LAB-1

1 HEADINGS IN HTML
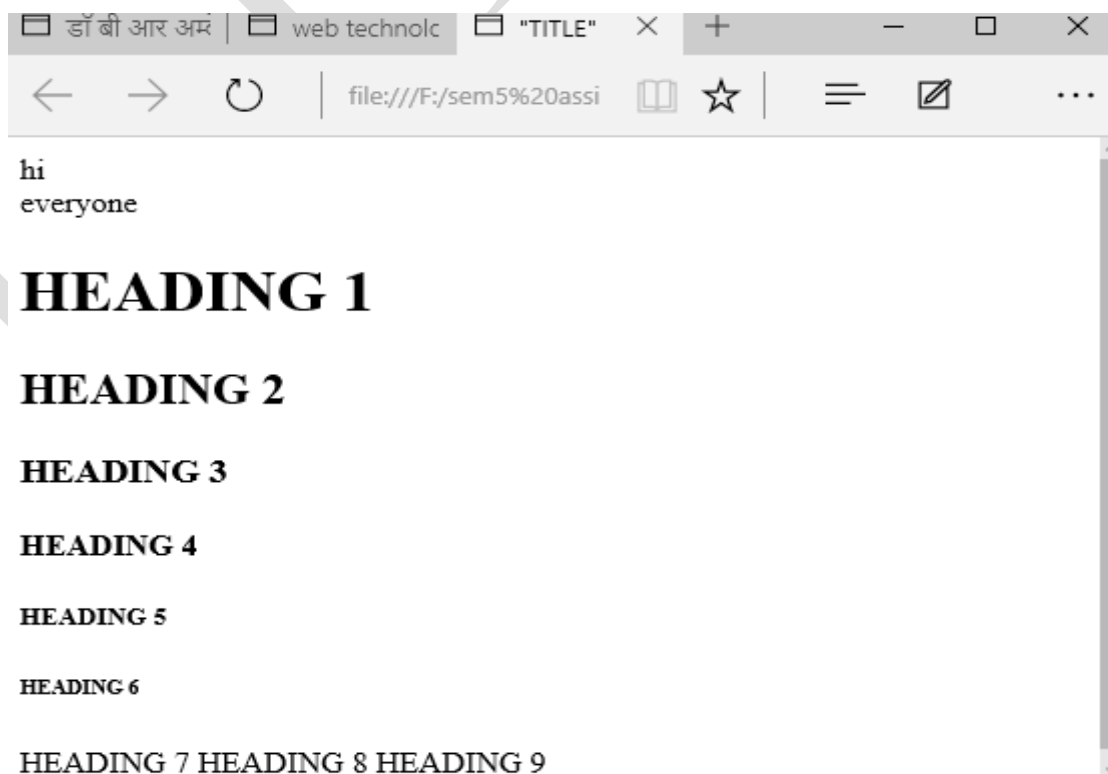
<h1> till <h6> we have a hierarchy of headings with decreasing font size

Html code:

```
    <!DOCTYPE html>
<html>
 <head>hi <br>everyone</head>
    <title>"TITLE"</title>
<body>
 <h1>HEADING 1</h1>
  <h2>HEADING 2</h2>
  <h3>HEADING 3</h3>
   <h4>HEADING 4</h4>
    <h5>HEADING 5</h5>
      <h6>HEADING 6</h6>
     <h7>HEADING 7</h7>
    <h8>HEADING 8</h8>
      <h9>HEADING 9</h9></body></html>
```
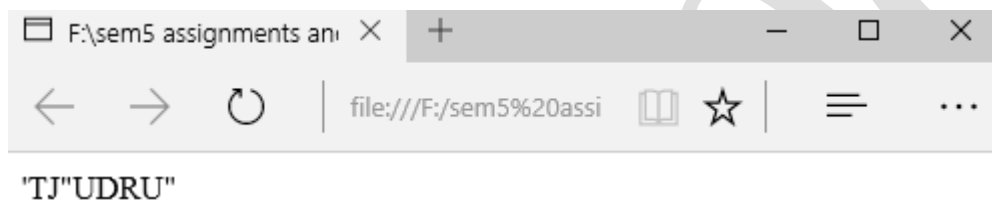
Screenshot:

2 BDO Tag:

Bidirectional tag aids writing orientation both sides left to right as well as right to left.

Html code:

```
<!DOCTYPE html>
<html>
<body><bdo DIR=RTL>"URDU"JT'</bdo></body>
</html>
```

Screenshot:

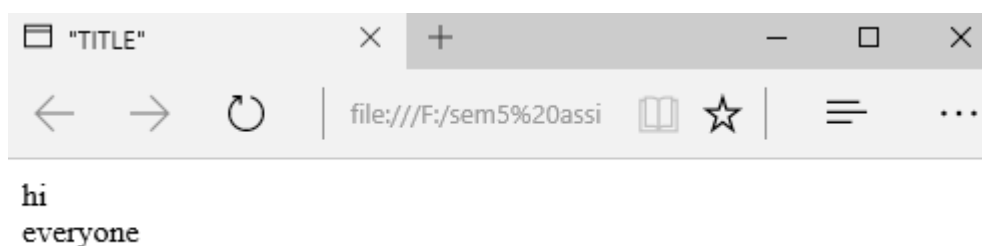//the text within the bdo tag here will be printed in reverse since attribute defined is RTL.

'TJ"UDRU"

3 br Tag:

Control to next line on the webpage

Html code:

```
<!DOCTYPE html>
<html>
<head>hi <br>everyone</head>
<title>"TITLE"</title>
</html>
```
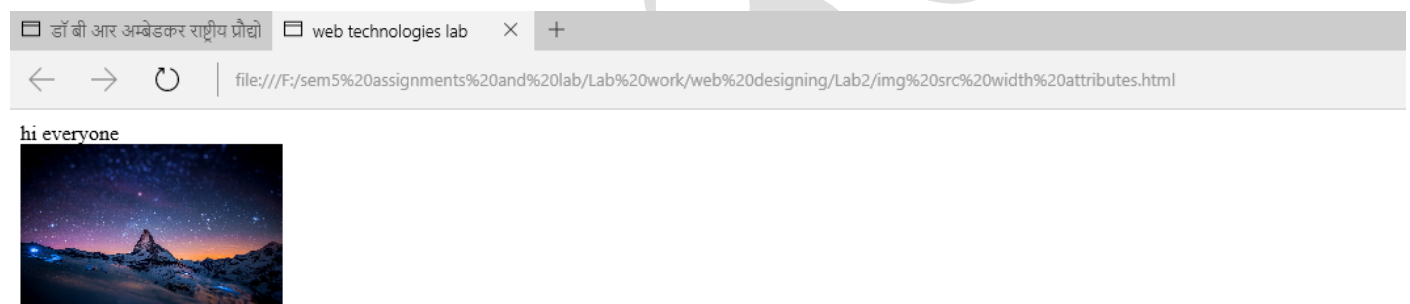
Screenshot:

hi
everyone

4) img Tag:

