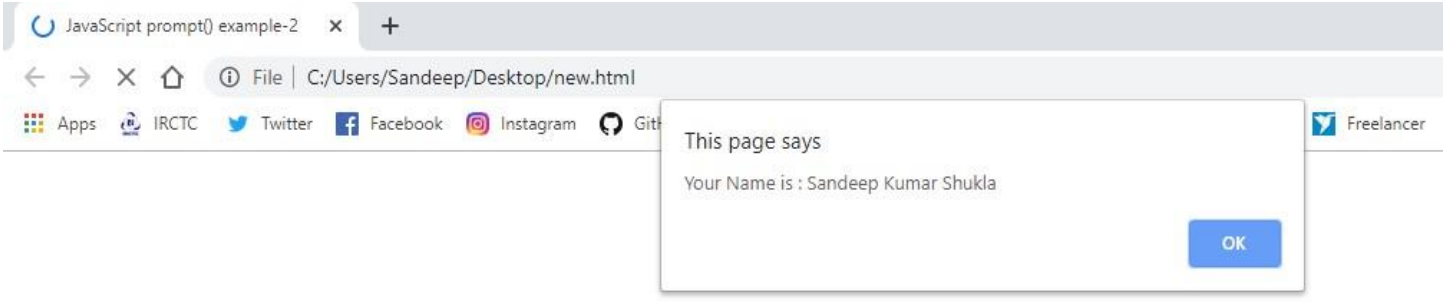
HTML CODE

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
<head>
  <meta charset="utf-8">
  <title></title>
</head>
<body>
  <script type="text/javascript">
    mess1 = 'Do you want to continue.';
    x = confirm(mess1);
    if (x == true) {
      visiter_name = prompt("Input your name : ");
      if (visiter_name != null && visiter_name != "")
        alert("Your Name is : " + visiter_name);
      else
        alert("Blank name ...!");
    } else {
      alert("You have clicked on Cancel Button.");
    }
  </script>
</body>
</html>
```

Output :-


JavaScript prompt() example-2
File | C:/Users/Sandeep/Desktop/new.html
Apps
IRCTC
Twitter
Facebook
Instagram
Freelancer
This page says
Do you want to continue.
OK
Cancel


JavaScript prompt() example-2
File | C:/Users/Sandeep/Desktop/new.html
Apps
IRCTC
Twitter
Facebook
Instagram
Freelancer
This page says
Input your name :
Sandeep Kumar Shukla
OK
Cancel


JavaScript prompt() example-2
File | C:/Users/Sandeep/Desktop/new.html
Apps
IRCTC
Twitter
Facebook
Instagram
Freelancer
This page says
Your Name is : Sandeep Kumar Shukla
OK

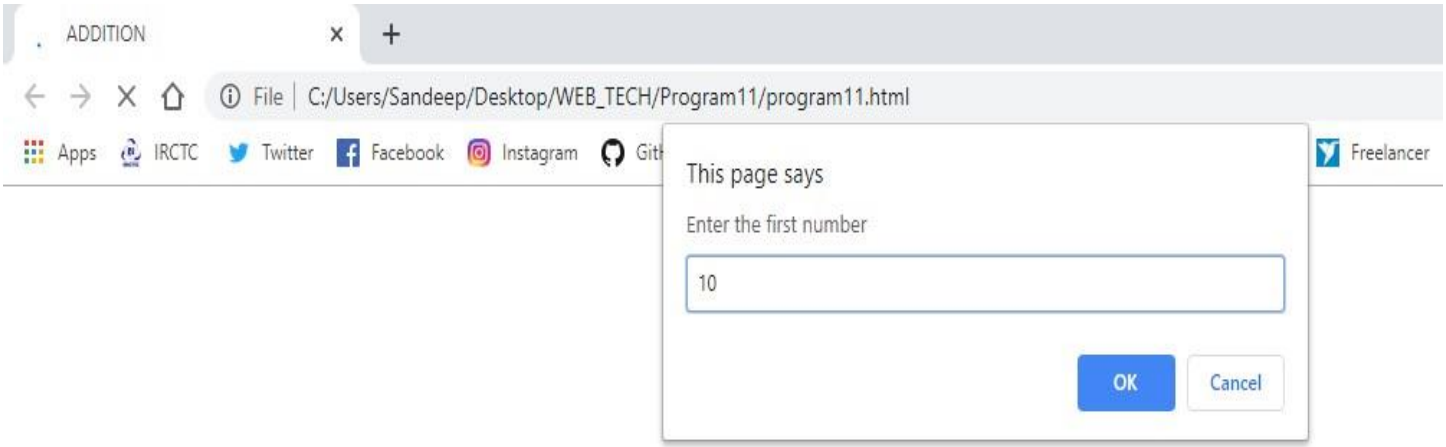
Aim :- *Write a program to add two numbers using "Prompt Box" in JavaScript.*

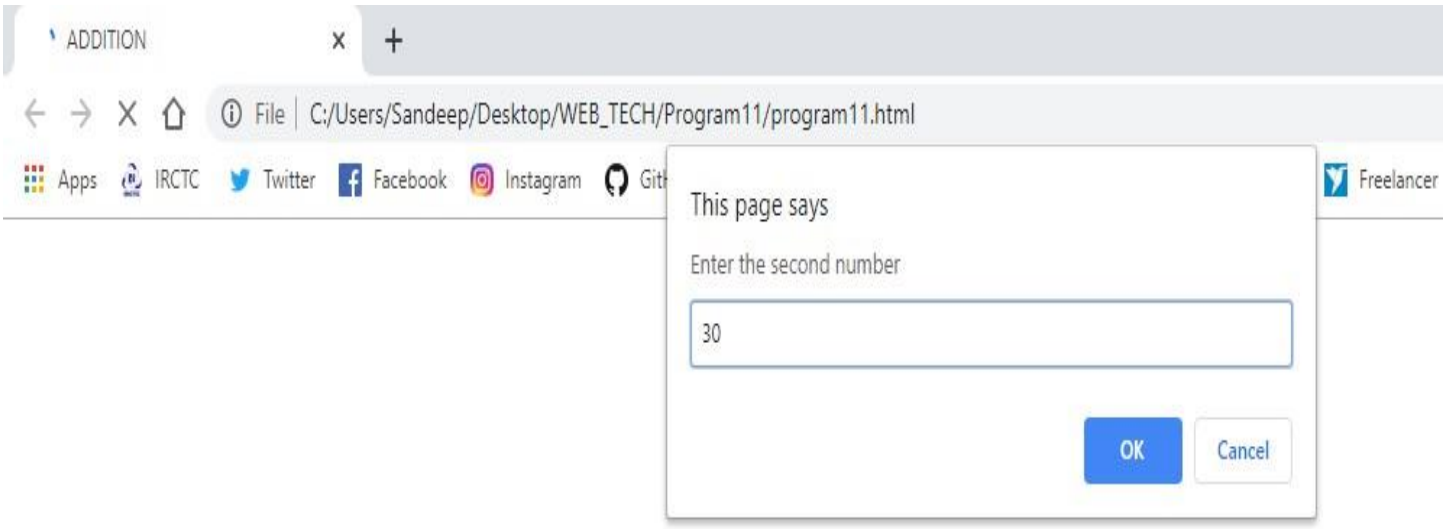
Code :-

HTML CODE

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
<head>
 <meta charset="utf-8">
 <title>ADDITION</title>
</head>
<body>
 <SCRIPT LANGUAGE="JavaScript">
  var first_number = parseFloat(prompt("Enter the first number", ""));
  var second_number = parseFloat(prompt("Enter the second number", ""));
  var answer = first_number + second_number;
  document.write("The answer is " + answer);
 </SCRIPT>
</body>
</html>
```

