

EX NO:1a
DATE:17/08/2021

CREATION OF STATIC WEB PAGE USING HTML

QUESTION:

Design a website using static web pages for tutorials like HTML

AIM:

To Develop Design a website using static web pages for tutorials like HTML

DESCRIPTION:

- * Head tag-<head></head>
- * Title tag-<title>.....</title>
- * paragraph tag-<p></p>
- * image tag-
- * heading tag-<h1>.....</h1>

PROGRAM:

```
<!DOCTYPE html>
<html>
<body>
<h1><center> WHY PYTHON???</center></h1>

<CENTER></center>
<center><p>The python language is one of the most accessible programming
languages available because it has simplified syntax and not complicated,</P>
<P>which gives more emphasis on natural language. Due to its ease of learningand
usage,</P>
<P> python codes can be easily written and executed much faster than other
programming languages.</p></center>
<center><a href="https://www.python.org/about/gettingstarted/">More Idea on
Python!</a></center>
</body>
</html>
```

OUTPUT:



RESULT:

Thus the Html webpage program using static is implemented successfully.

EX.NO:1(B)

17/08/20

IMPLEMENTATION OF ANCHOR TAGS

PROBLEM STATEMENT:

Create a website for your college displaying department information using Anchor tags.

AIM:

To Create a website for your college displaying department information using Anchor tags.

DESCRIPTION:

Heading Tag: <h>

HTML defines six levels of headings. A heading element implies all the font changes, paragraph breaks before and after, and any white space necessary to render the heading. The heading elements are H1, H2, H3, H4, H5, and H6 with H1 being the highest (or most important) level and H6 the least.

Paragraph Tag: <p>

The HTML paragraph tag is the most often used because the majority of content on a web will be in this tag. It separates itself from the other paragraphs to form a well-organized document. Much like the other tags it has an opening tag, <p>, and a closing tag, </p>.

List Tag:

The HTML lists tag is used for specifying a list item is ordered, unordered and menu lists. Lists commonly are found in documents, including web pages. They are an easy and effective way to itemize such things as elements, components, or ingredients.

Image Tag:

The HTML tag is used to embed an image in a web page. Images are not technically inserted into a web page; images are linked to web pages. The tag creates a holding space for the referenced image. The tag is empty, it contains attributes only, and does not have a closing tag.

Anchor Tag:<a>

The <a> tag (anchor tag) in HTML is used to create a hyperlink on the webpage. This hyperlink is used to link the webpage to other webpages.

Table Tag:<table>

HTML table tag is used to display data in tabular form (row * column). There can be many columns in a row. We can create a table to display data in tabular form, using <table> element, with the help of <tr>, <td>, and <th> elements.

PROGRAM:

(i) HOMEPAGE.html

```
!DOCTYPE html>
<html>
<head>
<title>MSEC Website</title>
</head>
<body leftmargin="100" rightmargin="100">

<center><font face="Algerian" size="10">MEENAKSHI SUNDARARAJAN
ENGINEERING COLLEGE</font></center>
<center><font face="Algerian"><h1 style="font-size: 20px;">Kodambakkam,
Chennai</h1></font></center>






<p style="font-size: 18px;">Prof. K.R. Sundararajan, one of the eminent educationists
of South India, established Indian Institute of Engineering Technology (IIET) in the year
1947 when there were only a few Engineering Colleges in the state and young aspirants could
not find opportunities to become engineers. Prof. KRS guides them to fulfill their dreams to
become full-fledged engineers through the AMIE programme. Since then, the alumni of IIET
have been occupying high ranking positions in state, central government and corporate
sectors and many of them have turned out to become entrepreneurs running profitable small
scale Industries and businesses.</p>
```

<p style="font-size: 18px;">Prof. KRS established Meenakshi College for Women in the same campus in 1975. This college is best and the most prestigious women's colleges in Tamilnadu with a strength of 3000 students. It is an aided institution affiliated to the University of Madras and has been a pioneer in the field of higher education for women for the past three decades. In his last years, Prof. KRS had a dream of starting a full-blown Engineering College to give quality education in various branches of engineering. His dream become when Meenakshi Sundararajan Engineering College started functioning in July 2001.</p>

<h2><u>SECRETARY:</u></h2>

<p style="font-size: 20px;">Dr.K.S.BABAI, B.Sc.,B.E., MS FIE MISTE PhD</p>

<h2><u>VISION:</u></h2>

<p style="font-size: 18px;">To impart state-of- the art technical education, including sterling values and shining character, producing engineers who contribute to nation building thereby achieving our ultimate objective of sustained development of an unparalleled society, nation and world at large.</p>

<h2><u>MISSION:</u></h2>

<p style="font-size: 18px;">Meenakshi Sundararajan Engineering college, Chennai constantly strives to be a Centre of Excellence with the singular aim of producing students of outstanding academic excellence and sterling character to benefit the society, our nation and the world at large.</p>

<p style="font-size: 18px;">To achieve this, the college ensures</p>

<li style="font-size: 18px;">Continuous upgradation of its teaching faculty to ensure a high standard of quality education and to meet the ever-changing needs of the society

<li style="font-size: 18px;">Constant interaction with its stakeholders

<li style="font-size: 18px;">Linkage with other educational institutions and industries at the national and international level for mutual benefit

<li style="font-size: 18px;">Provision of research facilities and infrastructure in line with global trends

<li style="font-size: 18px;">Adequate opportunities and exposure to the students through suitable programs, to mould their character and to develop their personality with an emphasis on professional ethics and moral values

<h2><u>PLACEMENTS:</u></h2>

<p style="font-size: 18px;">Meenakshi Sundararajan Engineering College is one of the most reputed colleges under Anna University. The college aims at providing the best

placement opportunities to its students. Meticulous efforts are taken by the Placement Cell to ensure that the students are recruited by top-notch companies in the industry. The Placement Cell functions under the leadership of a Placement Officer, faculty representatives and Coordinators from each and every department. The ultimate aim of the Placement Cell is to achieve 100% placement. Reputed institutes are hired to provide training for aptitude tests, group discussions, preparations for Technical and HR interviews. This training grooms our students to face the campus interviews with confidence.</p>

```
<ul>
    <li style="font-size: 18px;">Presentation Skills</li>
    <li style="font-size: 18px;">Verbal Reasoning</li>
    <li style="font-size: 18px;">Critical Reasoning</li>
    <li style="font-size: 18px;">Logical Reasoning</li>
    <li style="font-size: 18px;">Group Discussion</li>
    <li style="font-size: 18px;">Interpersonal Skills</li>
</ul>
<h2><u>DEPARTMENTS:</u></h2>
<a href="Departments.html">Click here to see about departments</a>
<h2><u>FOR MORE INFORMATION CONTACT US:</u></h2>
<p style="font-size: 18px;"><u>ADDRESS:</u></p>
<p style="font-size: 18px;">Meenakshi Sundararajan Engineering College</p>
<p style="font-size: 18px;">363, Arcot Road, Kodambakkam,</p>
<p style="font-size: 18px;">Chennai 600024</p>
<p style="font-size: 18px;">Tamilnadu, India</p>
<p style="font-size: 18px;">Telephone: 044 24801636</p>
<p style="font-size: 18px;">Fax: 044 24811103</p>
<p style="font-size: 18px;">Email : principal@msec.edu.in</p>
</body>
</html>
```

(ii) DEPARTMENTS.html :-

```
<!DOCTYPE html>

<html>

<head>
    <title>MSEC Website</title>
    <style>
        table{
            font-family: 'Times New Roman', Times, serif;
            border-collapse: collapse;
            width: 100%;
        }
        td, th{
            border: 2px solid black;
            text-align: left;
            padding: 8px;
        }
    </style>
</head>

<body leftmargin="100" rightmargin="100">
    
    <center><font face="Algerian" size="10">MEENAKSHI SUNDARARAJAN
ENGINEERING COLLEGE</font></center>
    <center><font face="Algerian"><h1 style="font-size: 20px;">Kodambakkam,
Chennai</h1></font></center>
    <center><font face="Algerian"><h1 style="font-size:
40px;">DEPARTMENTS</h1></font></center>
    <table border="5">
        <tr>
            <th>S.No</th>
            <th>DEPARTMENT NAME</th>
            <th>HEAD OF THE DEPARTMENT</th>
        
```

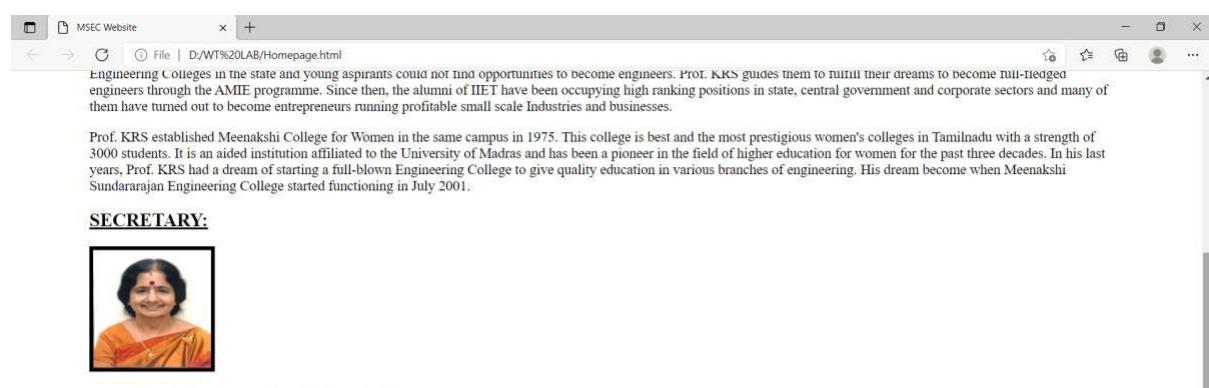
</tr>
<tr>
<td>1.</td>
<td>Civil Engineering</td>
<td>Dr.L.Ramajeyam</td>
</tr>
<tr>
<td>2.</td>
<td>Computer Science Engineering</td>
<td>Dr.B.Monica Jenefer</td>
</tr>
<tr>
<td>3.</td>
<td>Electronics and Communiccation Engineering</td>
<td>Mrs. Siji Sivanandan</td>
</tr>
<tr>
<td>4.</td>
<td>Electrical and Electronics Engineering</td>
<td>Dr.K.Soundarabala</td>
</tr>
<tr>
<td>5.</td>
<td>Information Technology</td>
<td>Dr.A.Kanimozhi</td>
</tr>
<tr>
<td>6.</td>
<td>Mechanical Engineering</td>
<td>Dr.K.Balasubramanian</td>

</table>
</body>
</html>

OUTPUT:



Prof. K.R. Sundararajan, one of the eminent educationists of South India, established Indian Institute of Engineering Technology (IIET) in the year 1947 when there were only a few Engineering Colleges in the state and young aspirants could not find opportunities to become engineers. Prof. KRS guides them to fulfill their dreams to become full-fledged engineers through the AMIE programme. Since then, the alumni of IIET have been occupying high ranking positions in state, central government and corporate sectors and many of them have turned out to become entrepreneurs running profitable small scale Industries and businesses.