Inserting an image in an html page

Html code:

```
<!DOCTYPE html>
<html>
 <head>hi  everyone</head>
      <title>web technologies lab</title>
<body><br/>
 <img src="D:\wallpapers\starry-night-over-matterhorn-2880.jpg" alt="lilies"
style="width:200px; height=200px;"> </img>
 </body>
  </html>
```

Screenshot:

5 <hr> and <pre>Tag:

<hr> provides a horizontal rule and <pre>mantains the formatted text

Html code:

```
<!DOCTYPE html>
 <html>
  <head>hi <br>everyone</head><title>web technologies lab</title>
<body> <pre>
   pre tag keeps the formatting of the html as it is<hr>
   #408.housing board colny ,
   Ferozepur city,punjab    152002
       INDIA:-)</pre>
 </body>
  </html>
```

Screenshot(5<hr> and <pre>):

6) Set the colour and Font-style, font-size of the text :

Styling to html page is provided via CSS(Cascading style sheets)   within <style> (internal CSS)

Html code:

```
<!DOCTYPE html>
<html>
 <head>hi <br>everyone</head>
  <title style="text-align:right;">web technologies lab</title>
<body style="background:magenta;">
 <pre>
 <p style="color:red; font-size:200%; font-family:jokerman; text-align:right;">
 pre tag keeps the formatting of the html as it is
 #408.housing <i>board</i> colony ,
 Ferozepur city,punjab    152002
         </p>
     INDIA:-)</pre>
</body>
 </html>
```
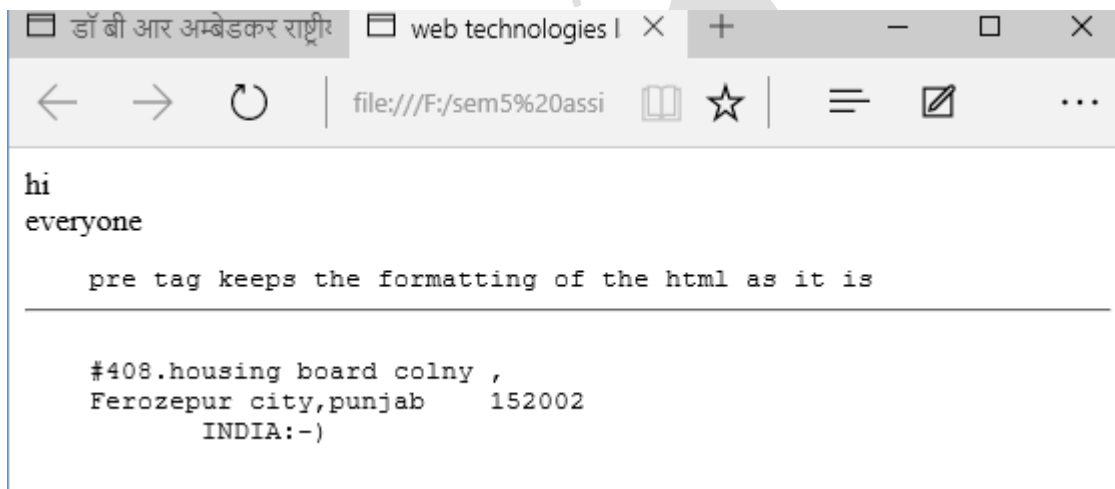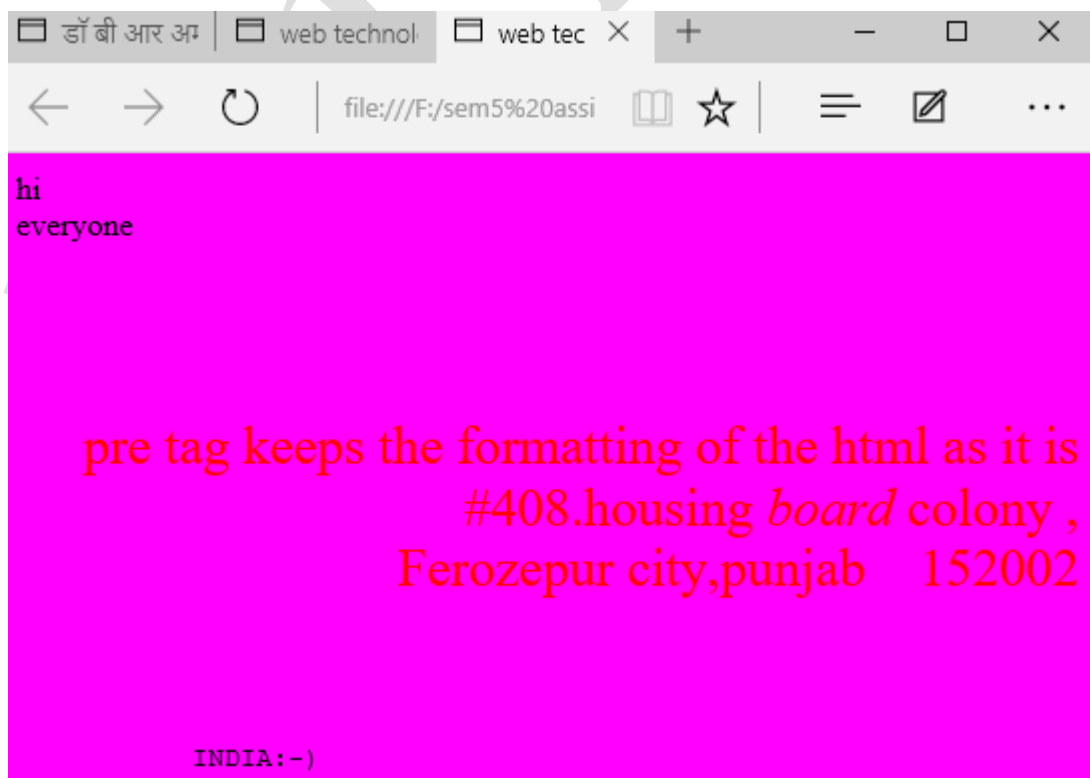
Screenshot:

LAB-2

1 Formatting Elements in html:

There are various formatting elements in html which define the property of the text within that tag