Output :-




ADDITION
File C:/Users/Sandeep/Desktop/WEB_TECH/Program11/program11.html
Apps IRCTC Twitter Facebook Instagram Freelancer
This page says
Enter the second number
30
OK
Cancel


ADDITION
File C:/Users/Sandeep/Desktop/WEB_TECH/Program11/program11.html
Apps IRCTC Twitter Facebook Instagram GitHub HackerRank Developer Hackath... codechef gaana Freelancer
The answer is 40

Aim :- *Create a registration form and put validation check on values entered by the users using JavaScript. Also stop user submittimg blank form.*

Code :-

HTML CODE

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
  <head>
    <meta charset="utf-8">
    <title>Form Validation</title>
    <link rel="stylesheet" href="Styles.css">
    <script src="sample.js"></script>
  </head>
  <body onload="document.registration.userid.focus();">
<h1>Registration Form</h1>
Use tab keys to move from one input field to the next.
<form name='registration' onSubmit="return formValidation();">
<ul>
<li><label for="userid">User id:</label></li>
<li><input type="text" name="userid" size="12" /></li>
<li><label for="passid">Password:</label></li>
<li><input type="password" name="passid" size="12" /></li>
<li><label for="username">Name:</label></li>
<li><input type="text" name="username" size="50" /></li>
<li><label for="address">Address:</label></li>
<li><input type="text" name="address" size="50" /></li>
<li><label for="country">Country:</label></li>
<li><select name="country">
<option selected="" value="Default">(Please select a country)</option>
<option value="AF">Australia</option>
<option value="AL">Canada</option>
```

```
<option value="DZ">India</option>
<option value="AS">Russia</option>
<option value="AD">USA</option>
</select></li>
<li><label for="zip">ZIP Code:</label></li>
<li><input type="text" name="zip" /></li>
<li><label for="email">Email:</label></li>
<li><input type="text" name="email" size="50" /></li>
<li><label id="gender">Sex:</label></li>
<li><input type="radio" name="msex" value="Male" /><span>Male</span></li>
<li><input type="radio" name="fsex" value="Female" /><span>Female</span></li>
<li><label>Language:</label></li>
<li><input type="checkbox" name="en" value="en" checked /><span>English</span></li>
<li><input type="checkbox" name="nonen" value="noen" /><span>Non English</span></li>
<li><label for="desc">About:</label></li>
<li><textarea name="desc" id="desc"></textarea></li>
<li><input type="submit" name="submit" value="Submit" /></li>
</ul>
</form>
</body>
</html>
```

CSS Code(styles.css**)**

```
h1 {
margin-left: 70px;
}
form li {
list-style: none;
margin-bottom: 5px;
}
```

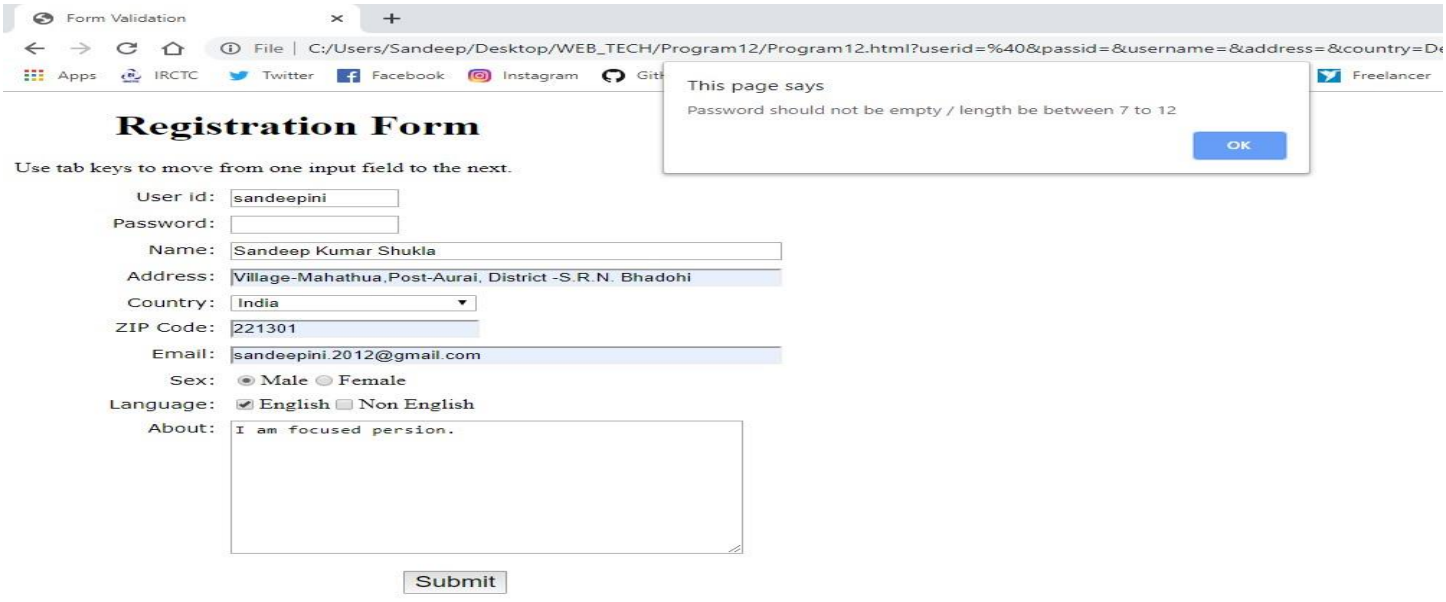
```
form ul li label{
float: left;
clear: left;
width: 100px;
text-align: right;
margin-right: 10px;
font-family:Verdana, Arial, Helvetica, sans-serif;
font-size:14px;
}

form ul li input, select, span {
float: left;
margin-bottom: 10px;
}

form textarea {
float: left;
width: 350px;
height: 150px;
}

[type="submit"] {
clear: left;
margin: 20px 0 0 230px;
font-size:18px
}
p {
margin-left: 70px;
font-weight: bold;
}
```

JavaScript Code (sample.js**)**