SECRETARY:



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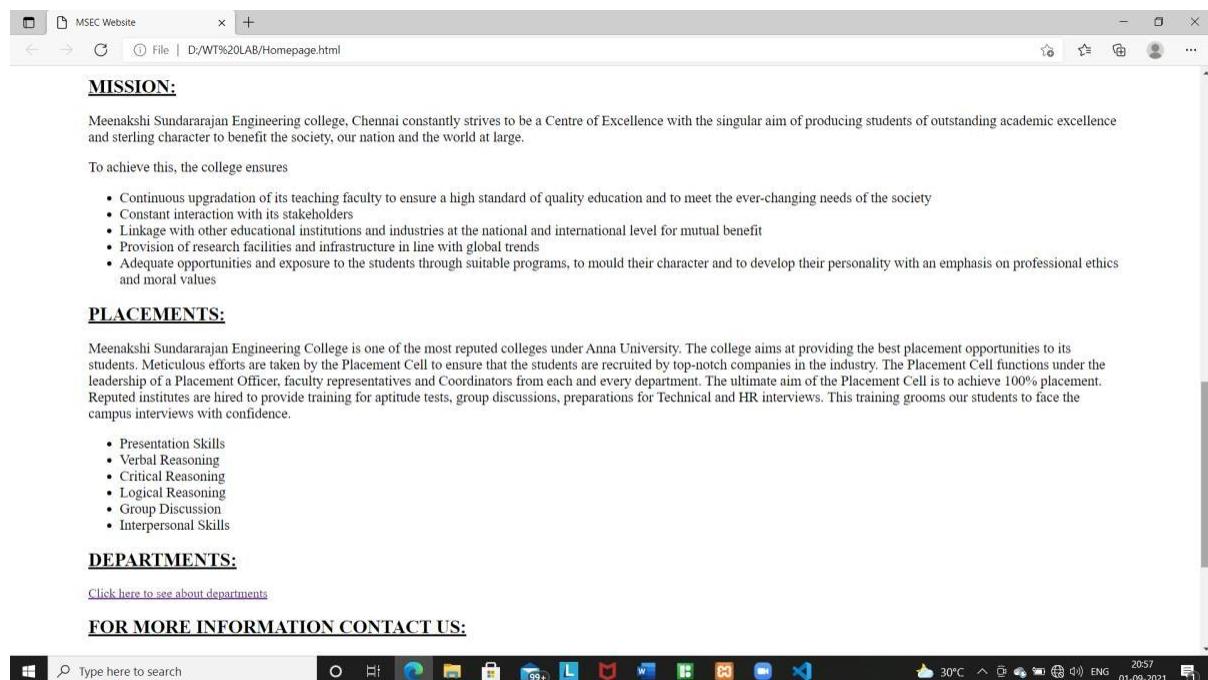
MISSION:

Meenakshi Sundararajan Engineering college, Chennai constantly strives to be a Centre of Excellence with the singular aim of producing students of outstanding academic excellence and sterling character to benefit the society, our nation and the world at large.

To achieve this, the college ensures

- Continuous upgradation of its teaching faculty to ensure a high standard of quality education and to meet the ever-changing needs of the society
- Constant interaction with its stakeholders





MSEC Website

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To achieve this, the college ensures

- Continuous upgrading of its teaching faculty to ensure a high standard of quality education and to meet the ever-changing needs of the society
- Constant interaction with its stakeholders
- Linkage with other educational institutions and industries at the national and international level for mutual benefit
- Provision of research facilities and infrastructure in line with global trends
- Adequate opportunities and exposure to the students through suitable programs, to mould their character and to develop their personality with an emphasis on professional ethics and moral values

PLACEMENTS:

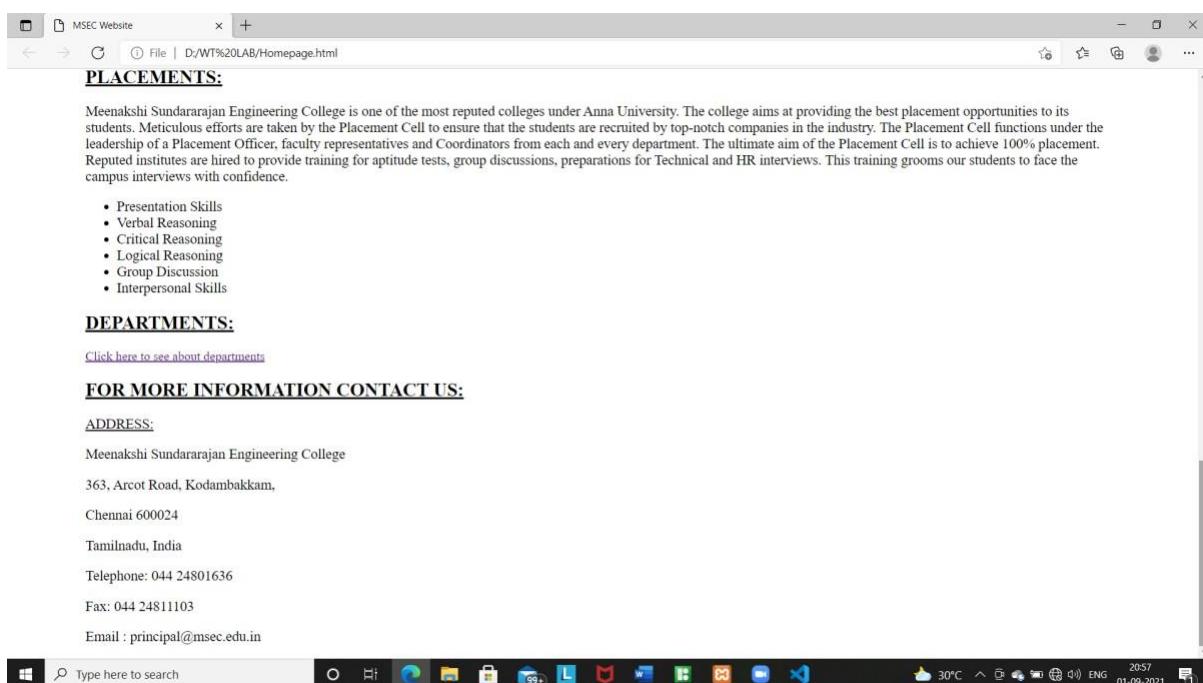
Meenakshi Sundararajan Engineering College is one of the most reputed colleges under Anna University. The college aims at providing the best placement opportunities to its students. Meticulous efforts are taken by the Placement Cell to ensure that the students are recruited by top-notch companies in the industry. The Placement Cell functions under the leadership of a Placement Officer, faculty representatives and Coordinators from each and every department. The ultimate aim of the Placement Cell is to achieve 100% placement. Reputed institutes are hired to provide training for aptitude tests, group discussions, preparations for Technical and HR interviews. This training grooms our students to face the campus interviews with confidence.

- Presentation Skills
- Verbal Reasoning
- Critical Reasoning
- Logical Reasoning
- Group Discussion
- Interpersonal Skills

DEPARTMENTS:

[Click here to see about departments](#)

FOR MORE INFORMATION CONTACT US:



MSEC Website

PLACEMENTS:

Meenakshi Sundararajan Engineering College is one of the most reputed colleges under Anna University. The college aims at providing the best placement opportunities to its students. Meticulous efforts are taken by the Placement Cell to ensure that the students are recruited by top-notch companies in the industry. The Placement Cell functions under the leadership of a Placement Officer, faculty representatives and Coordinators from each and every department. The ultimate aim of the Placement Cell is to achieve 100% placement. Reputed institutes are hired to provide training for aptitude tests, group discussions, preparations for Technical and HR interviews. This training grooms our students to face the campus interviews with confidence.

- Presentation Skills
- Verbal Reasoning
- Critical Reasoning
- Logical Reasoning
- Group Discussion
- Interpersonal Skills

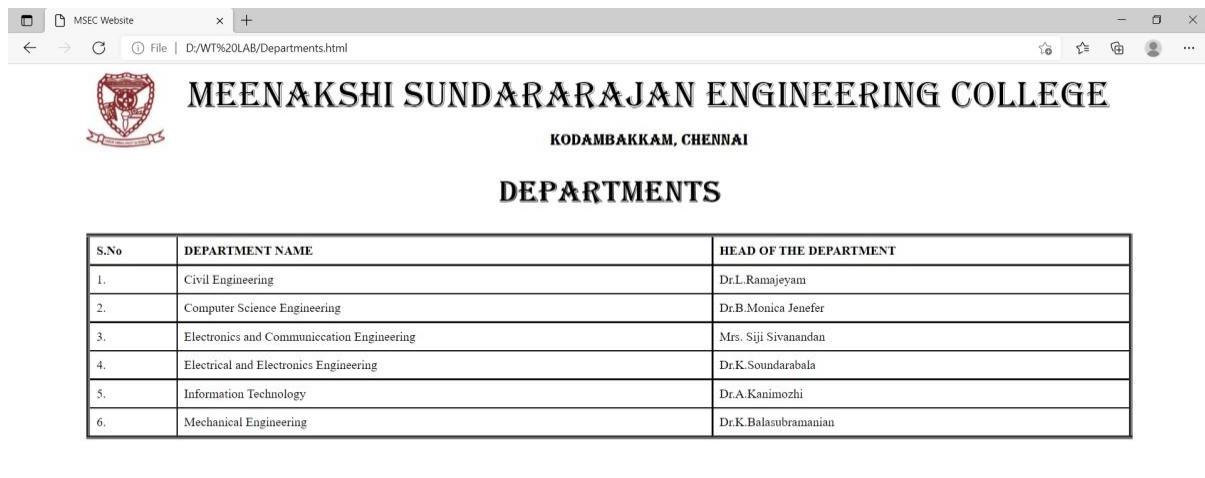
DEPARTMENTS:

[Click here to see about departments](#)

FOR MORE INFORMATION CONTACT US:

ADDRESS:

Meenakshi Sundararajan Engineering College
363, Arcot Road, Kodambakkam,
Chennai 600024
Tamilnadu, India
Telephone: 044 24801636
Fax: 044 24811103
Email : principal@msec.edu.in



MSEC Website

MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE
KODAMBAKKAM, CHENNAI

DEPARTMENTS

S.No	DEPARTMENT NAME	HEAD OF THE DEPARTMENT
1.	Civil Engineering	Dr.L.Ramajeyam
2.	Computer Science Engineering	Dr.B.Monica Jenefer
3.	Electronics and Communication Engineering	Mrs. Siji Sivanandan
4.	Electrical and Electronics Engineering	Dr.K.Soundarabala
5.	Information Technology	Dr.A.Kanimozhi
6.	Mechanical Engineering	Dr.K.Balasubramanian



RESULT:

Thus, the implementation of website of our college displaying department information using Anchor tags is executed successfully.

EX NO:1C	IMPLEMENTATIONS OF FRAME SET TAG
DATE:24/08/2021	

PROBLEM STATEMENT:

Create a web document using Frameset for a shopping mall, the document must contain hyperlinks and marquee tags.

AIM:

To write an HTML program that will display the menu on one side of the frameset and displays the chosen content on the other side of the frameset.

DESCRIPTION:

- 1) <frameset>: To use frames on a page we use <frameset> instead of <body>.
- 2) <marquee>: used for scrolling piece of text displayed horizontally or vertically.
- <a>: Anchor tag is used to create a link.