Some of them are

<b> bold ,<i> italic,<em> emphasized text ,<sup> superscript,<sub> subscript ,
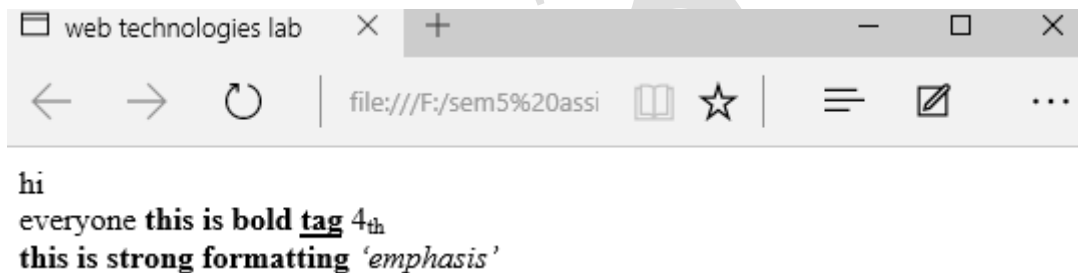
<ins> inserted text,<mark> marked text,<strong>.

Html Code:

```
   <!DOCTYPE html>
<html>
 <head>hi <br>everyone</head><title style="text-align:right;">web technologies lab</title>
<body>
  <b>this is bold <u>tag</u></b> 4<sub>th</sub> <strong><br> this is strong
formatting</strong><em> <q>emphasis</em></q> </body> </html>
```

Screenshot

2 Quotations and abbreviations in html:

<q> for quotation <abbr> tag for abbreviations. Title is added to display content on tooltip.

Html Code:

```
<!DOCTYPE html>
<html>
 <head>
 </head>
 <body>
 <abbr title="Daljit singh Bhalla">dsb</abbr><br>
   said<br>,<q>how are you</q><br>
<address>#408.
```

mdlkfcnsadfhnljka
   housing
 <i>board</i> colony ,
   Ferozepur city,punjab   152002
              </address>
         INDIA:-)
</body>
</html>

Screenshot:

dsb
said
,'how are you'
#408. mdlkfcnsadfhnljka housing
board colony , Ferozepur city,punjab 152002
INDIA:-)

3 Adding Links:

Links are added using <a> tag and source specified in href attribute of <a>.

Html Code:

```
   <!DOCTYPE html>
 <html>
  <head></head>
  <body>
 click on google and google search engine will be dispalyed in the same page(parent frame)<br>
  click on facebook and will open in a new page<br>
  click on codechef and will open in full frame <br>

<a href="http://www.facebook.com" target="_blank"><img
src="C:\Users\Daljit\Pictures\fb.png"  ></a>
  <a href="http://www.google.co.in" target="_parent"><img
src="C:\Users\Daljit\Pictures\google.jpg" style="width:300px;height:150px;"> </a> <br>
<a href="http://www.codechef.com" target="_top"><img
src="C:\Users\Daljit\Pictures\codechef.png" style="width:300px;height:150px;"> </a>
 </body>    </html>
```