```
function formValidation() {
  var uid = document.registration.userid;
  var passid = document.registration.passid;
  var uname = document.registration.username;
  var uadd = document.registration.address;
  var ucountry = document.registration.country;
  var uzip = document.registration.zip;
  var uemail = document.registration.email;
  var umsex = document.registration.msex;
  var ufsex = document.registration.fsex;
  if (userid_validation(uid, 5, 12)) {
    if (passid_validation(passid, 7, 12)) {
      if (allLetter(uname)) {
        if (alphanumeric(uadd)) {
          if (countryselect(ucountry)) {
            if (allnumeric(uzip)) {
              if (ValidateEmail(uemail)) {
                if (validsex(umsex, ufsex)) {}
              }
            }
          }
        }
      }
    }
  }
  return false;
}
//For userid Validation
function userid_validation(uid, mx, my) {
```

```
  var uid_len = uid.value.length;
  if (uid_len == 0 || uid_len >= my || uid_len < mx) {
    alert("User Id should not be empty / length be between " + mx + " to " + my);
    uid.focus();
    return false;
  }
  return true;
}
//Password Checking
function passid_validation(passid, mx, my) {
  var passid_len = passid.value.length;
  if (passid_len == 0 || passid_len >= my || passid_len < mx) {
    alert("Password should not be empty / length be between " + mx + " to " + my);
    passid.focus();
    return false;
  }
  return true;
}
```

Output :-



Aim :- *Write a HTML program to design an entry form of student details and print the values filled in the form using JavaScript.*

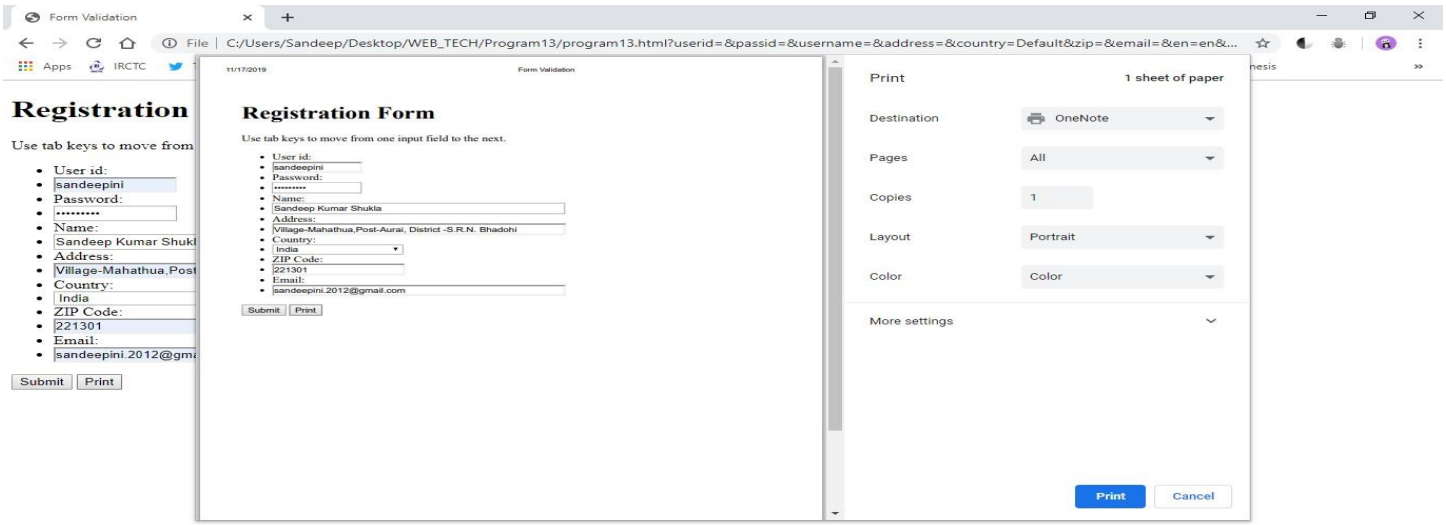
Code :-

HTML CODE

```
<!DOCTYPE html>
<html lang="en" dir="ltr">

<head>
  <meta charset="utf-8">
  <title>Form Validation</title>
  <script type="text/javascript">
    function print_form() {
      window.print();
    }
  </script>
</head>

<body onload="document.registration.userid.focus();">
  <h1>Registration Form</h1>
  Use tab keys to move from one input field to the next.
  <form name='registration' onSubmit="return formValidation();">
    <ul>
      <li><label for="userid">User id:</label></li>
      <li><input type="text" name="userid" size="12" /></li>
      <li><label for="passid">Password:</label></li>
      <li><input type="password" name="passid" size="12" /></li>
      <li><label for="username">Name:</label></li>
      <li><input type="text" name="username" size="50" /></li>
      <li><label for="address">Address:</label></li>
      <li><input type="text" name="address" size="50" /></li>
```

```
    <li><label for="country">Country:</label></li>
    <li><select name="country">
       <option selected="" value="Default">(Please select a country)</option>
       <option value="AF">Australia</option>
       <option value="AL">Canada</option>
       <option value="DZ">India</option>
       <option value="AS">Russia</option>
       <option value="AD">USA</option>
      </select></li>
    <li><label for="zip">ZIP Code:</label></li>
    <li><input type="text" name="zip" /></li>
    <li><label for="email">Email:</label></li>
    <li><input type="text" name="email" size="50" /></li>
  </ul>
  <input type="submit" name="submit" value="Submit" />
  <input type="button" name="button" value="Print" onclick="print_form()" />
 </form>
</body>
</html>
```

Output :-



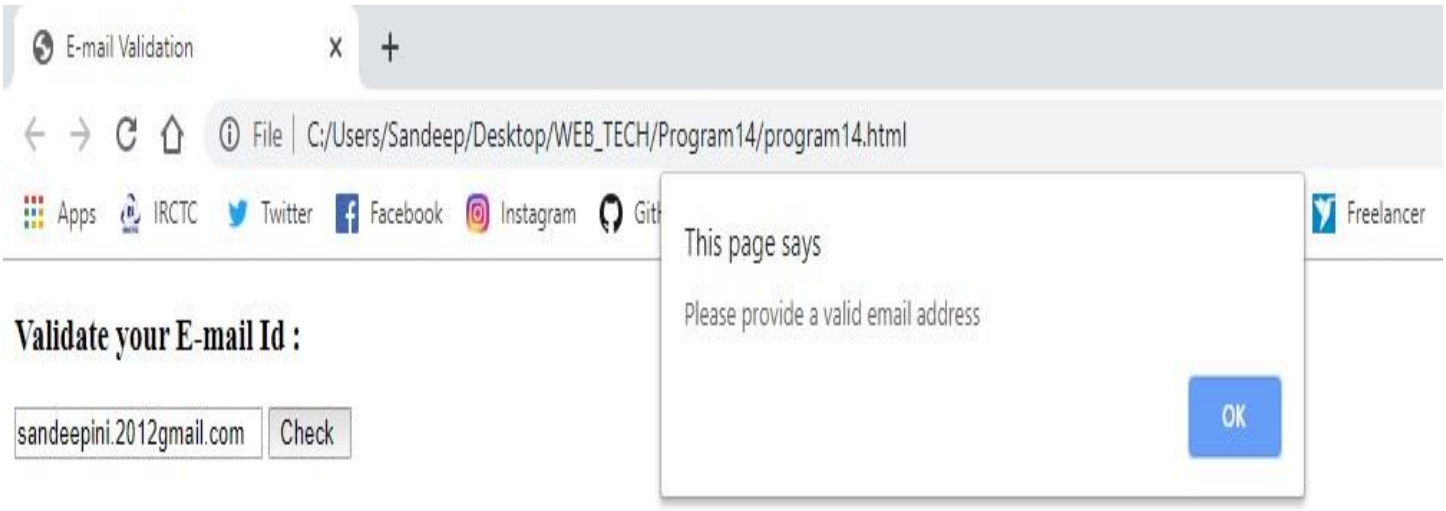
Aim :- *Write HTML to validate an E-mail Id.*

Code :-

HTML CODE

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
<head>
  <meta charset="utf-8">
  <title>E-mail Validation</title>
</head>
<body>
  <script type="text/javascript">
    function checkEmail() {
      var email = document.getElementById('txtEmail');
      var filter = /^([a-zA-Z0-9_\.\-])+\@(([a-zA-Z0-9\-])+\.)+([a-zA-Z0-9]{2,4})+$/;

      if (!filter.test(email.value)) {
        alert('Please provide a valid email address');
        email.focus;
        return false;
      }
    }
  </script>
  <h3>Validate your E-mail Id :</h3>
  <input type='text' id='txtEmail' />
  <input type='submit' name='submit' value="Check " onclick='Javascript:checkEmail();' />
</body>
</html>
```