PROGRAM:

INPUT:

home.html

```
<html>
<head>
<title>ONLINE SHOP</title>
</head>
<frameset rows="25%,*">
<frame src="frame1.html">
<frameset cols="25%,*">
<frame src="frame2.html" name="f2">
<frame src="frame3.html" name="f3">
</frameset>
</html>
```

Frame1.html

```
<html>
<head><title>frame1</title>
</head>
<body bgcolor="blue">
<h1 style="color:green;font-size:15pt">
<marquee bgcolor="#cccccc" loop="-1" scrollamount="6" width="100%">
ONLINE SHOP </marquee>
</h1>
</body>
</html>
```

Frame2.html

```
<html>
<head><title>frame2</title>
<style type="text/css">
h1
{
font-size:25pt;color:pink;

}
</style>
</head>
<body bgcolor="red">
<h1>For more detail, click the link</h1>
<a href="intro.html" target=f3>Introduction</a><br>
<a href="dept.html" target=f3>Departments</a><br>
<a href="ad.html" target=f3>ADDRESS</a><br>
<a href="feed.html" target=f3>Feedback</a><br>
<a href="gall.html" target=f3>Gallery</a><br>
</body>
</html>
```

Frame3.html

```
<html>
<head><title>1st page</title>
<link rel="stylesheet" type="text/css" href="C:\Documents and
Settings\Administrator\Desktop\ab\css1.css"/>
</head>
<body bgcolor="tan">
<CENTER><h2> <center>YOU ARE IN HOME PAGE</center></h2>
<h3>ABOUT</h3>
<p> Today we will share with you online shop names that will inspire you. Over the last year, we have helped thousands of people name their small businesses.
All the online store names we have collected are unique and creative.</p>
<h3>The Full Cart</h3>
<ol>Come To Market</ol>
<ol>Website Wish List</ol>
<ol>Stanford</ol>
<h3>Online Store Names</h3>
<h2>Online Shop Name Ideas</h2>
<ol>Fly Buy</ol>
<ol>Primo Space</ol>
<ol>Deploya-Logo</ol>
<ol>Rosales General Store</ol>
</center>
```

```
</body>
</html>
```

Intro.html

```
<html>
<head><title>intro</title>
</head>
<body bgcolor="black">
<font color=red>

<br>ZARA
<br>
<h1>BEGIN YOUR SHOPPING </h1>
<p>https://images-static.nykaa.com/uploads/tr:w-1190,e-sharpen,/33c041b2-1d2f-4051-ad9c-08a7a03fdb4d.jpg
</p>

<h1></h1>
<p>Shopping online for women's clothing ,footwear,jewellery,handbags, etc. at Nykaa Fashion is sure to be an elevating experience for you.
From trendyethnic wear for womento fashion-forward contemporary and fusion wear collections for women,
you can trust Nykaa Fashion online shopping store to always brings you the latest fashion trends, new styles,
off-the-runway collections and more on the daily. Browse through the latest collections of footwear for women from renowned brands likeMetro,
Mochi,Birkenstock,Paio,Preet Kaur,Twenty Dresses,Sole Headand many more by downloading the Nykaa Fashion online shopping app.
Discover wide collections ofwomen's bagslike tote bags, satchel bags, sling bags, cross-body bags, shopper bags and more at our online website.
From summer dresses, jumpsuits, skirts, shorts and more to winter sweaters, sweatshirts, coats, jackets and more,
find the latest and the best of western wear collections online at Nykaa Fashion. Get your hands on the latest Indian wear collections and ready to wear dresses, gowns, salwar suits, kurtas and kurtis, sarees, lehengas and more when online shopping for women at Nykaa Fashion
</p>
</font>
</body>
</html>
```

Ad.html

```
<html>
<head><title>ADDRESS</title>
</head>
<body bgcolor="black">
<font color=red>
<center><br>Name:ZARA SHOPPING</br>
<br>Location:XV49+664, Tharanampet, Gudiyatham, Tamil Nadu 632601</br>
<br>Contact No:0124-4665719</br>
<br>Mail:bharath@in.inditex.com</br>
<a href="https://www.zara.com/in/"> Location are mapped!</a></center>
</font>
</body>
</html>
```

Dept.html

```
<html>
<head><title>Departments</title>
</head>
<body>
<div align="center">
<table border=2>
<tr>

<th>Dept Product</th>
<th>Dept details</th>
</tr>
<tr>

<td>MENS</td>
<th><a href="https://www.nykaafashion.com/lp/men?pageType=nf-men&pageVariation=1&transaction_id=80607f5626c7136a4c7e2e5f685eb820&intcmp=hp,leads-ins,2,men-lead-ins">More COLLECTION FOR MENS!</a></th>
</tr>
<tr>

<td>WOMENS</td>
<th><a href="https://www.selectcitywalk.com/blog/real-life-heroes-thecitysalutesyou/">More COLLECTION FOR WOMENS!</a></th>
</tr>
<tr>
<TD>KIDS</TD>
<th><a href="https://www.nykaafashion.com/lp/kids?pageType=nf-homepage-kids&pageVariation=1&transaction_id=cadbe2bb1e4eb56c8880eaa521ce40c1&intcmp=hp,leads-ins,3,kids-lead-ins">More COLLECTION FOR KIDS!</a></th>
</tr>
<tr>
</tr>
</table>
</div>
</body>
</html>
```

Feed.html

```
<html>
<head><title>feed</title>
</head>
```

```
<body bgcolor="black">
```

```
<p>
```

```
<font color=green>
```

```
<center><P>
```

Zara is one of the largest international fashion companies. It belongs to Inditex, one of the world's largest distribution groups.

The customers are at the heart of our unique business model, which includes design, production, distribution and sales through our extensive retail network. Zara revolutionized the fashion market forever, by introducing the concept of "fast fashion".

Reportedly, Zara needs just one week to develop a new product and get it to stores, compared to the six-month industry average,

and launches around 12,000 new designs each year. Zara has a policy of zero advertising; the company preferred to invest a percentage of revenues in opening new stores instead.

```
<ol>Tata Consultancy Services (TCS)</ol>
```

```
<ol>Bimetal Bearings Ltd. </ol>
```

```
<ol>Sundaram Brake linings Ltd. </ol>
```

```
<ol>Addison & Co.</ol>
```

```
<ol>Simpson & Co.</ol>
```

```
<ol>Vi Micro Systems Pt. Ltd. </ol>
```

```
<ol>Scigenics Biotech Pt. Ltd.</ol>
```

```
<ol>Micromatic Machine Tools Pt. Ltd.</ol>
```

```
</p></center>
```