Screenshots:
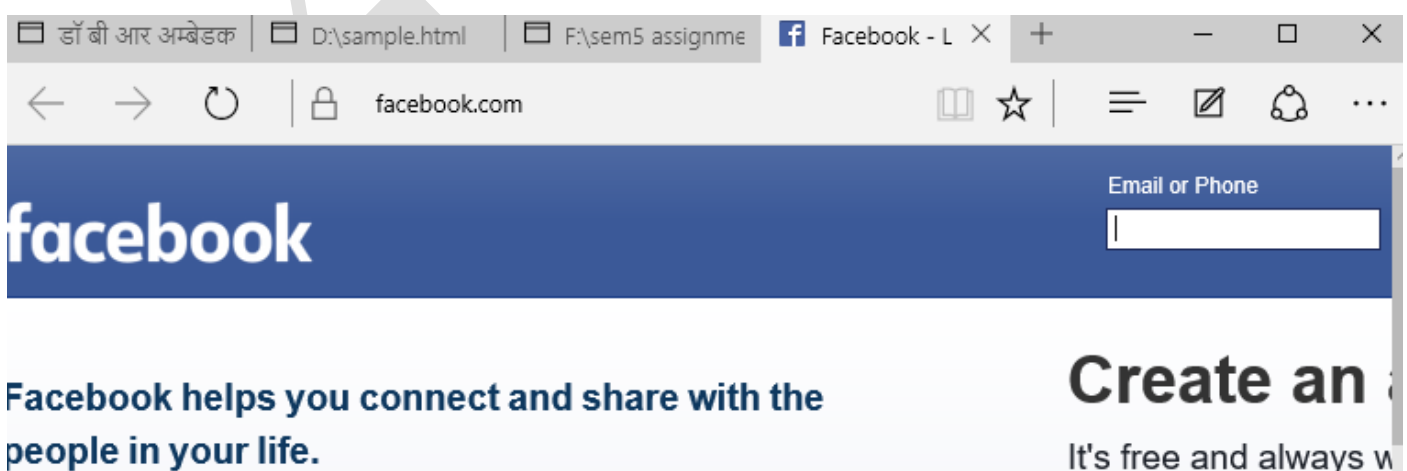

click on google and google search engine will be dispalyed in the same page(parent frame)
click on facebook and will open in a new page
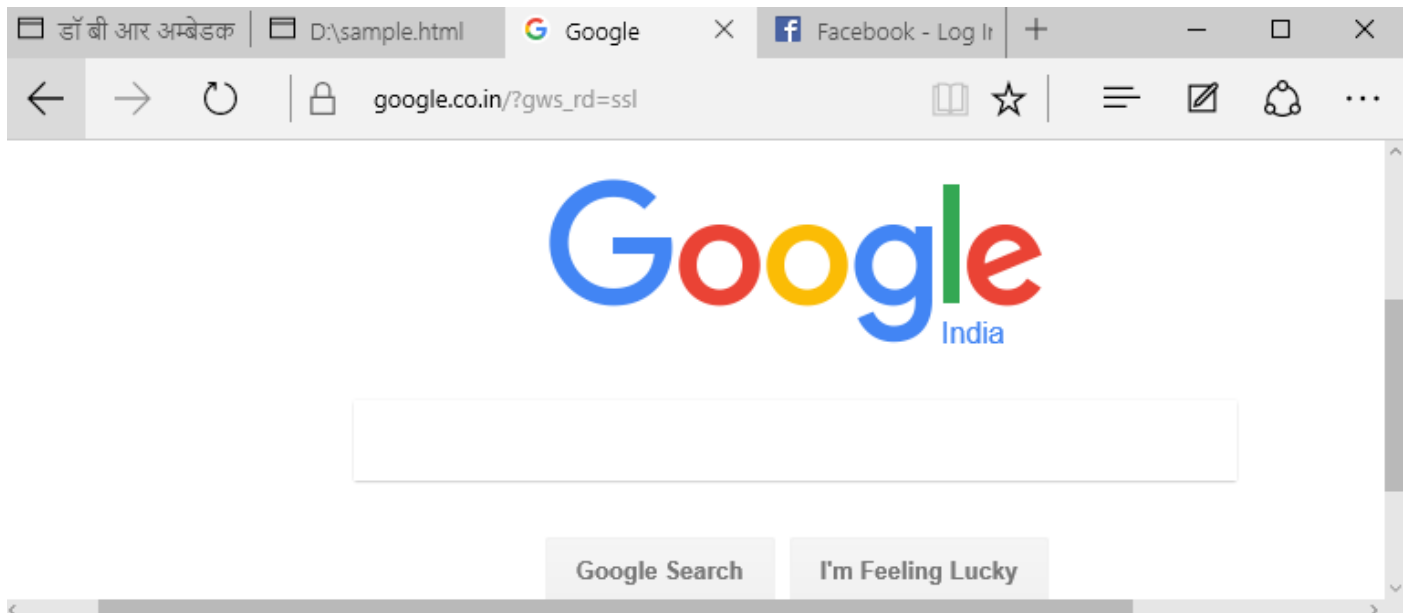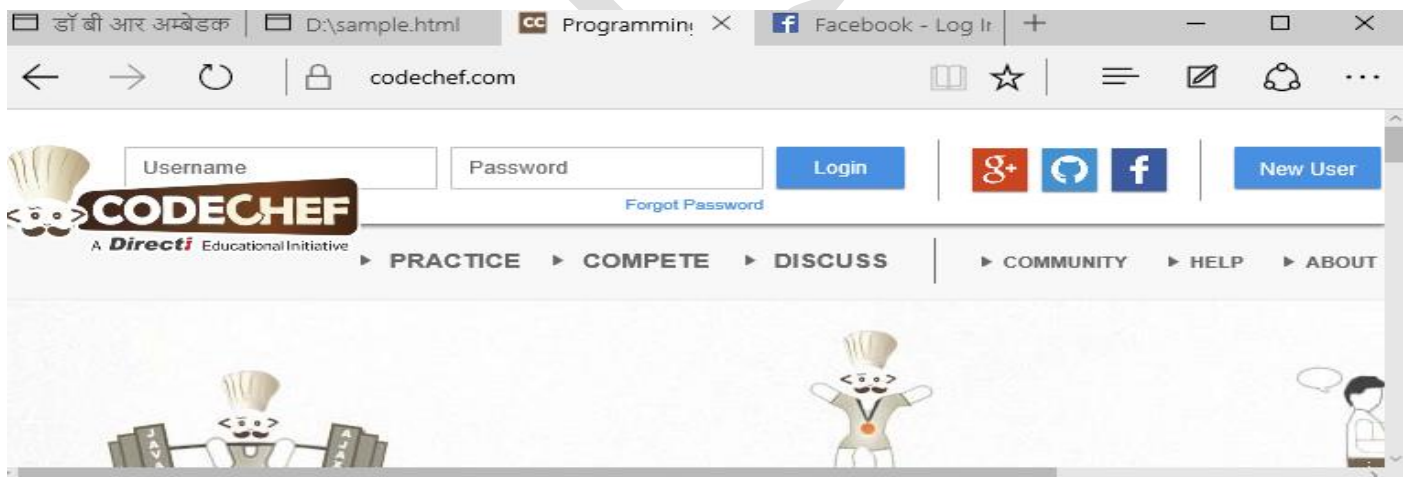click on codechef and will open in full frame

- After clicking on facebook icon:

- After clicking on google: (opens in the same page)

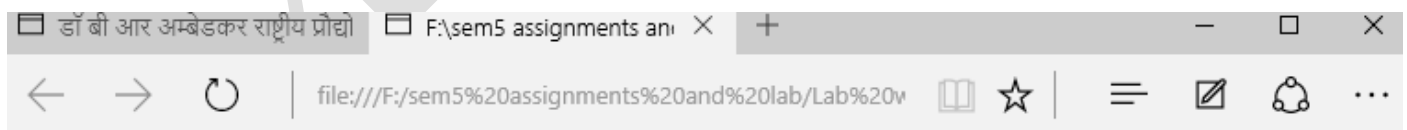After clicking on codechef icon (opens in the full frame)

LAB-3

**1 List implementation with marker attribute(can als ouse unordered list) nested list...
Description list...**

Html Code:

```
<!DOC type>
<html>
  <head>
    </head>
<body>
<ol type="I">
<li>Milk<ol><li>High Fat Milk</li><li>skimmed milk</li>
<li>Tonned milk</li></ol></li>
<li>egg</li>
<li>Chicken</li>
<li>sprouts</li>    </ol></body>
</html>
  Description list starts here<br>
  <dl>
    <dt>
      Description Title 14113063</dt>
<dd>  student in IT branch Daljit Singh </dd>
<dd> He loves to program(This a check for the next tag)</dd>
```

Screenshot:

I. Milk
    1. High Fat Milk
    2. skimmed milk
    3. Tonned milk
II. egg
III. Chicken
IV. sprouts

Description list starts here

Description Title 14113063
    student in IT branch Daljit Singh
    He loves to program(This a check for the next tag)

2 Inline elements <div>,<span>

Containers div is used to style the blocks of content while span is a container for text.
as in the webpage code where we have used via classes using id same way can be done with the span.