Output :-

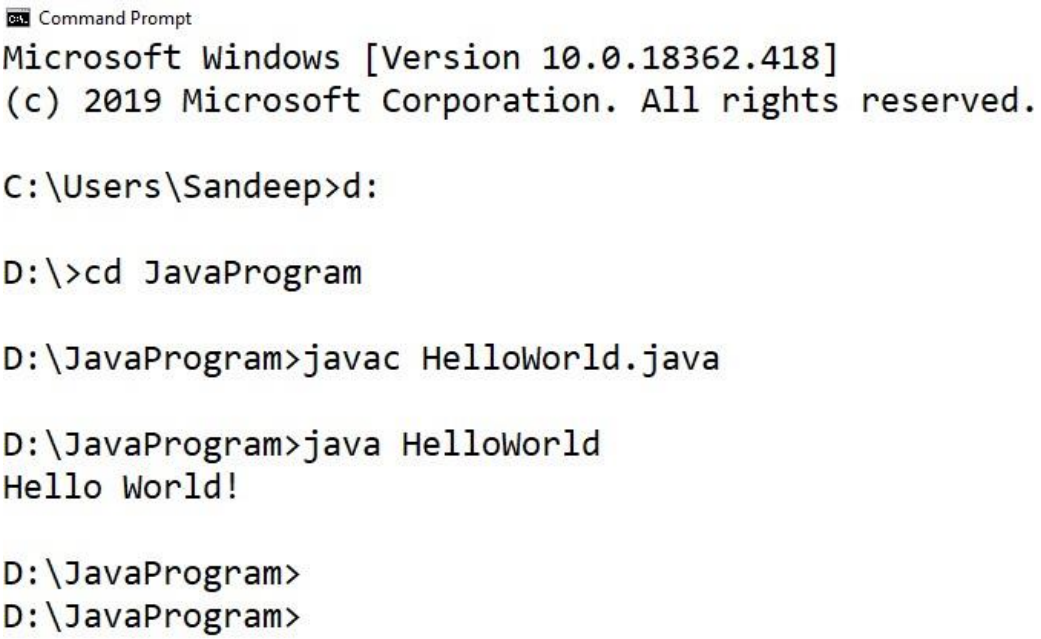

E-mail Validation
File | C:/Users/Sandeep/Desktop/WEB_TECH/Program14/program14.html
Apps
IRCTC
Twitter
Facebook
Instagram
Freelancer
This page says
Please provide a valid email address
OK
Validate your E-mail Id :
sandeepini.2012gmail.com
Check

Aim :- *Write a program to print “Hello World” in java*

Code :-

```
import java.util.*;

class HelloWorld{

	public static void main(String[] args){

		System.out.println("Hello World!");

	}


}
```

Output :-

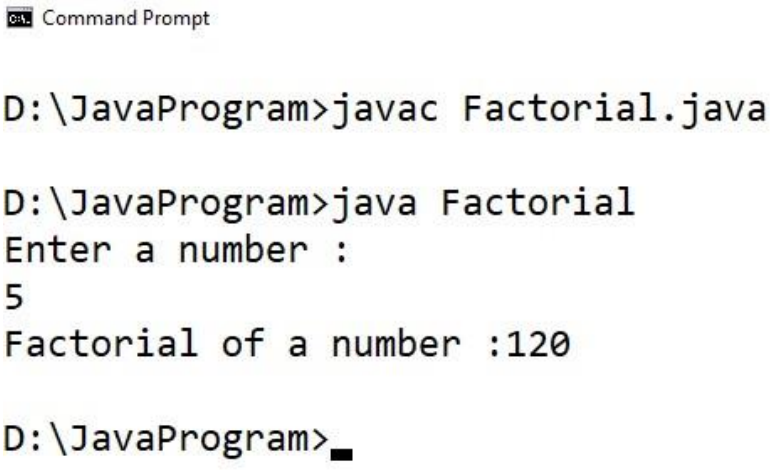


Aim :- *Write a program to implements basic datatypes and control structure.*

Code :-

```
import java.util.*;

class Factorial{

	public static void main(String[] args){

		int N,fact=1;

		Scanner sc = new Scanner(System.in);

		System.out.println("Enter a number :");

	   N = sc.nextInt();

		for(int i=1;i<=N;i++){

			fact = fact*i;

		}

		System.out.println("Factorial of a number :" + fact);

	}

}
```

Output :-



Aim :- *Write a program to print a pattern in java.*

Code :-

```
import java.util.*;

class Pattern{

	public static void main(String[] args){

		int N=5;

		System.out.println("The Given Pattern are");

		for(int i=1;i<=N;i++){

			for(int j=1;j<=i;j++){

				System.out.print(j + "\t");

			}

			System.out.println();

		}

	}

}
```

Output :-

Command Prompt

```
D:\JavaProgram>javac Pattern.java

D:\JavaProgram>java Pattern
The Given Pattern are
1
1       2
1       2       3
1       2       3       4
1       2       3       4       5

D:\JavaProgram>
```