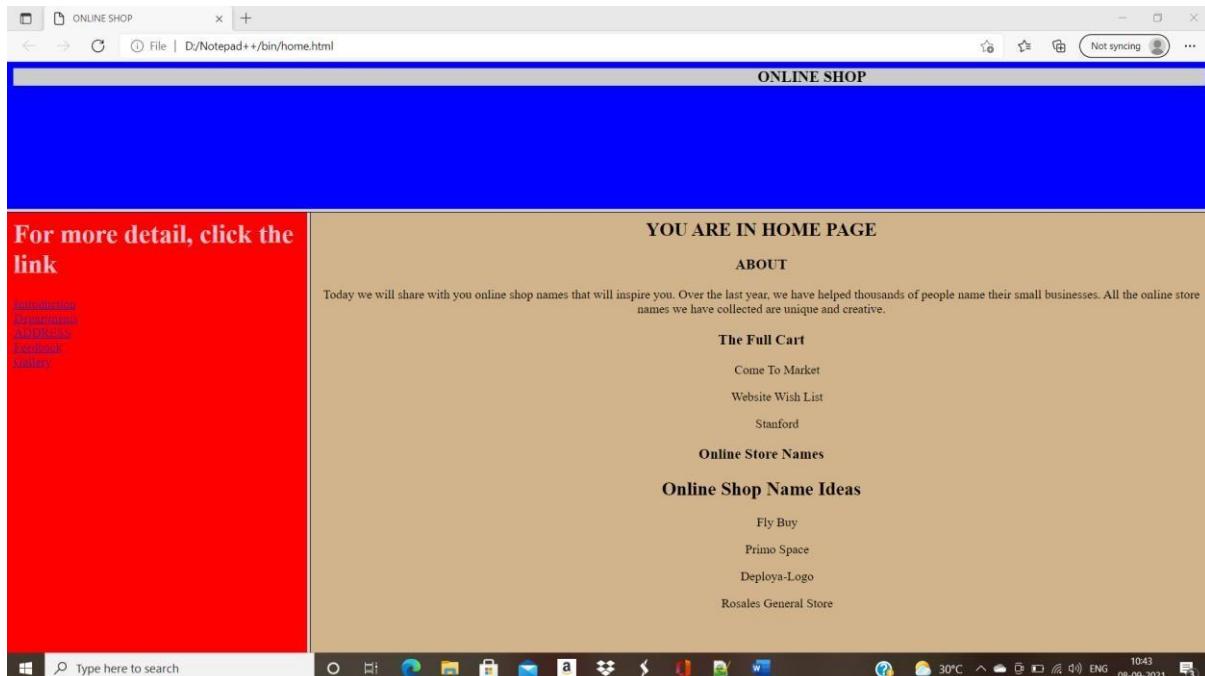
```
</font>
```

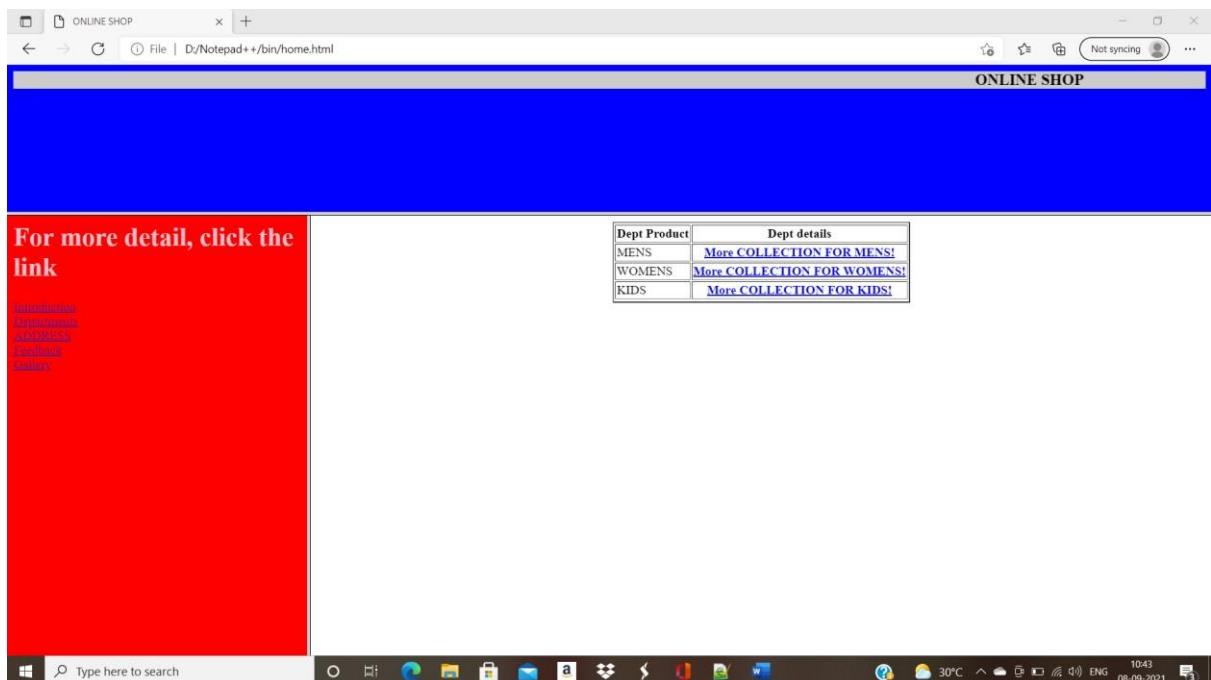
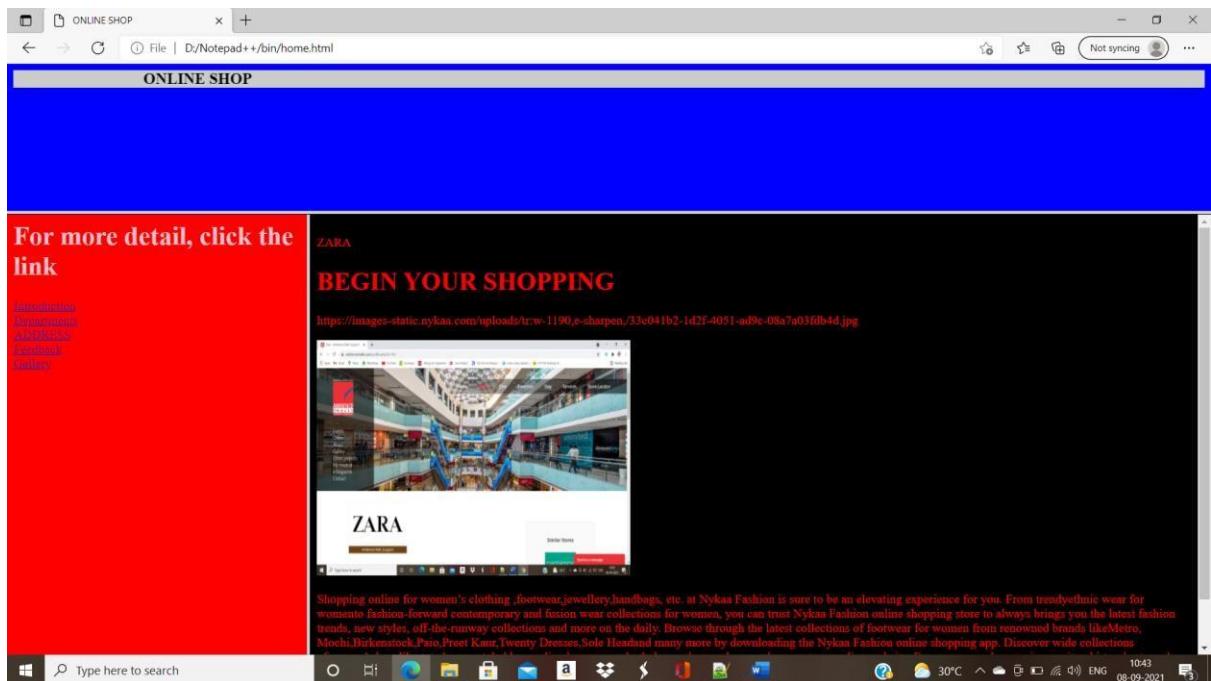
```
</p>
```

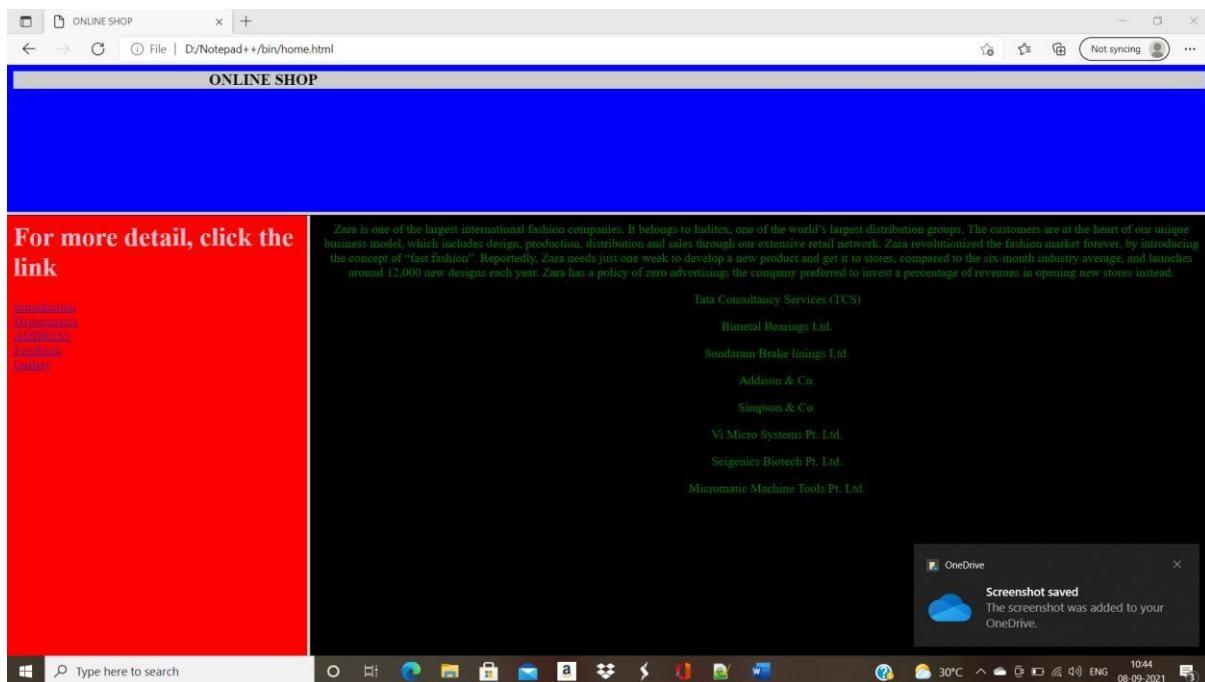
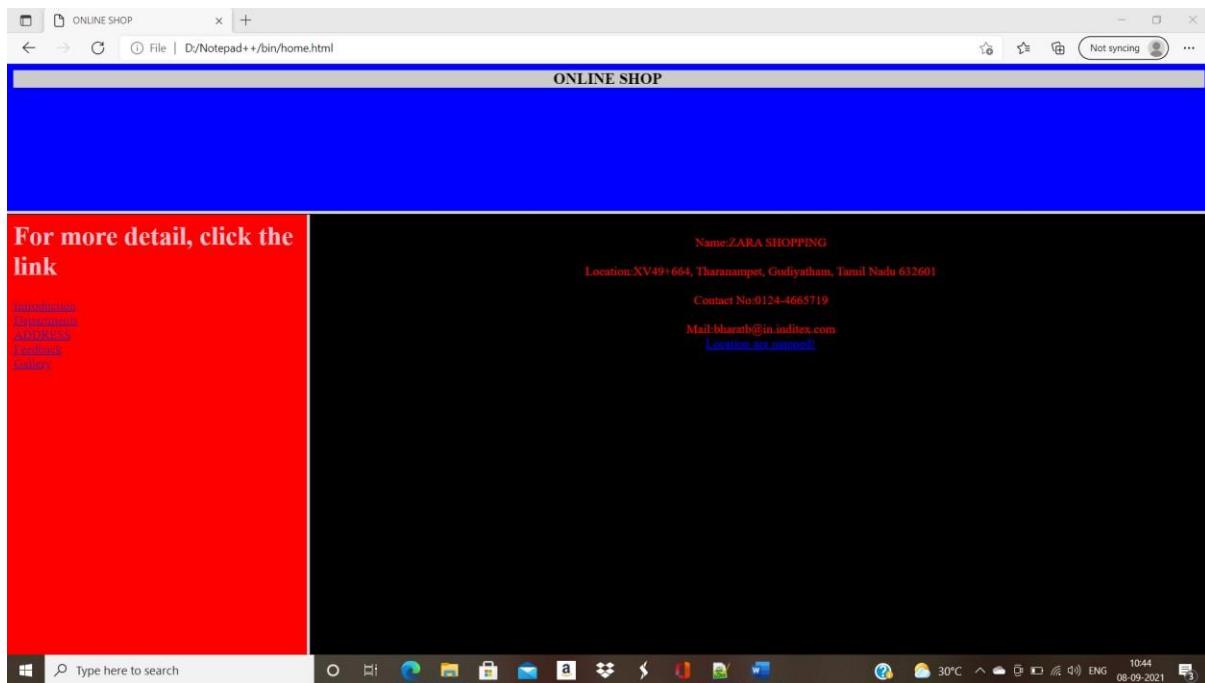
```
</body>
```

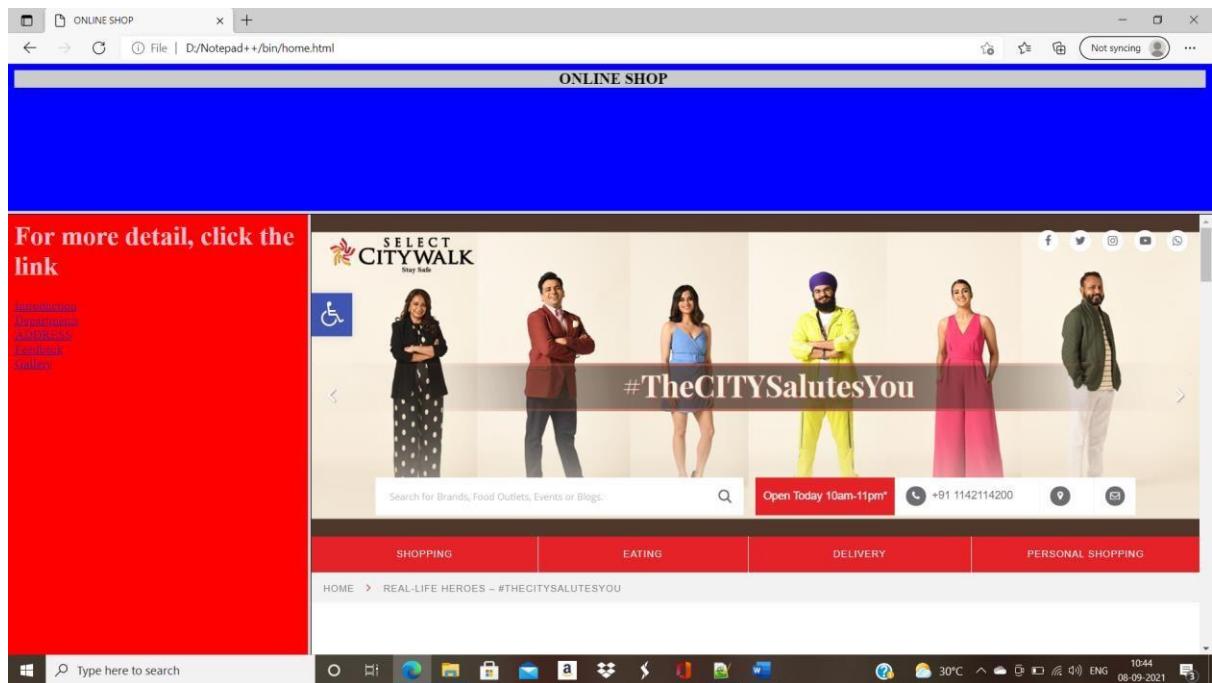
```
</html>
```

OUTPUT:









RESULT:

Thus, the implementation of frameset tag for a shopping mall the document must contain hyperlinks and marquee tags is executed successfully

EX.NO:1(D)

24/08/2021

IMPLEMENTATION OF IMAGE MAP TAGS

PROBLEM STATEMENT:

Create a HTML document with an image containing different geometric shapes and display the related information about the shape when a hot spot is clicked on the map.