Html Code:

```
<!DOC type>
<html>
<head> <style>div.cities{
background-color:blue; padding:10 px;color:green;
}</style></head>
<div style="background-color:black; color:white; padding:20px">
<h2>Heading 2</h2><p>this block is in a div container</div>
</head><body> body part starts here
This is cities div section<br>
<div class="cities">
<h2>Delhi</h2>
<h3>amritsar</h3></div>
</body>
<h1>My Name is  <!--span begins--> <span style="Color:red;">Daljit Singh</span></h1>
</html>
```

Screenshot:

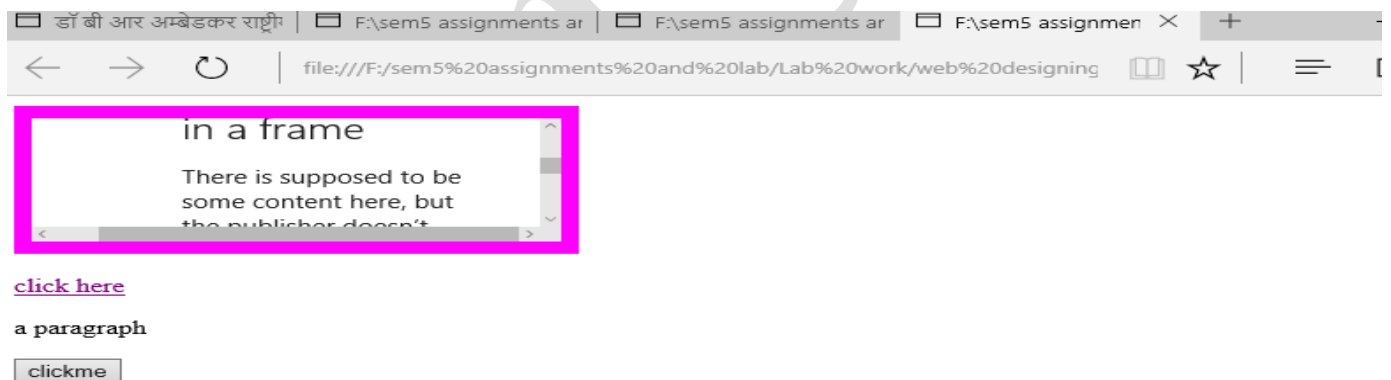## 3 Iframes implemetation and script:

Html code:

```
  <!DOC type>
<html><head>
<script>
  function myfunction(){
document.getElementById("Demo").innerHTML="HELLO js";
}</script>
</head><body>
<iframe  name="i" src="http://www.google.co.in" style="Border:10px solid magenta; height:100;
width100;  align:center;" >Iframe alt text</iframe>
<p><a href="F:\sem 5 assgnts and files\web designing\Div and inline.html"
target="iframe.i">click here</a></p>
<p id="Demo"> a paragraph</p>
<button type="button" onclick="myfunction()">
clickme</button></body></html>
```

Screenshot:

1

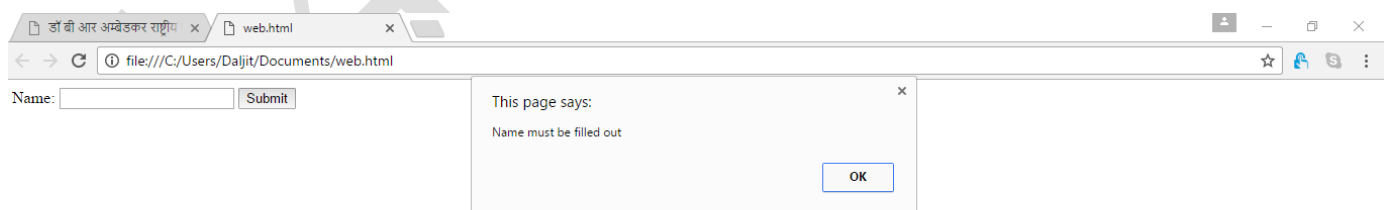2 after clicking the button click me javascript changes content of the webpage

4 Javascript Form Validations:

Javascript can be used in html pages to validate forms.Displays the message as in the script part of the html page.

 Code:

```
  <!DOCTYPE html>
<html>
<head>
<script>
function validateForm() {
    var x = document.forms["myForm"]["fname"].value;
    if (x == null || x == "") {
        alert("Name must be filled out");
        return false;  }}
</script>
</head>
<body>
<form name="myForm"
onsubmit="return validateForm()" method="post">
Name: <input type="text" name="fname">
<input type="submit" value="Submit">
</form>
</body>
</html>
```
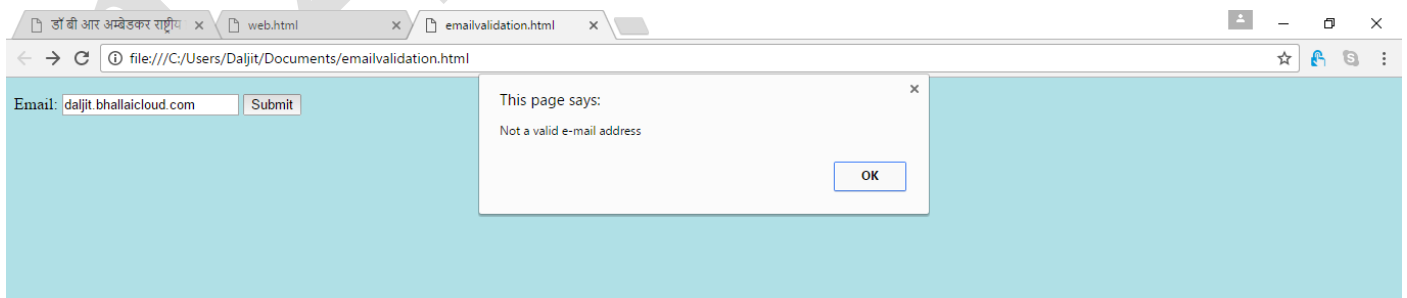
5 Email Validation:

Code:

```html
<!DOCTYPE html>
<html>
<head>
<script>
function validateForm() {
    var x = document.forms["myForm"]["email"].value;
    var atpos = x.indexOf("@");
    var dotpos = x.lastIndexOf(".");
    if (atpos<1 || dotpos<atpos+2 || dotpos+2>=x.length) {
        alert("Not a valid e-mail address");
        return false; }}
</script>
</head>
<body style="background-color:powderblue;">
<p title="i m a tooltip"><mark></mark></p>
<form name="myForm" action="demo_form.asp" onsubmit="return validateForm();" method="post">
Email: <input type="text" name="email">
<input type="submit" value="Submit">
</form>
</body>
</html>
```
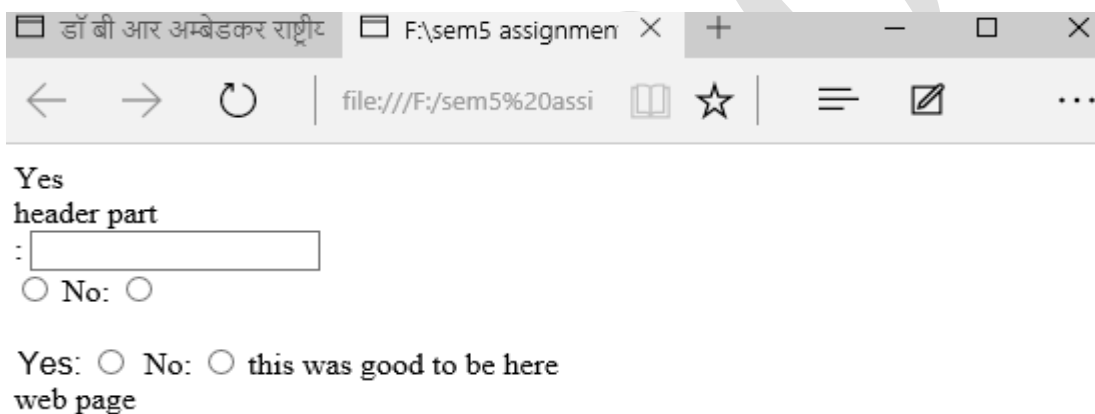
Screenshot:

4 A simple HTML FORM:

HTML forms are used to take input in a predefined format from user and are quiet popular.