Aim :- *Write a program to print sum of series 1+x+x2+x3+…+xn in java.*

Code :-

```
// Print sum of series 1+x+x2+x3+.....+xn

import java.io.*;

import java.lang.Math;

import java.util.*;

class sumSeries

{

    public static void main(String ar[])

    {

        double i,x=0,n=0,sum=0;

        DataInputStream obj= new DataInputStream(System.in);

        try

        {

            System.out.println("Enter the value of x:");

            x=Integer.parseInt(obj.readLine());

            System.out.println("Enter the value of n:");

            n=Integer.parseInt(obj.readLine());

        }

        catch(IOException e) {  }

        for(i=0;i<=n;i++)

        sum=sum+Math.pow(x,i);

        System.out.println("Sum is:"+sum);

    }

}
```

Output :-

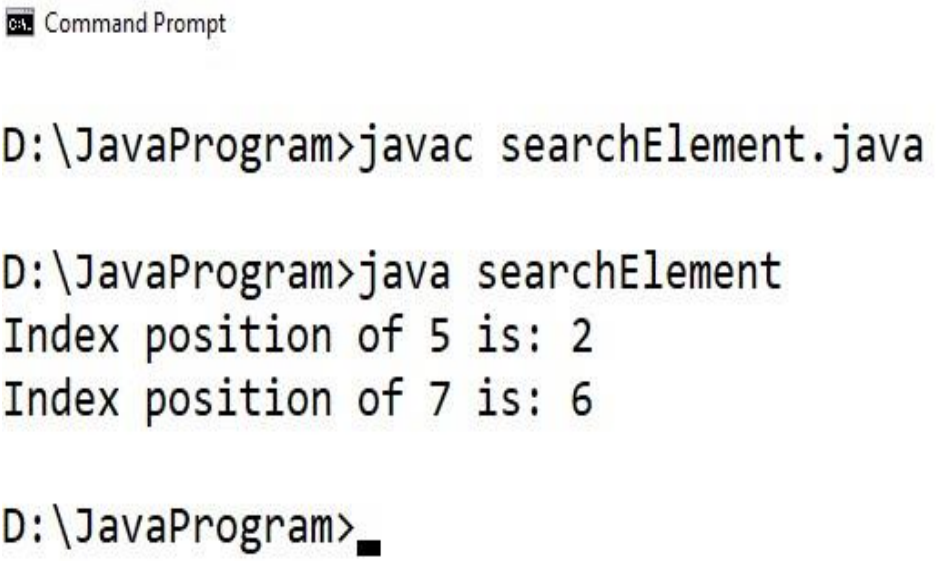
```
Command Prompt

D:\JavaProgram>javac sumSeries.java
Note: sumSeries.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.

D:\JavaProgram>java sumSeries
Enter the value of x:
3
Enter the value of n:
1
Sum is:4.0

D:\JavaProgram>java sumSeries
Enter the value of x:
2
Enter the value of n:
4
Sum is:31.0

D:\JavaProgram>_
```

Aim :- *Write a program to search an Element in array in java.*

Code :-

```
import java.util.*;
public class searchElement {
   public static int Index(int arr[], int t)
   {
      if (arr == null) {
         return -1;
      }
      int len = arr.length;
      int i = 0;
      while (i < len) {
         if (arr[i] == t) {
            return i;
         }
         else {
            i = i + 1;
         }
      }
      return -1;
   }
   public static void main(String[] args)
   {
      int[] array = { 5, 4, 6, 1, 3, 2, 7, 8, 9 };

      // find the index of 6
      System.out.println("Index position of 5 is: " + Index(array, 6));
      // find the index of 7
      System.out.println("Index position of 7 is: " + Index(array, 7));
   }
}
```

Output :-


Command Prompt
D:\JavaProgram>javac searchElement.java
D:\JavaProgram>java searchElement
Index position of 5 is: 2
Index position of 7 is: 6
D:\JavaProgram>

Aim :- *To construct a program using 2D array in java.*

Code :-

```
import java.util.*;


class Array{
	public static void main(String[] args){
		Scanner sc = new Scanner(System.in);
		System.out.print("Enter the number of rows : ");
		int r = sc.nextInt();
		System.out.print("Enter the number of column : ");
		int c = sc.nextInt();
		int[][] a = new int[r][c];
		for(int i=0;i<r;i++)
			for(int j=0;j<c;j++){
				int N = sc.nextInt();
				a[i][j] = N;
			}
		System.out.println("You entered this Array : ");
		for(int i=0;i<r;i++){
			for(int j=0;j<c;j++){
				System.out.print(a[i][j] + "\t");


			}
			System.out.println();
		}


	}
}
```

Output :-

Command Prompt

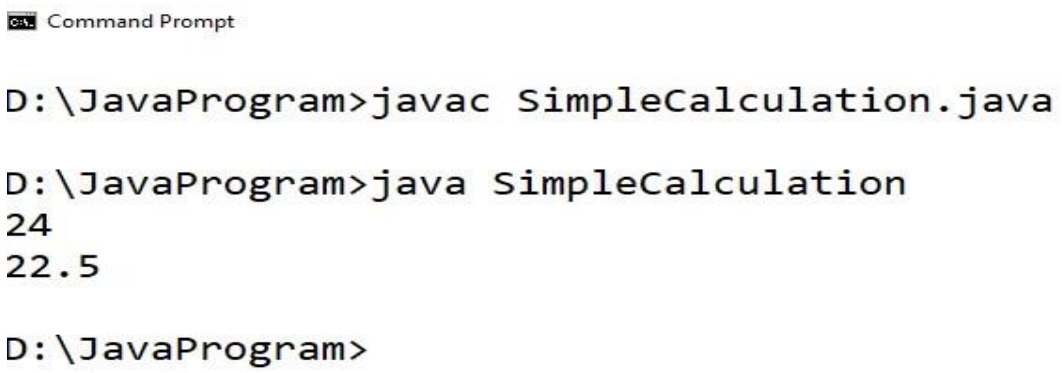
```
D:\JavaProgram>javac Array.java

D:\JavaProgram>java Array
Enter the number of rows : 3
Enter the number of column : 3
1
2
3
4
5
6
6
8
9
You entered this Array :
1       2       3
4       5       6
6       8       9

D:\JavaProgram>
```

Aim :- *To construct a program having classes and methods with object calling in java.*

Code :-

```
import java.util.*;


public class SimpleCalculation
{
	public int sum(int num1,int num2){
		return (num1+num2);
	}
	public double sum(double num1,double num2){
		return (num1+num2);
	}
	public static void main(String[] args)
	{
		SimpleCalculation obj1 = new SimpleCalculation();
		int s1 = obj1.sum(12,12);
		double s2 = obj1.sum(10.0,12.5);
		System.out.println(s1);
		System.out.println(s2);
	}
}
```