AIM:

To Create a HTML document with an image containing different geometric shapes and display the related information about the shape when a hot spot is clicked on the map.

DESCRIPTION:

Image Map Tag:<map>

The <map> tag is used to define an image map. An image map is an image with clickable areas. The required name attribute of the <map> element is associated with the 's usemap attribute and creates a relationship between the image and the map.

PROGRAM:

Imagemap.html

```
<!DOCTYPE html>
<html>
<body>
<h1>Image Maps</h1>
<p>Click on the Circle, Rectangle, Square, or Triangle to go to a new page and read more about the topic:</p>

<map name="workmap">
  <area shape="poly" coords="47,97,111,96,77,43" alt="Triangle" href="file:///D:/Notepad%20++%20Work/Triangle.html">
  <area shape="Square" coords="197,207,249,154" alt="Square" href="file:///D:/Notepad%20++%20Work/Square.html">
```

```
<area shape="Circle" coords="220,67,29" alt="Circle"  
href="file:///D:/Notepad%20++%20Work/Circle.html">  
  
<area shape="Rectangle" coords="40,207,123,154" alt="Rectangle"  
href="file:///D:/Notepad%20++%20Work/Rectangle.html">  
  
</map>  
  
</body>  
  
</html>
```

Circle.html

```
<!DOCTYPE html>  
  
<html>  
  
<body>  
  
<center><h2>Shape–Circle</h2></center>  
  
<center></center>  
  
<ol>A circle is a shape consisting of all points in a plane that are at a given distance from a  
given point, the centre;</ol>  
  
<ol>equivalently it is the curve traced out by a point that moves in a plane so that its  
distance from a given point is constant.</ol>  
  
<ol>The distance between any point of the circle and the centre is called the radius.</ol>  
  
<ol>This article is about circles in Euclidean geometry, and, in particular, the Euclidean  
plane, except where otherwise noted.</ol>  
  
<ol>Specifically, a circle is a simple closed curve that divides the plane into two regions:  
an interior and an exterior.</ol>  
  
<ol>In everyday use, the term "circle" may be used interchangeably to refer to either the  
boundary of the figure, or to the whole figure including its interior;</ol>  
  
<ol>in strict technical usage, the circle is only the boundary and the whole figure is called a  
disc.</ol>  
  
<ol>A circle may also be defined as a special kind of ellipse in which the two foci are  
coincident and the eccentricity is 0.</ol>  
  
<ol>The two-dimensional shape enclosing the most area per unit perimeter squared, using  
calculus of variations.</ol>  
  
</body>  
  
</html>
```

Rectangle.html

```
<!DOCTYPE html>

<html>
<body>

<center><h2>Shape–Rectangle</h2></center>

<center></center>

<ol>In Euclidean plane geometry, a rectangle is a quadrilateral with four right angles.</ol>
<ol>It can also be defined as: an equiangular quadrilateral, since equiangular means that all of its angles are equal ( $360^\circ/4 = 90^\circ$ );</ol>
<ol>(OR) A parallelogram containing a right angle.</ol>
<ol>A rectangle with four sides of equal length is a square.</ol>
<ol>The term oblong is occasionally used to refer to a non-square rectangle.</ol>
<ol>The word rectangle comes from the Latin rectangulus, which is a combination of rectus and angulus (angle).</ol>
<ol>A crossed rectangle is a crossed quadrilateral which consists of two opposite sides of a rectangle along with the two diagonals[4] (therefore only two sides are parallel).</ol>
<ol> It is a special case of an antiparallelogram, and its angles are not right angles and not all equal, though opposite angles are equal.</ol>
<ol>Other geometries, such as spherical, elliptic, and hyperbolic, have so-called rectangles with opposite sides equal in length and equal angles that are not right angles.</ol>
<ol>Rectangles are involved in many tiling problems, such as tiling the plane by rectangles or tiling a rectangle by polygons.</ol>

</body>
</html>
```

Triangle.html

```
<!DOCTYPE html>

<html>
<body>

<center><h2>Shape–Triangle</h2></center>

<center></center>
```

This section deals with the simplest geometric shapes and their symmetries.

All of the shapes are two-dimensional – hence they can be drawn accurately on paper.

Simple geometric shapes are studied in mathematics partly because they are used in thousands of practical applications.

rectangles occur in windows, cinema screens and sheets of paper;

while circles are an essential part of wheels, gears and plates.

By definition, triangles are shapes with three straight sides. However, there are various types of triangle:

An equilateral triangle is a triangle with all three sides of equal length. The three angles are also all equal.

An isosceles triangle is a triangle with two sides of equal length. The two angles opposite the equal sides are also equal to one another.

A right-angled triangle is a triangle with one angle that is a right angle.

A scalene triangle is a triangle with all the sides of different lengths. The angles are also all different.

</body>

</html>

Square.html

```
<!DOCTYPE html>
<html>
<body>
<center><h2>Shape-Square</h2></center>
<center></center>
<ol>A square is a special case of a rhombus (equal sides, opposite equal angles)</ol>
<ol>A kite (two pairs of adjacent equal sides), a trapezoid (one pair of opposite sides parallel)</ol>
<ol>parallelogram (all opposite sides parallel), a quadrilateral or tetragon (four-sided polygon) </ol>
<ol>The diagonals of a square bisect each other and meet at 90°.</ol>
<ol>The diagonals of a square bisect its angles.</ol>
<ol>Opposite sides of a square are both parallel and equal in length.</ol>
```

All four angles of a square are equal (each being $360^\circ/4 = 90^\circ$, a right angle).

All four sides of a square are equal.

The diagonals of a square are equal.

The square is the n=2 case of the families of n-hypercubes and n-orthoplexes.

</body>

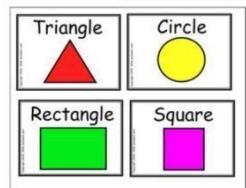
</html>

OUTPUT:



Image Maps

Click on the Circle, Rectangle, Square, or Triangle to go to a new page and read more about the topic:





Shape-Triangle



This section deals with the simplest geometric shapes and their symmetries.

All of the shapes are two-dimensional – hence they can be drawn accurately on paper.

Simple geometric shapes are studied in mathematics partly because they are used in thousands of practical applications:

rectangles occur in windows, cinema screens and sheets of paper;

while circles are an essential part of wheels, gears and plates.

By definition, triangles are shapes with three straight sides. However, there are various types of triangle:

An equilateral triangle is a triangle with all three sides of equal length. The three angles are also all equal.

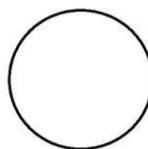
An isosceles triangle is a triangle with two sides of equal length. The two angles opposite the equal sides are also equal to one another.

A right-angled triangle is a triangle with one angle that is a right angle.

A scalene triangle is a triangle with all the sides of different lengths. The angles are also all different.



Shape–Circle



A circle is a shape consisting of all points in a plane that are at a given distance from a given point, the centre;

equivalently it is the curve traced out by a point that moves in a plane so that its distance from a given point is constant.

The distance between any point of the circle and the centre is called the radius.

This article is about circles in Euclidean geometry, and, in particular, the Euclidean plane, except where otherwise noted.

Specifically, a circle is a simple closed curve that divides the plane into two regions: an interior and an exterior.

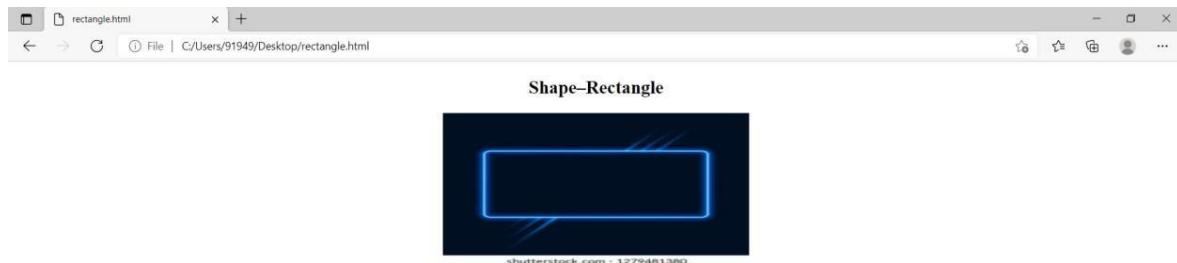
In everyday use, the term "circle" may be used interchangeably to refer to either the boundary of the figure, or to the whole figure including its interior;

in strict technical usage, the circle is only the boundary and the whole figure is called a disc.

A circle may also be defined as a special kind of ellipse in which the two foci are coincident and the eccentricity is 0.

The two-dimensional shape enclosing the most area per unit perimeter squared, using calculus of variations.





In Euclidean plane geometry, a rectangle is a quadrilateral with four right angles.

It can also be defined as: an equiangular quadrilateral, since equiangular means that all of its angles are equal ($360^\circ/4 = 90^\circ$);

(OR) A parallelogram containing a right angle.

A rectangle with four sides of equal length is a square.

The term oblong is occasionally used to refer to a non-square rectangle.

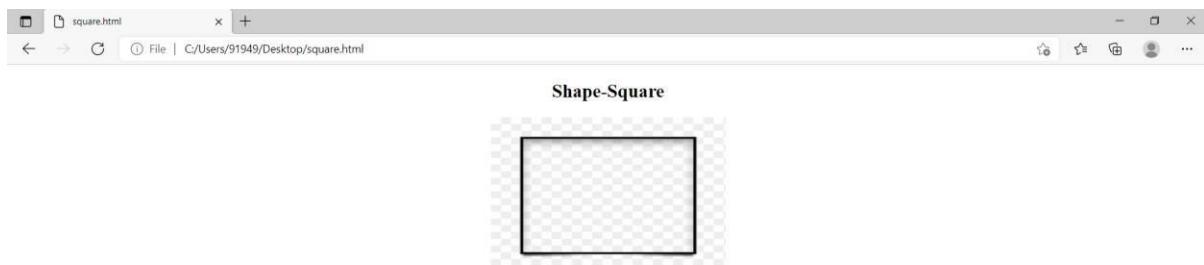
The word rectangle comes from the Latin *rectangulus*, which is a combination of *rectus* and *angulus* (angle).

A crossed rectangle is a crossed quadrilateral which consists of two opposite sides of a rectangle along with the two diagonals[4] (therefore only two sides are parallel).

It is a special case of an antiparallelogram, and its angles are not right angles and not all equal, though opposite angles are equal.

Other geometries, such as spherical, elliptic, and hyperbolic, have so-called rectangles with opposite sides equal in length and equal angles that are not right angles.

Rectangles are involved in many tiling problems, such as tiling the plane by rectangles or tiling a rectangle by polygons.