Html Code:

```
<!DOC type html>
<html>
 <head><body><label>Yes<header>header part</header>:
<input type="text"><br> <input type="radio" name="yesno" id="yesno" value="yes"> </label>
 <label>No:  <input type="radio" name="yesno" id="yesno" value="no"> </label><br><br>
<label style="font-family:Arial; text-align:left; margin:2">Yes:  <input type="radio" style="font-family:Calibri;"name="yes3no" id="ye1sno" value="yes">
</label> <label>No:  <input type="radio" name="yesno" id="yesno" value="no">
</label><summary>this was good to be here</summary><footer>web page</body>
</head></html>
```
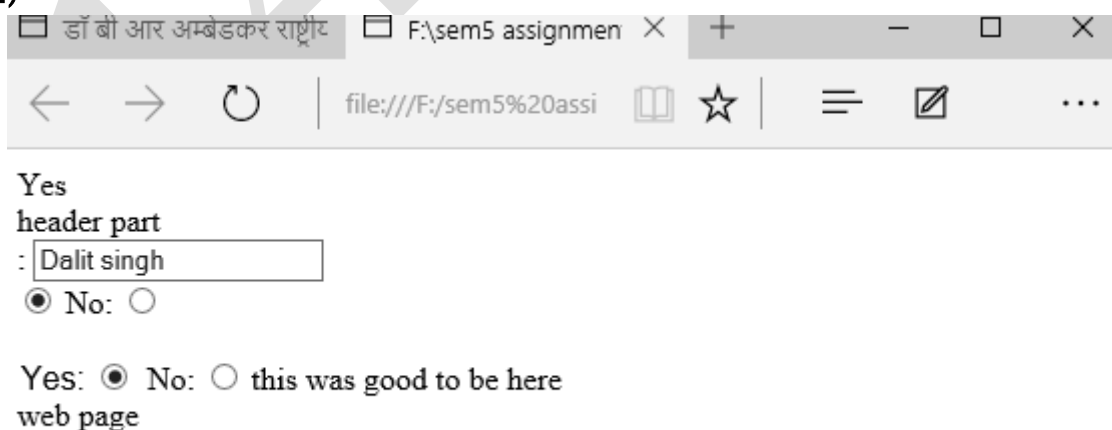
Screenshots:

1)

2)

LAB-4

1 Design CV in HTML.

Html code:

```html
<!DOCTYPE html>
<html>
<head>
 </head>
<title>Daljit's Resume</title>
<body color="blue">
<h2><center style="font-family:'times new roman';">RESUME</center></h2>
<a href="http:\\www.nitj.ac.in"><img height="120"src="F:\sem5 assignments and
lab\Lab work\web designing\images.jpg"></a></img>
<img height="120" width="150"  src="D:\scholarships\Daljit.jpg"
align="right"</img><br><br>
<pre style="font-family:'times new roman';" ><font size="3px">Undergraduate Student
IIIrd year
Contact No. 9463404575
Department of  Information Technology
Email:daljitsb.ip.14@nitj.ac.in
Room No.134, Boys Hostel no.3 , NIT Jalandhar </font></pre><div></div><p ><font
size='3px'>Workshops and Projects<font></p><ul><li>Attended a workshop on
Internet of things and data security organized by TCS <li> Attented a workshop on
Android app development<li>An ongoing project on Graph tool in C++</ul>
<font size='3px'>
Accomplishments<ul><li>  4th topper of Industrial engineering  and upgraded to
Information Technology Engineering</li><li>Good Communication Skills</li>
Skills  <ul><li>C </li><li>  C++ </li><li>JAVA </li><li> Data Structure and
algorithms</li><li> SQL and Databases</li><br>
<pre style='font-family:sans-serif';><font size="2px">
References
Prof Dr. Harsh k Verma
Assocaite professor
Department of C.S.E,NIT Jalandhar
Email:vermah@nitj.ac.in
Declaration I hereby declare that, all the above information I have furnished is genuine to
the best of my knowledge.
Daljit  Singh</font>
</pre>
```

```html
<p>Connect with Daljit on linkedin<a href="http://linkedin.com"><img  height='20'
width='20' src="F:\sem5 assignments and lab\Lab work\web designing\social-linkedin-
box-blue-icon.png"></img></a>
</body>
 </html>
```

Screenshot:

RESUME

Undergraduate Student IIIrd year
Department of Information Technology
Room No.134, Boys Hostel no.3 , NIT Jalandhar

Contact No. 9463404575
Email:daljitsb.ip.14@nitj.ac.in

Workshops and Projects

- Attended a workshop on Internet of things and data security organized by TCS
- Attented a workshop on Android app development
- An ongoing project on Graph tool in C++

Accomplishments

- 4th topper of Industrial engineering and upgraded to Information Technology Engineering
- Good Communication Skills
  Skills
  - C
  - C++
  - JAVA
  - Data Structure and algorithms
  - SQL and Databases

References
Prof Dr. Harsh k Verma
Assocaite professor
Department of C.S.E,NIT Jalandhar
Email:vermah@nitj.ac.in
Declaration I hereby declare that, all the above information I have furnished is genuine to the best of my knowledge.

Daljit Singh

Connect with Daljit on linkedin

LAB-5

1 Rowspan and colspan in a Table:

Rowspan & Colspan increase the span of rows and columns within a table.