Output :-

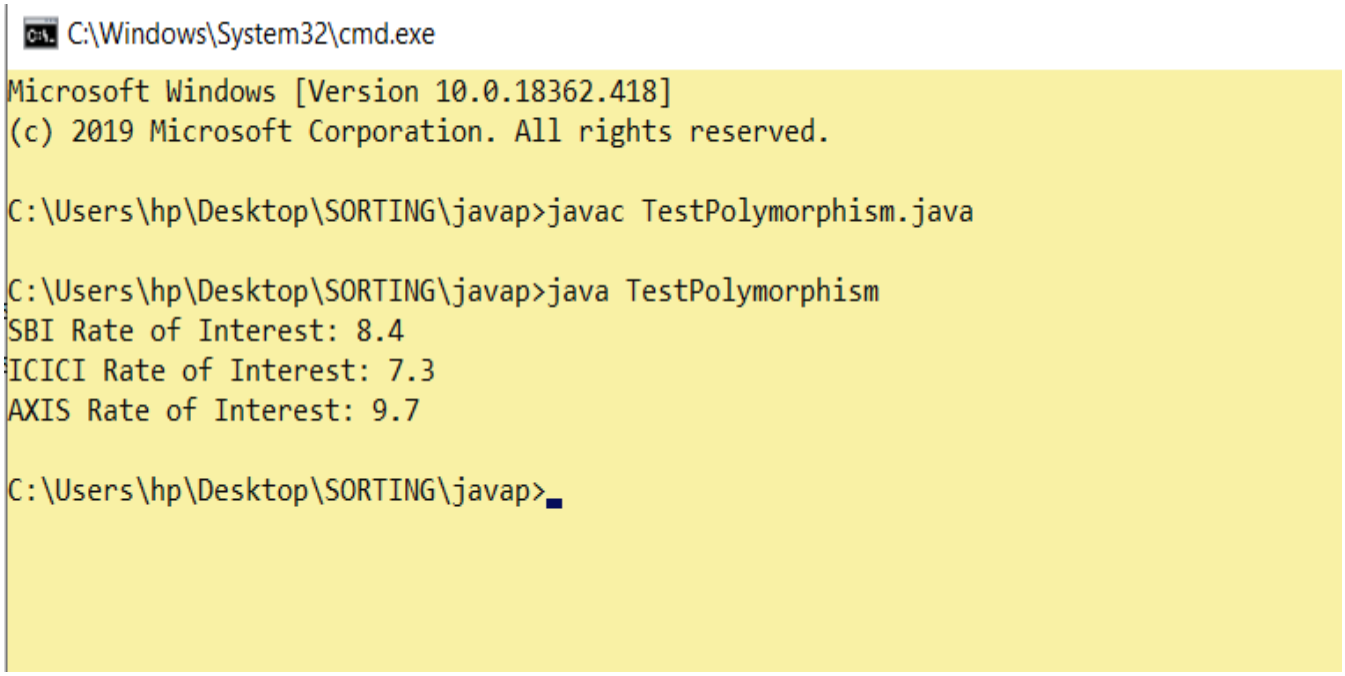


Aim :- *Write a program to implement polymorphism, using methods in java*

Code :-

```
class Bank{
  float getRateOfInterest(){return 0;}
}
class SBI extends Bank{
  float getRateOfInterest(){return 8.4f;}
}
class ICICI extends Bank{
  float getRateOfInterest(){return 7.3f;}
}
class AXIS extends Bank{
  float getRateOfInterest(){return 9.7f;}
}
class TestPolymorphism{
  public static void main(String args[]){
    Bank b;
    b=new SBI();
    System.out.println("SBI Rate of Interest: "+b.getRateOfInterest());
    b=new ICICI();
    System.out.println("ICICI Rate of Interest: "+b.getRateOfInterest());
    b=new AXIS();
    System.out.println("AXIS Rate of Interest: "+b.getRateOfInterest());
  }
}
```

Output :-

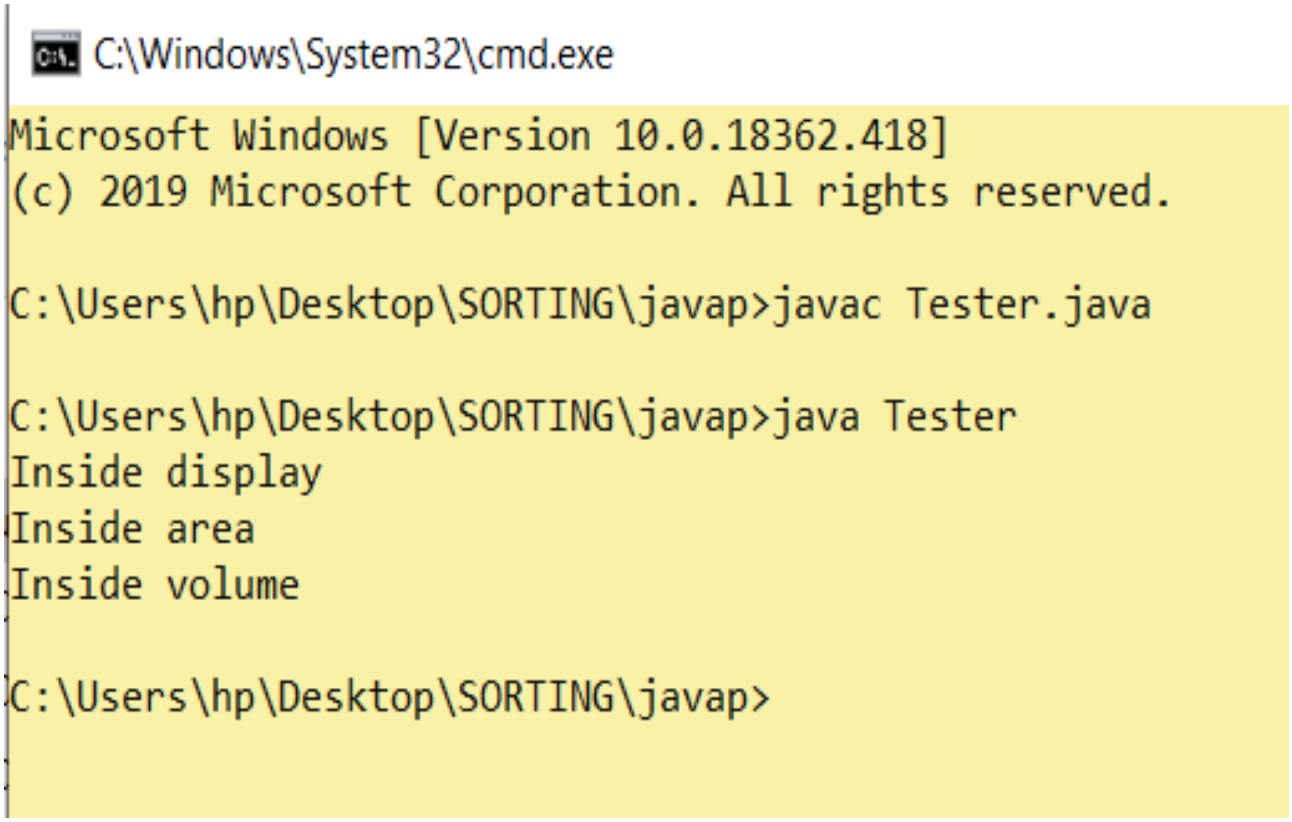

C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.18362.418]
(c) 2019 Microsoft Corporation. All rights reserved.
C:\Users\hp\Desktop\SORTING\javap>javac TestPolymorphism.java
C:\Users\hp\Desktop\SORTING\javap>java TestPolymorphism
SBI Rate of Interest: 8.4
ICICI Rate of Interest: 7.3
AXIS Rate of Interest: 9.7
C:\Users\hp\Desktop\SORTING\javap>