A square is a special case of a rhombus (equal sides, opposite equal angles)

A kite (two pairs of adjacent equal sides), a trapezoid (one pair of opposite sides parallel)

parallelogram (all opposite sides parallel), a quadrilateral or tetragon (four-sided polygon)

The diagonals of a square bisect each other and meet at 90° .

The diagonals of a square bisect its angles.

Opposite sides of a square are both parallel and equal in length.

All four angles of a square are equal (each being $360^\circ/4 = 90^\circ$, a right angle).

All four sides of a square are equal.

The diagonals of a square are equal.

The square is the $n=2$ case of the families of n -hypercubes and n -orthoplexes.



RESULT:

Thus, the implementation of image map tag is executed successfully.

EX NO :2A

DATE:04/09/2021

CREATION OF WEBSITE USING CSS

PROBLEM STATEMENT:

Create a website for a tourism spot and apply External, Internal and Inline CSS.

AIM:

To Create a website for a tourism spot and apply External, Internal and Inline CSS.

DESCRIPTION:

CSS stands for Cascading Style Sheets. It is a style sheet language which is used to describe the look and formatting of a document written in markup language. It provides an additional feature to HTML. It is generally used with HTML to change the style of web pages and user interfaces. It can also be used with any kind of XML documents including plain XML, SVG and XUL.

There are three types of CSS which are given below:

- ✓ Inline CSS.
- ✓ Internal or Embedded CSS.
- ✓ External CSS.

Inline CSS.

We can apply CSS in a single element by inline CSS technique. The inline CSS is also a method to insert style sheets in HTML document. This method mitigates some advantages of style sheets so it is advised to use this method sparingly. If you want to use inline CSS, you should use the style attribute to the relevant tag.

Internal CSS.

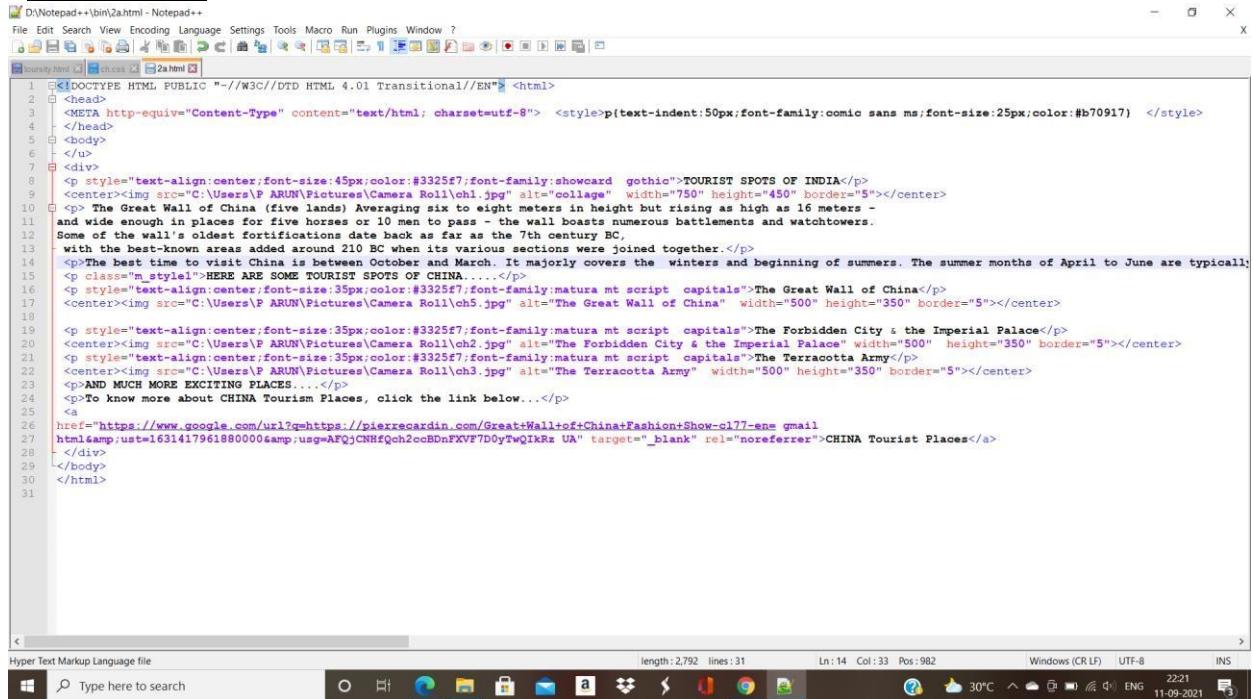
The internal style sheet is used to add a unique style for a single document. It is defined in <head> section of the HTML page inside the <style> tag.

External CSS.

The external style sheet is generally used when you want to make changes on multiple pages. It is ideal for this condition because it facilitates you to change the look of the entire web site

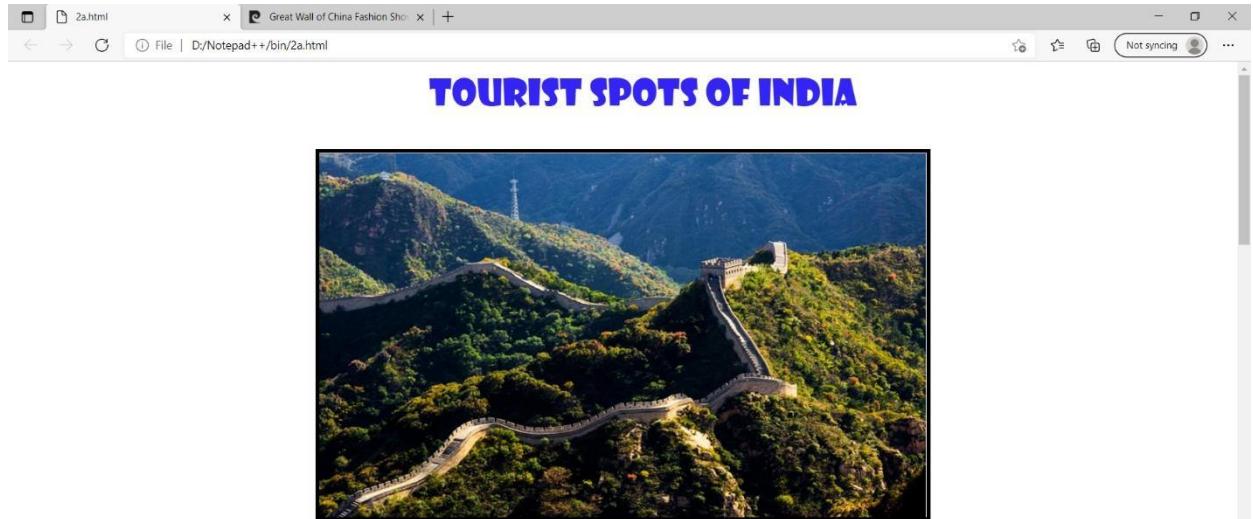
by changing just one file. It uses the <link> tag on every pages and the <link> tag should be put inside the head section.

PROGRAM:



```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"> <html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8"> <style>p{text-indent:50px;font-family:comic sans ms;font-size:25px;color:#b70917}</style>
</head>
<body>
<div>
<p style="text-align:center;font-size:45px;color:#3325f7;font-family:showcard gothic">TOURIST SPOTS OF INDIA</p>
<center></center>
<p>The Great Wall of China (five lands) Averaging six to eight meters in height but rising as high as 16 meters - and wide enough in places for five horses or 10 men to pass - the wall boasts numerous battlements and watchtowers. Some of the wall's oldest fortifications date back as far as the 7th century BC, with the best-known areas added around 210 BC when its various sections were joined together.</p>
<p>The best time to visit China is between October and March. It majorly covers the winters and beginning of summers. The summer months of April to June are typically very hot and humid. The autumn months of September to November are the most pleasant, with clear skies and cool temperatures. Spring is also a good time to visit, with the cherry blossoms in full bloom in some regions like Beijing and Shanghai. The winter months of December to February are the coldest, with heavy snowfall in northern regions like Harbin and Changchun. The central and southern regions like Chongqing and Chengdu have milder winters with less snowfall. The monsoon season starts in June and continues until September, bringing heavy rainfall to southern and eastern parts of the country. The best time to visit China depends on your interests and the specific region you plan to visit. If you're interested in historical sites like the Great Wall or the Forbidden City, then any time of the year would be suitable. If you're interested in natural beauty like the Yangtze River or the Yellow Mountains, then spring or autumn would be ideal. If you're interested in modern cities like Beijing or Shanghai, then any time of the year would be suitable. If you're interested in outdoor activities like hiking or skiing, then the best time would depend on the specific activity and the location. In general, the best time to visit China is during the shoulder seasons of spring and autumn, when the weather is more comfortable and there are fewer tourists. However, it's always a good idea to check the local weather forecast and travel advisories before you plan your trip. The Chinese government has strict regulations regarding tourism, so it's important to follow their guidelines and respect local customs and traditions. Overall, China is a vast and diverse country with something to offer everyone, regardless of the time of year. Whether you're interested in history, culture, nature, or modernity, China has it all. So why not plan a trip to this amazing country and experience its rich heritage and vibrant present for yourself?</p>
<p style="text-align:center;font-size:35px;color:#3325f7;font-family:natura mt script capitals">The Great Wall of China</p>
<center></center>
<p style="text-align:center;font-size:35px;color:#3325f7;font-family:natura mt script capitals">The Terracotta Army</p>
<center></center>
<p>AND MUCH MORE EXCITING PLACES...</p>
<p>To know more about CHINA Tourism Places, click the link below...</p>
<a href="https://www.google.com/url?q=https://pierrecardin.com/Great+Wall+of+China+Fashion+Show-c177-en&gmail.html&ust=163141796188000&usg=AFQjCNCfQch2ccBDnFXVFTDoyTwQIkRzUA" target="_blank" rel="noopener">CHINA Tourist Places</a>
</div>
</body>
</html>
```

OUTPUT:



The Great Wall of China (five lands) Averaging six to eight meters in height but rising as high as 16 meters - and wide enough in places for five horses or 10 men to pass - the wall boasts numerous battlements and watchtowers. Some of the wall's oldest fortifications date back as far as the 7th century BC, with the best-known areas added around 210 BC when its various sections were joined together.





The best time to visit China is between October and March. It majorly covers the winters and beginning of summers. The summer months of April to June are typically sweltering and should be avoided. After the scorching heat of summers, monsoons transform the terrain into a captivating place, but the levels of humidity and precipitation may not be something one was looking for. Whereas during winters, the temperature in most regions falls in the night time but is pleasantly average or quite high during the day.

HERE ARE SOME TOURIST SPOTS OF CHINA.....