Html Code:

```
<html>
<head>
<style>
    table,th,td { border:2px solid black;}
    table {height:100;width:100;border-collapse:collapse;}
    th,td {padding:5px;}
    th{text-align:center;}</style></head>
<body style="background-color:lightblue">
<center><h1>Nit Jalandhar </h1></center><br>
<pre><img src="F:\sem5 assignments and lab\Lab work\web designing\lab7\sun.gif"
width=130 height=90 align=right>
<center>        <a href='http://www.nitj.ac.in' target=_blank><img src="F:\sem5 assignments
and lab\Lab work\web designing\lab7\loggo.gif" height=90 width=90 ></a></center>
</pre><br>
<table align="center"><tr>
<th rowspan="2">First Name </th><th >Last Name </th><th>Roll Number </th></tr>
<tr><td>Deepanshu<img src="F:\sem5 assignments and lab\Lab work\web
designing\lab7\new_icon.gif"></td><td>setia</td>
<td>14124016</td></tr><tr><td>Daljit</td><td>Bhalla</td>
<td>14113063</td></tr> </table></body></html>
```

Screenshot

LAB-6

Introduction to XML: (ALBUMS CATALOGUE)

XML FILE:

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/css" href="cd_catalog.css"?>
<CATALOG>
  <CD>
    <TITLE>WAKAWAKA</TITLE>
    <ARTIST>SHAKIRA</ARTIST>
    <COUNTRY>South Africa</COUNTRY>
    <COMPANY>Columbia</COMPANY>
    <PRICE>10.90</PRICE>
    <YEAR>2010</YEAR> </CD>
  <CD>
    <TITLE>Sorry</TITLE>
    <ARTIST>Justin Bieber</ARTIST>
    <COUNTRY>UK</COUNTRY>
    <COMPANY>CBS Records</COMPANY>
    <PRICE>9.90</PRICE>
    <YEAR>2015</YEAR> </CD>
  <CD>
    <TITLE>I TOOK A PILL IN IBIZA</TITLE>
    <ARTIST>Mike Posner</ARTIST>
    <COUNTRY>USA</COUNTRY>
    <COMPANY>RCA</COMPANY>
    <PRICE>9.90</PRICE>
    <YEAR>2015</YEAR> </CD>
</CATALOG>
```

CSS FILE:

```
CATALOG {
  background-color: #ffffff;
  width: 100%;
}
CD {
  display: block;
  margin-bottom: 30pt;
  margin-left: 0;
}
TITLE {
```

```css
    display: block;
    color: #ff0000;
    font-size: 20pt;
}
ARTIST {
    display: block;
    color: #0000ff;
    font-size: 20pt;
}
COUNTRY, PRICE, YEAR, COMPANY {
    display: block;
    color: #000000;
    margin-left: 20pt;
}
```

Screenshot:

Lab-7

Develop web application for Login Form

HTML Code

```
<!Doctype html>
<html>

<body>
<center>

<form action="LoginServlet">
<h1>username:</h1><input type="text" name="name"><br/>
<h1>password:</h1><input type="password" name="password"><br/><br/>
<input type="submit" value="Login">
</form>
</center>
</body>
</html>
```

XML Code

```
<?xml version="1.0"?>
<web-app>
<servlet>
<servlet-name>LoginServlet</servlet-name>
<servlet-class>LoginServlet</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>LoginServlet</servlet-name>
<url-pattern>/LoginServlet</url-pattern>
</servlet-mapping>
</web-app>
```

Servlet Code

```
//loginservelet.java
import javax.servlet.*;
import java.io.*;
import java.sql.*;
import javax.servlet.http.*;
```

```java
public class LoginServlet extends GenericServlet
{
public void service(ServletRequest req,ServletResponse res)throws ServletException,IOException
{
try
{
String s1=req.getParameter("name");
String s2=req.getParameter("password");

  res.setContentType("text/html");
  PrintWriter out=res.getWriter();
  if(s1.equals("ravi12348") && s2.equals("warrior"))
  out.println("<h1>" +"Login Successful"+"</h1>");
else
out.println("<h1>" +"Login Failed"+"</h1>");
out.close();
}
catch(Exception e)
{
e.printStackTrace();
}
}
}
```
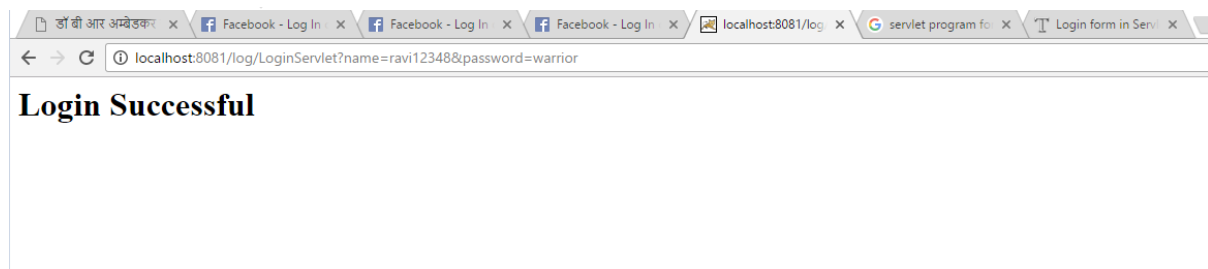
Output

username:

password:

Login

Login Successful

Develop web application for Student Registration

HTML Code

```html
<!Doctype html>
<html>
<body>
<script>
function validate()
{
var name=document.forms["form1"]["name"].value;
var i,len=name.length;

for(i=0;i<len;i++)
{
if(!(name[i]>='a' && name[i]<='z')||(name[i]>='A' && name[i]<='Z')||name[i]==" "))
{
window.alert("Invalid Name");
return false;
}
}

var num=document.forms["form1"]["number"].value;

if(isNaN(num))
{
window.alert("Invalid Mobile Number");
return false;
}
else if(num.length!=10)
{
window.alert("Invalid Mobile Number");
return false;
}


var address=document.forms["form1"]["email"].value; if(address.indexOf(".com")==-1||
address.indexOf("@"))
```

```
{
window.alert("Invalid Email Address");
return false;
}
var num=document.forms["form1"]["roll_number"].value;
if(isNan(num))
{
window.alert("Invalid Roll Number");
return false;
}

return true;
}
</script>
<h1 style="text-align:center">Student Registration Form</h1>

<form onSubmit="return validate()" action="LoginServlet" name="form1">
<fieldset>
<legend>Student Information</legend>
Enter your Name:<input type="text" name="name" required></br></br>
Enter your Phone Number:<input type="text" name="number" required></br></br>
Enter your Email:<input type="text" name="email" required></br></br>
Enter your Roll Number:<input type="text" name="roll_number" required></br></br>
Enter your Address:<input type="text" name="address" ></br></br>