Aim :- *Write a program using Multilevel Inheritance in java.*

Code :-

```
class Shape {
  public void display() {
    System.out.println("Inside display");
  }
}
class Rectangle extends Shape {
  public void area() {
    System.out.println("Inside area");
  }
}
class Cube extends Rectangle {
  public void volume() {
    System.out.println("Inside volume");
  }
}
public class Tester {
  public static void main(String[] arguments) {
    Cube cube = new Cube();
    cube.display();
    cube.area();
    cube.volume();
  }
}
```

Output :-

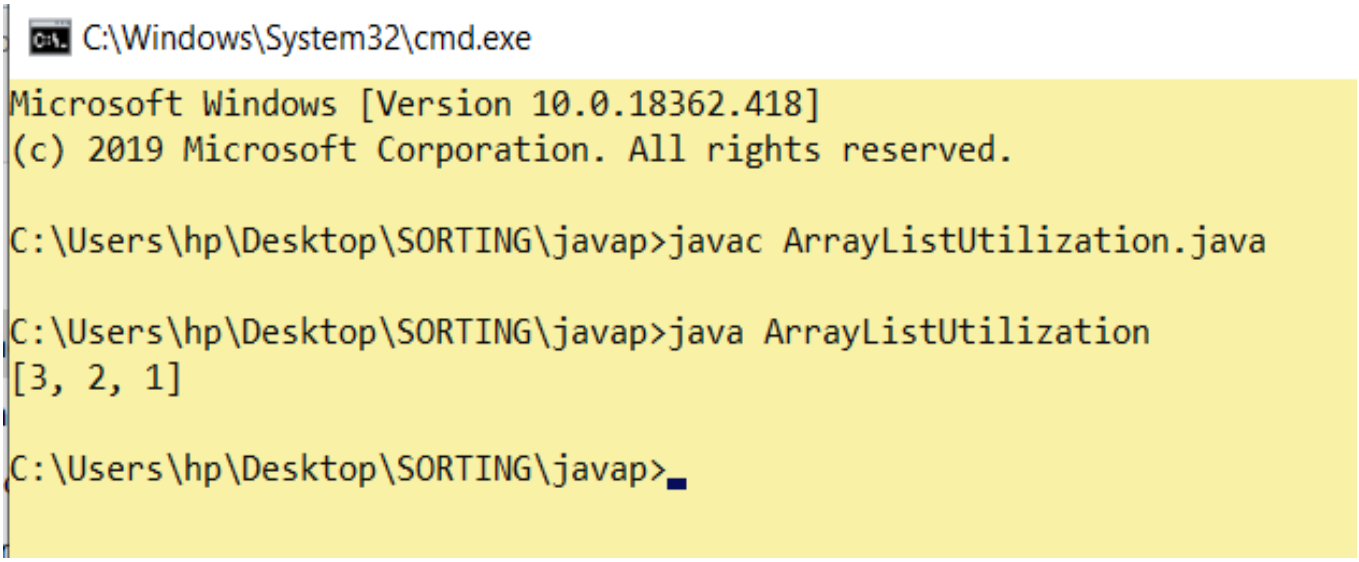

C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.18362.418]
(c) 2019 Microsoft Corporation. All rights reserved.
C:\Users\hp\Desktop\SORTING\javap>javac Tester.java
C:\Users\hp\Desktop\SORTING\javap>java Tester
Inside display
Inside area
Inside volume
C:\Users\hp\Desktop\SORTING\javap>

Aim :- *Write a program to implement packages in java.*

Code :-

```
import java.util.ArrayList;

class ArrayListUtilization {

   public static void main(String[] args) {

      ArrayList<Integer> myList = new ArrayList<>(3);

      myList.add(3);

      myList.add(2);

      myList.add(1);

      System.out.println(myList);

   }

}
```

Output :-

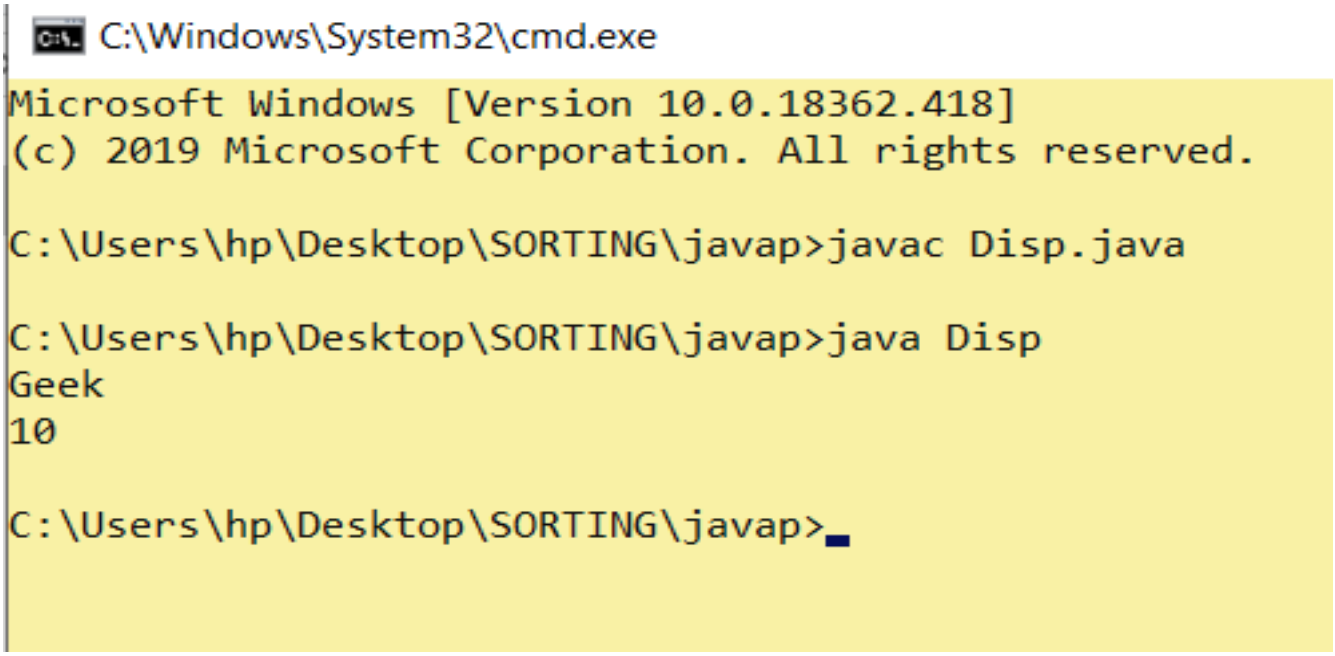


Aim :- *Write a program implementing interface.*

Code :-

```
import java.io.*;
interface in1
{
    final int a = 10;
    void display();
}

class Disp implements in1
{
     public void display()
  {
      System.out.println("Geek");
  }

    public static void main (String[] args)
  {
      testClass t = new testClass();
      t.display();
      System.out.println(a);
  }
}
```