The Great Wall of China

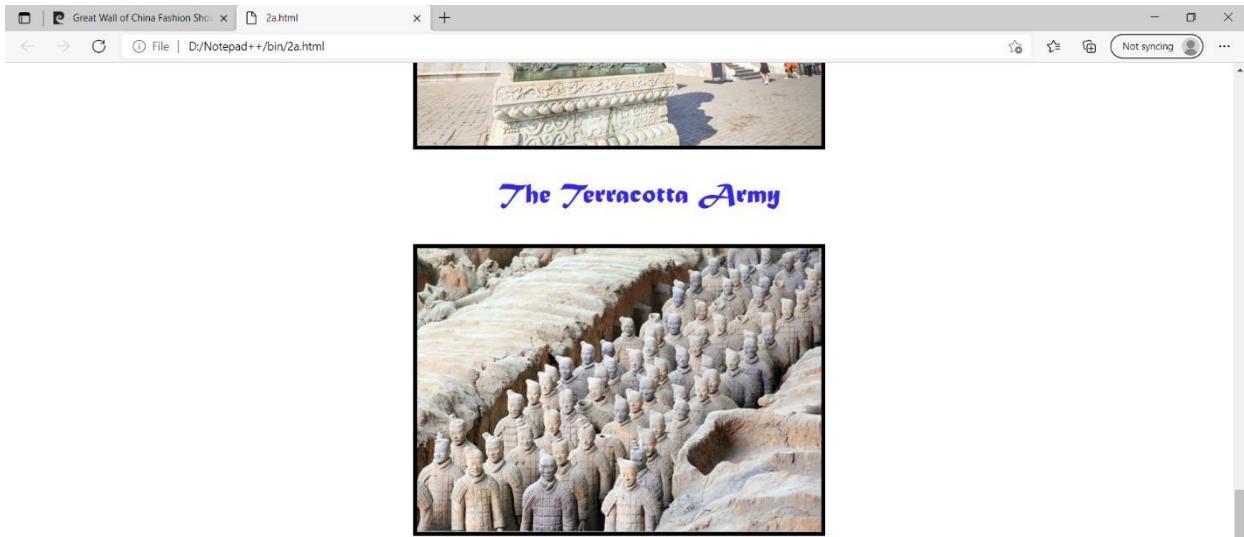


The Forbidden City & the Imperial Palace



The Terracotta Army





The Terracotta Army



AND MUCH MORE EXCITING PLACES....

To know more about CHINA Tourism Places, click the link below...

A screenshot of a Microsoft Edge browser window displaying the website for the Pierre Cardin Great Wall of China Fashion Show. The URL in the address bar is https://pierrecardin.com/Great%20Wall%20of%20China%20Fashion%20Show-cl77-en=%20gmail%20html. The page features a large banner image of the Great Wall of China with red flags and the text "Great Wall of China Fashion Show". Below the banner, there are smaller images of models walking on the wall and a view of the wall itself. On the left side, there is a sidebar with the Pierre Cardin logo and a section titled "Great Wall of China Fashion Show" which describes the event. A cookie consent banner at the bottom of the page asks for permission to use cookies.

RESULT:

Thus the Creation of website using CSS is implemented successfully.

EXP.NO.2(B)

07/09/2021

**IMPLEMENTATION OF WEBPAGE
FOR A CITY USING CSS**

PROBLEM STATEMENT:

- (a) Create a webpage with HTML describing your city. Use paragraph and list tags.
- (b) Apply various colors to suitably distinguish keywords. Also apply font styling like italics, underline and two other fonts towards you find appropriate. Also use header tags.
- (c) Create links on the words e.g. “Railways” to link them to IRCTC pages.
- (d) Insert an image and create a link such that clicking on image takes user to other page.
- (e) Change the background color of the page.
- (f) At the bottom create a link to take user to the top of the page.

AIM:

- (a) To Create a webpage with HTML describing your city. Use paragraph and list tags.
- (b) To Apply various colors to suitably distinguish keywords. Also apply font styling like italics, underline and two other fonts towards you find appropriate. Also use header tags.
- (c) To Create links on the words e.g. “Railways” to link them to IRCTC pages.
- (d) To Insert an image and create a link such that clicking on image takes user to other page.
- (e) To Change the background color of the page.
- (f) To create a link at the bottom to take user to the top of the page.

DESCRIPTION:

Heading Tag: <h>

HTML defines six levels of headings. A heading element implies all the font changes, paragraph breaks before and after, and any white space necessary to render the heading.

The heading elements are H1, H2, H3, H4, H5, and H6 with H1 being the highest (or most important) level and H6 the least.

Paragraph Tag: <p>

The HTML paragraph tag is the most often used because the majority of content on a web will be in this tag. It separates itself from the other paragraphs to form a well-organized document. Much like the other tags it has an opening tag, <p>, and a closing tag, </p>.

List Tag:

The HTML lists tag is used for specifying a list item is ordered, unordered and menu lists. Lists commonly are found in documents, including web pages. They are an easy and effective way to itemize such things as elements, components, or ingredients.

Image Tag:

The HTML tag is used to embed an image in a web page. Images are not technically inserted into a web page; images are linked to web pages. The tag creates a holding space for the referenced image. The tag is empty, it contains attributes only, and does not have a closing tag.

Image Map Tag:<map>

The <map> tag is used to define an image map. An image map is an image with clickable areas. The required name attribute of the <map> element is associated with the 's usemap attribute and creates a relationship between the image and the map.

a link to take user to the top of the page

Back to top of page

If you scrolled down on this page, clicking this link takes you back to the top of the page.

PROGRAM:

```
<!DOCTYPE html>
<html>
<head>
<title> Kodaikanal</title>
</head>
<body style="background-color:#4df3ff">
<center><h1 style="color:maroon"><b> Kodaikanal-CITY</b></h1>
<marquee>










</marquee>
```

<h1 style="color:maroon"><u>OVERVIEW OF Kodaikanal CITY</u></h1>
<h2 style="color:maroon"><i><u>CITY PROFILE</u></i></h2>
<i><p style="font-family:'Times new roman'">The word Kodaikanal is an amalgamation of two words: kodai and kanal. The Tamil language has at least four possible interpretations of the name Kodaikanal. By pronouncing the first syllable of Kodaikanal with a long Tamil 'O', as in koe-dei, it means "summer", whilst the final two syllables kanal can mean "to see", rendering Kodaikanal as a "place to see in summer".
Kodaikanal is a summer forest, and it is a place that the first missionaries used as a refuge to escape the overbearing and mosquito-ridden heat of the plains — a place that they would have counted on seeing in the summer.</p style="font-family:'Times new roman'"></i>
<h2 style="color:maroon"><i><u>HISTORY AND GROWTH</u></i></h2>
<i>By pronouncing Kodai with the short Tamil 'o' (as in Kodi), it means "creepers" or vines. Kodaikanal could mean "forest of creepers" or the forest of vines. "The forest of creepers" is thought to be the English language meaning given in 1885 during the early western habitation of the place[5] and is still accepted.[6]By pronouncing Kodai with a short Tamil 'o', and a long 'e', it might be interpreted to mean "gift", rendering "Kodaikanal" as "gift of the forest". Keeping the short Tamil 'o' but adding a long 'a', Kodai could be understood as the Tamil word for umbrella, where Kodaikanal is a forest fashioned like a protecting umbrella</i>
<center><h2 style="color:maroon">Kodaikanal CITY MAP</h2></center>
<center></center>
<map name="workmap">
<area shape="Square" coords="2,605,598,1" alt="Square"
href="https://www.google.com/maps/place/Kodaikanal,+Tamil+Nadu/@10.2351493,77.4618524,13z&data=!3m1!4b1!4m5!3m4!1s0x3b0766637f0a0387:0x9ffae9373758c13c!8m2!3d10.2381136!4d77.4891822?hl=en=en">
</map>
<i><h2>Top Attractions in Kodaikanal </h2></i>
 Kodaikanal Travel Guide
Pillar Rocks
 Guna Cave
Back to top of page
</body>
</html>

OUTPUT:



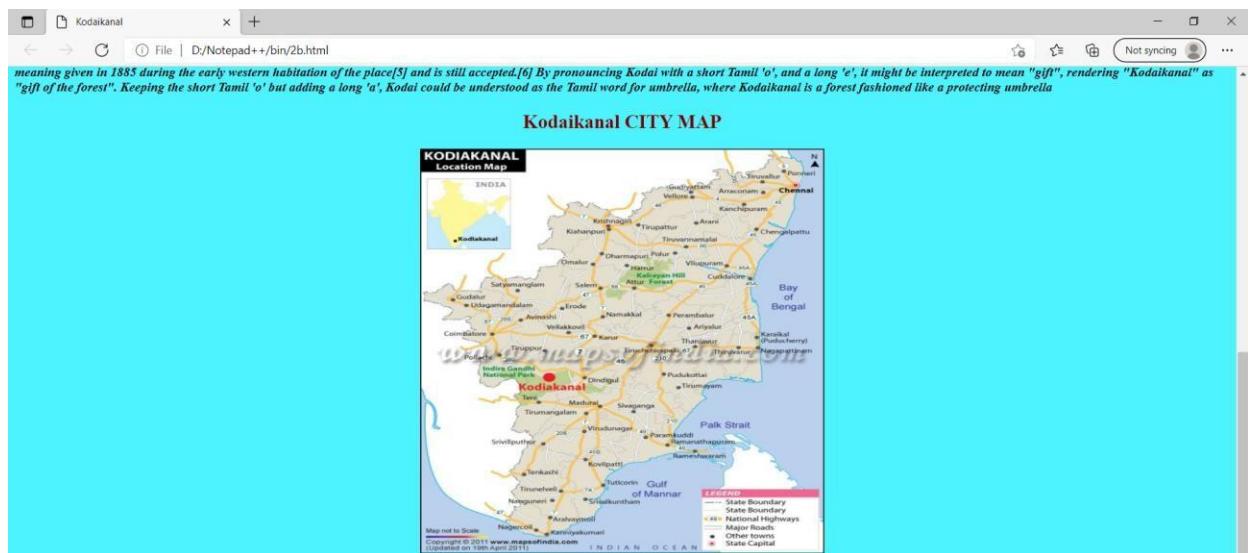
OVERVIEW OF Kodaikanal CITY

CITY PROFILE

The word Kodaikanal is an amalgamation of two words: kodai and kanal. The Tamil language has at least four possible interpretations of the name Kodaikanal. By pronouncing the first syllable of Kodaikanal with a long Tamil 'O', as in koe-del, it means "summer", whilst the final two syllables kanal can mean "to see", rendering Kodaikanal as a "place to see in summer". Kodaikanal is a summer forest, and it is a place that the first missionaries used as a refuge to escape the overbearing and mosquito-ridden heat of the plains — a place that they would have counted on seeing in the summer.