<input type="submit" value="submit">
</fieldset>
</form>

</body>
</html>
```
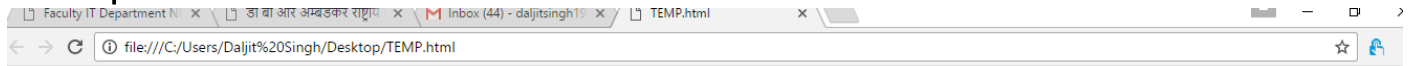
XML Code

```
<web-app>
<servlet>
<servlet-name>LoginServlet</servlet-name>
<servlet-class>LoginServlet</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>LoginServlet</servlet-name>
<url-pattern>/LoginServlet</url-pattern>
</servlet-mapping>
```

</web-app>

Servlet Code

```java
//loginservelet.java
import javax.servlet.*;
import java.io.*;
import java.sql.*;
import javax.servlet.http.*;

public class LoginServlet extends GenericServlet
{
public void service(ServletRequest req,ServletResponse res)throws ServletException,IOException
{
try
{
String s1=req.getParameter("name");
String s2=req.getParameter("number");
String s3=req.getParameter("email");
String s4=req.getParameter("roll_number");
String s5=req.getParameter("address");
PrintWriter pw=res.getWriter();
pw.println("Name- "+s1);
pw.println("Mobile Number- "+s2);

pw.println("Email-"+s3);
pw.println("Roll Number-"+s4);
pw.println("Address-"+s5);

}
catch(Exception e)
{
e.printStackTrace();}}
}
```

Output

Name- Daljit Singh Bhalla
Mobile-8556881028
Email-daljitsingh1995@gmail.com
RollNo- 14113063
Address- BH3 NITJalandhar

Lab-9

Develop web application for taking price and quantity of products from user and displaying bill of user in another page

HTML Code

```
<!Doctype html>
<html>
<body>
<h1 style="text-align:center">Welcome to NIT Store</h1>
<h3>Enter the product quantity and price</h3>
<form name="form1" action="Consumer">
<table>
<tr>
<th>Product</th>
<th>Price</th>
<th>Quantity</th>
</tr>

<tr>
<td>Soft Drink</td>
<td><input type="text" name="Soft1" ></td>
<td><input type="text" name="Soft2" ></td>
</tr>

<tr>
<td>Biscuit</td>
<td><input type="text" name="Bis1" ></td>
<td><input type="text" name="Bis2" ></td>
</tr>


<tr>
<td>Mobile</td>
<td><input type="text" name="Mob1" ></td>
<td><input type="text" name="Mob2" ></td>
</tr>


<tr>
```
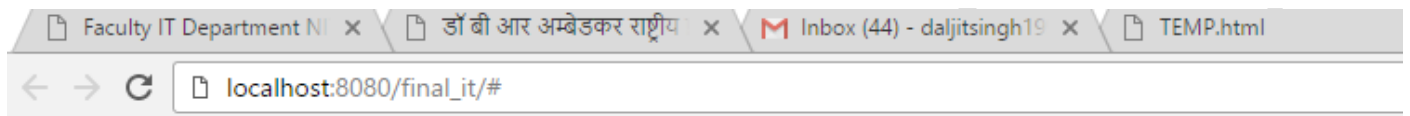
```html
<td>Laptop</td>
<td><input type="text" name="Lap1" ></td>
<td><input type="text" name="Lap2" ></td>
</tr>


<tr>
<td>Pen Drive</td>
<td><input type="text" name="Pen1" ></td>
<td><input type="text" name="Pen2" ></td>
</tr>
</table>
<input type="submit" value="Submit">
</form>
</body>
</html>
```

XML Program

```xml
<?xml version="1.0"?>
<web-app>
<servlet>
<servlet-name>Consumer</servlet-name>
<servlet-class>Consumer</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>Consumer</servlet-name>
<url-pattern>/Consumer</url-pattern>
</servlet-mapping>
</web-app>
```

Servlet Program

```java
import javax.servlet.*;
import java.io.*;
import java.sql.*;
import javax.servlet.http.*;

public class Consumer extends GenericServlet
{
public void service(ServletRequest req,ServletResponse res)throws ServletException,IOException
{
try
{
```

```java
String Soft_Drink1=req.getParameter("Soft1");
String Soft_Drink2=req.getParameter("Soft2");
String Biscuit1=req.getParameter("Bis1");
String Biscuit2=req.getParameter("Bis2");
String Mobile1=req.getParameter("Mob1");
String Mobile2=req.getParameter("Mob2");
String Laptop1=req.getParameter("Lap1");
String Laptop2=req.getParameter("Lap2");
String Pen_Drive1=req.getParameter("Pen1");
String Pen_Drive2=req.getParameter("Pen2");

int a1=Integer.parseInt(Soft_Drink1)*Integer.parseInt(Soft_Drink2);
int a2=Integer.parseInt(Biscuit1)*Integer.parseInt(Biscuit2);
int a3=Integer.parseInt(Mobile1)*Integer.parseInt(Mobile2);
int a4=Integer.parseInt(Laptop1)*Integer.parseInt(Laptop2);
int a5=Integer.parseInt(Pen_Drive1)*Integer.parseInt(Pen_Drive2);
int total=a1+a2+a3+a4+a5;

PrintWriter out=res.getWriter();
   res.setContentType("text/html");
out.println("<h2>"+"Total Price for Soft Drink: "+ a1+"</h2>");
out.println("<h2>"+"Total Price for Biscuit: "+ a2+"</h2>");
out.println("<h2>"+"Total Price for Mobile: "+ a3+"</h2>");
out.println("<h2>"+"Total Price for Laptop: "+ a4+"</h2>");
out.println("<h2>"+"Total Price for Pen Drive: "+ a5+"</h2>");
out.print( "<h1>"+"Total Price : "+total+"</h1>");
out.close();
}
catch(Exception e)
{
e.printStackTrace();
}
}
}
```

Output

Welcome to NIT Store

Enter the product quantity and price

Product	Price	Quantity
Soft Drink	40	3
Biscuit	20	5
Mobile	10000	1
Laptop	20000	1
Pen Drive	400	3

Submit

localhost:8081/Consume/Consumer?Soft1=40&Soft2=3&Bis1=20&Bis2=5&Mob1=10000&Mob2=1&Lap1=20000&Lap2=1&Pen1=400&Pen2=3

Total Price for Soft Drink: 120

Total Price for Biscuit: 100

Total Price for Mobile: 10000

Total Price for Laptop: 20000

Total Price for Pen Drive: 1200

Total Price : 31420