Output :-


C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.18362.418]
(c) 2019 Microsoft Corporation. All rights reserved.
C:\Users\hp\Desktop\SORTING\javap>javac Disp.java
C:\Users\hp\Desktop\SORTING\javap>java Disp
Geek
10
C:\Users\hp\Desktop\SORTING\javap>

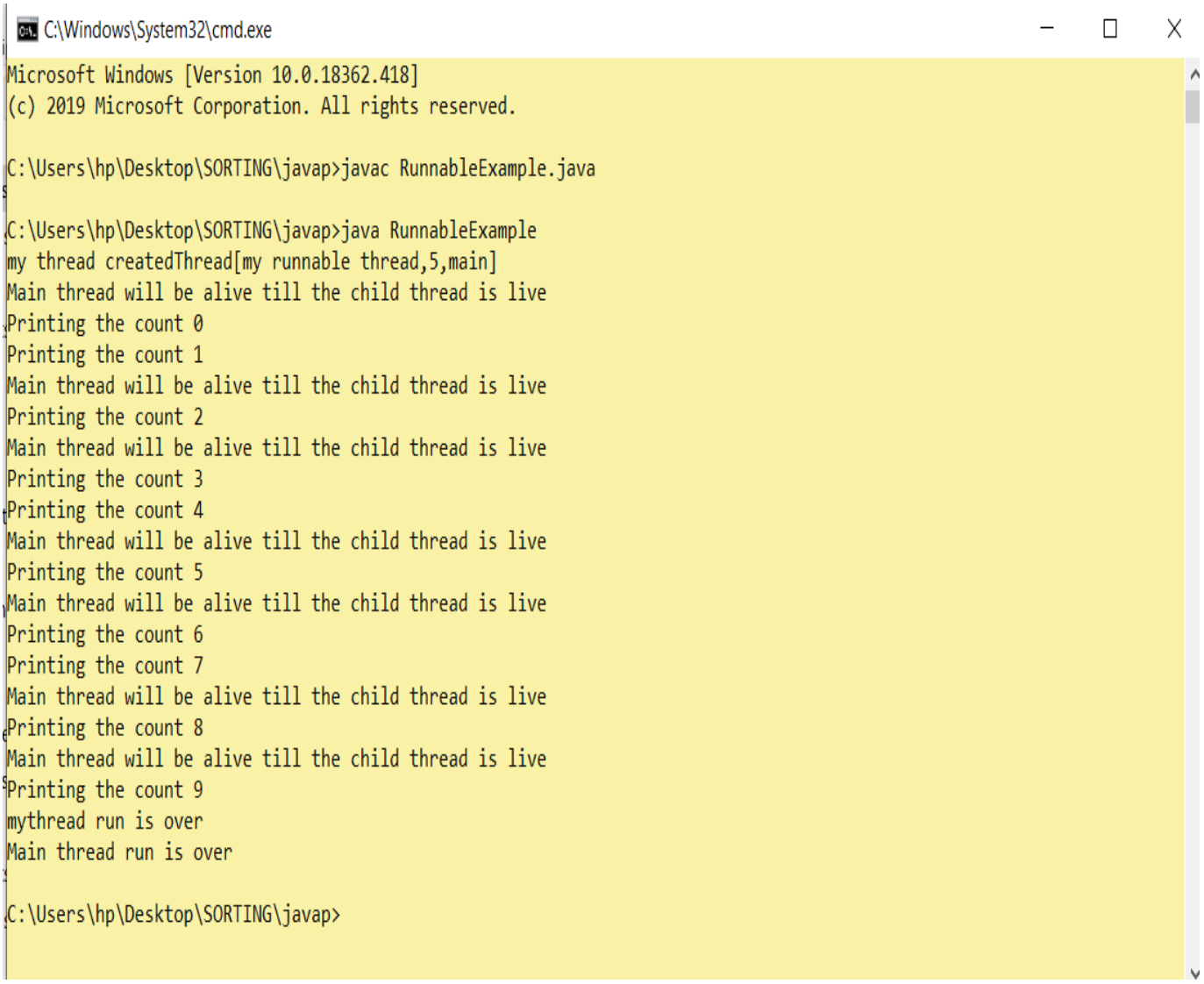
Aim :- *Write a program implementing Multithreading and concept of Exception Handling .*

Code :-

```
class Count implements Runnable
{
  Thread mythread ;
  Count()
  {
    mythread = new Thread(this, "my runnable thread");
    System.out.println("my thread created" + mythread);
    mythread.start();
  }
  public void run()
  {
    try
    {
      for (int i=0 ;i<10;i++)
      {
        System.out.println("Printing the count " + i);
        Thread.sleep(1000);
      }
    }
    catch(InterruptedException e)
    {
      System.out.println("my thread interrupted");
    }
    System.out.println("mythread run is over" );
```

```
  }
}
class RunnableExample
{
   public static void main(String args[])
   {
     Count cnt = new Count();
     try
     {
       while(cnt.mythread.isAlive())
       {
         System.out.println("Main thread will be alive till the child thread is live");
         Thread.sleep(1500);
       }
     }
     catch(InterruptedException e)
     {
       System.out.println("Main thread interrupted");
     }
     System.out.println("Main thread run is over" );
   }
}
```

Output :-


C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.18362.418]
(c) 2019 Microsoft Corporation. All rights reserved.
C:\Users\hp\Desktop\SORTING\javap>javac RunnableExample.java
C:\Users\hp\Desktop\SORTING\javap>java RunnableExample
my thread createdThread[my runnable thread,5,main]
Main thread will be alive till the child thread is live
Printing the count 0
Printing the count 1
Main thread will be alive till the child thread is live
Printing the count 2
Main thread will be alive till the child thread is live
Printing the count 3
Printing the count 4
Main thread will be alive till the child thread is live
Printing the count 5
Main thread will be alive till the child thread is live
Printing the count 6
Printing the count 7
Main thread will be alive till the child thread is live
Printing the count 8
Main thread will be alive till the child thread is live
Printing the count 9
mythread run is over
Main thread run is over
C:\Users\hp\Desktop\SORTING\javap>