HISTORY AND GROWTH

By pronouncing Kodai with the short Tamil 'o' (as in Kodi), it means "creepers" or vines. Kodaikanal could mean "forest of creepers" or the forest of vines. "The forest of creepers" is thought to be the English language meaning given in 1885 during the early western habitation of the place[5] and is still accepted.[6] By pronouncing Kodai with a short Tamil 'o', and a long 'e', it might be interpreted to mean "gift", rendering "Kodaikanal" as "gift of the forest". Keeping the short Tamil 'o' but adding a long 'a', Kodai could be understood as the Tamil word for umbrella, where Kodaikanal is a forest fashioned like a protecting umbrella

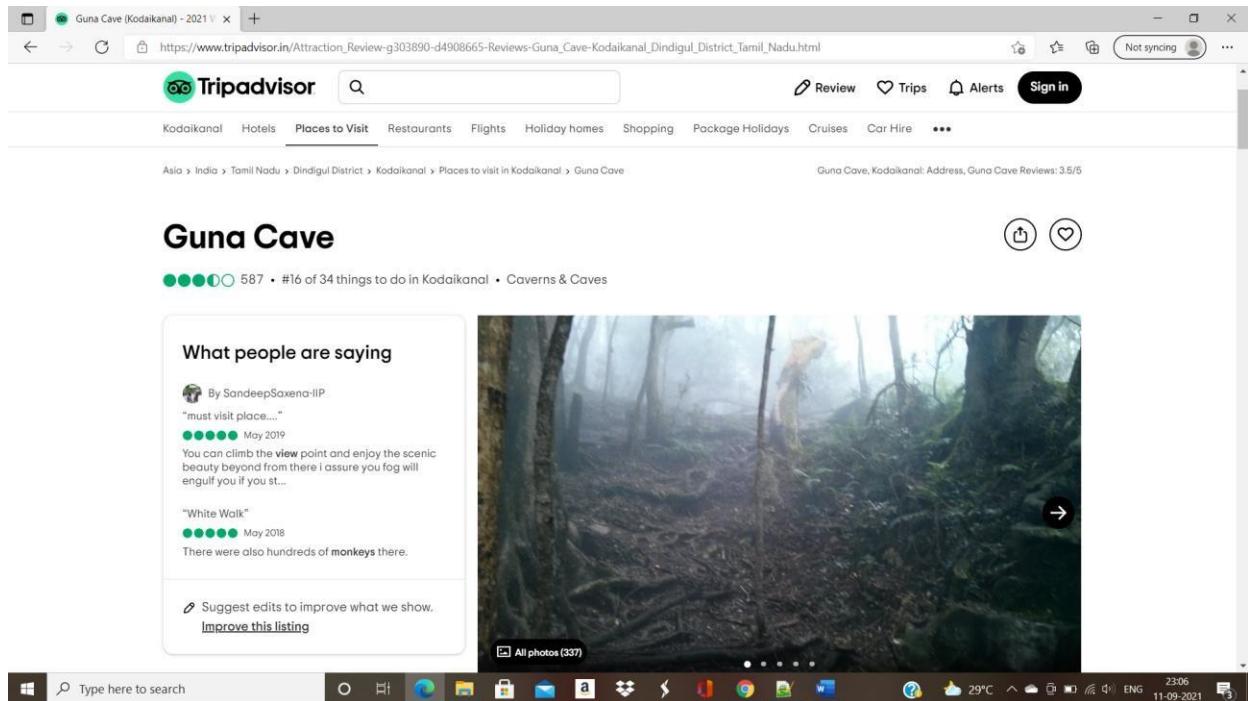


Top Attractions in Kodaikanal

- [Kodaikanal Travel Guide](#)
- [Pillar Rocks](#)
- [Gangai Cave](#)

[Back to top of page](#)





RESULT:

Thus, the implementation of webpage city applies font styling like italics, underline and two other fonts, create links on the words e.g., “Railways” to link with background image using css is executed successfully.

EXP.NO.3(A)	CREATION OF FUNCTION IN JAVASCRIPT
09/09/2021	

PROBLEM STATEMENT:

- a. Write a Script that reads an integer and display whether it is odd or even.
- b. Write a Script that reads a radius and print the area and circumference of the circle using alert box.
- c. Write a Script to read 6 numbers and display total and average value.

AIM:

- a. To Write a Script that reads an integer and display whether it is odd or even.
- b. To Write a Script that reads a radius and print the area and circumference of the circle using alert box.
- c. To Write a Script to read 6 numbers and display total and average value.

DESCRIPTION:

1. <script>-used to embed a client-side script (JavaScript).
2. <button>-defines a clickable button.
3. <style>: Defines style information (CSS) for a document.
4. <p>: Paragraph tag is used to display text in paragraphs.

PROGRAM:

a) oddeven.html

```
<!doctype html>
<html>
<head>
<script>
function odd_even(){
var no;
no=Number(document.getElementById("no_input").value);
if(no%2==0)
{
alert("Even Number");
}
else
{
```

```
    alert("Odd Number");
}
}
</script>
</head>
<body>
Enter Any Number:<input id="no_input"><br />
<button onclick="odd_even()">Click me</button>
</body>
</html>
```

b) area.html

```
<!DOCTYPE html>
<html>
<head>
<title>
Circle
</title>
</head>
<body>
<h2>
Reads a radius and print the area and circumference of the circle
</h2>
<p> Here the radius of circle is 20cm </p>
<p>
Click the following button to get the area and perimeter of circle.
</p>
<form>
    <input type = "button" value = "Click me" onclick = "fun();"/>
</form>
<p id = "para"></p>
<p id = "para1"></p>
<script type = "text/javascript">
var r = 20;
function fun() {

    alert ("This is an alert dialog box");
    document.getElementById('para').innerHTML = 'The area of circle
with radius 20cm is: ' + Math.PI * r * r ;
    document.getElementById('para1').innerHTML = 'The perimeter of circle with
radius 20cm is: ' + 2 * Math.PI * r ;
}

</script>

</body>
</html>
```

c) Average.html

```
<!DOCTYPE html>
```

```
<html>
<head>
<title>
Sum and Average
</title>
</head>
<body>
<h2>
Calculates the sum and average
</h2>
Enter Number 1:<input id="no_input_1"><br />
Enter Number 2:<input id="no_input_2"><br />
Enter Number 3:<input id="no_input_3"><br />
Enter Number 4:<input id="no_input_4"><br />
Enter Number 5:<input id="no_input_5"><br />
Enter Number 6:<input id="no_input_6"><br />
<p>
Click the following button to get the area and perimeter of circle.
</p>
<form>
<input type = "button" value = "Click me for sum and average calculation" onclick = "fun();"/>
<button onclick="document.getElementById('myInput').value = "">Click here to clear</button>
</form>
<p id = "para"></p>
<p id = "para1"></p>
<script type = "text/javascript">
var no1,no2,no3,no4,no5,no6;
function fun() {

no1=Number(document.getElementById("no_input_1").value);
no2=Number(document.getElementById("no_input_2").value);
no3=Number(document.getElementById("no_input_3").value);
no4=Number(document.getElementById("no_input_4").value);
no5=Number(document.getElementById("no_input_5").value);
no6=Number(document.getElementById("no_input_6").value);
var sum=no1+no2+no3+no4+no5+no6;
var avg=sum/6;
document.getElementById('para').innerHTML = 'The sum of given numbers is: '+sum ;
document.getElementById('para1').innerHTML = 'The average is: '+avg;
}
</script>
```

OUTPUT:

a)



b)



Reads a radius and print the area and circumference of the circle

Here the radius of circle is 20cm

Click the following button to get the area and perimeter of circle.



Reads a radius and print the area and circumference

Here the radius of circle is 20cm

Click the following button to get the area and perimeter of circle.





Reads a radius and print the area and circumference of the circle

Here the radius of circle is 20cm

Click the following button to get the area and perimeter of circle.

The area of circle with radius 20cm is: 1256.6370614359173

The perimeter of circle with radius 20cm is: 125.66370614359172



C)

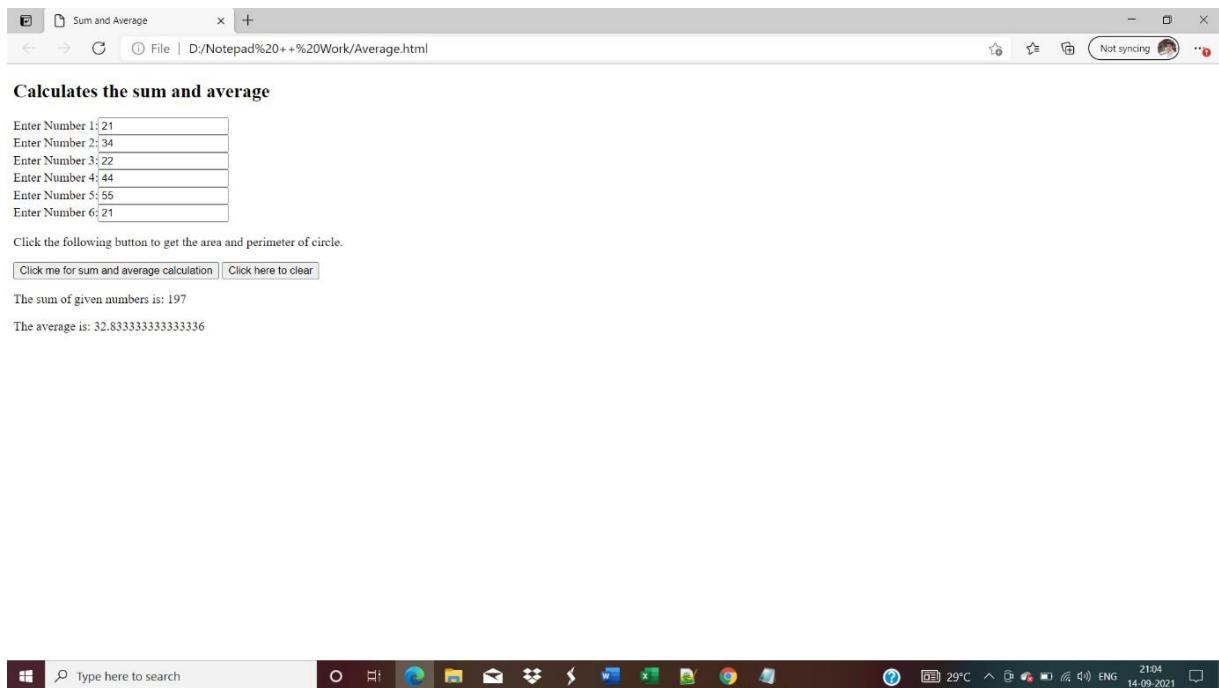


Calculates the sum and average

Enter Number 1:	<input type="text"/>
Enter Number 2:	<input type="text"/>
Enter Number 3:	<input type="text"/>
Enter Number 4:	<input type="text"/>
Enter Number 5:	<input type="text"/>
Enter Number 6:	<input type="text"/>

Click the following button to get the area and perimeter of circle.





RESULT:

Thus, the creation of function to find odd or even, area and circumference of the circle using alert box, display total and average value using JavaScript is executed successfully.

EX.NO:3(B)	IMPLEMENTATION OF CONTROL STATEMENT IN JAVASCRIPT
11/09/2021	

PROBLEM STATEMENT:

- i) Write a Script to input value for ‘n’ and display n-elements of Fibonacci series.
- ii) Write a Script to input value for ‘n’ and display the factorial of n.

AIM:

- i)To Write a Script to input value for ‘n’ and display n-elements of Fibonacci series.
- ii)To Write a Script to input value for ‘n’ and display the factorial of n.

DESCRIPTION:

1. <script>-used to embed a client-side script (JavaScript).
2. <button>-defines a clickable button.
3. <style>: Defines style information (CSS) for a document.
4. <p>: Paragraph tag is used to display text in paragraphs.

PROGRAM:

i)Fibonacci.html

```
<html>
<head>
<title> Fibonacci Series </title>
</head>
<body>
<script>
// declaration of the variables
var n1 = 0, n2 = 1, next_num, i;
var num = parseInt (prompt (" Enter the limit for Fibonacci Series "));
document.write( "Fibonacci Series: ");
for ( i = 1; i <= num; i++)
{ document.write (" <br> " + n1); // print the n1
next_num = n1 + n2; // sum of n1 and n2 into the next_num

n1 = n2; // assign the n2 value into n2
n2 = next_num; // assign the next_num into n2
}
</script>
```

```
</body>
</html>
```

ii)Factorial.html

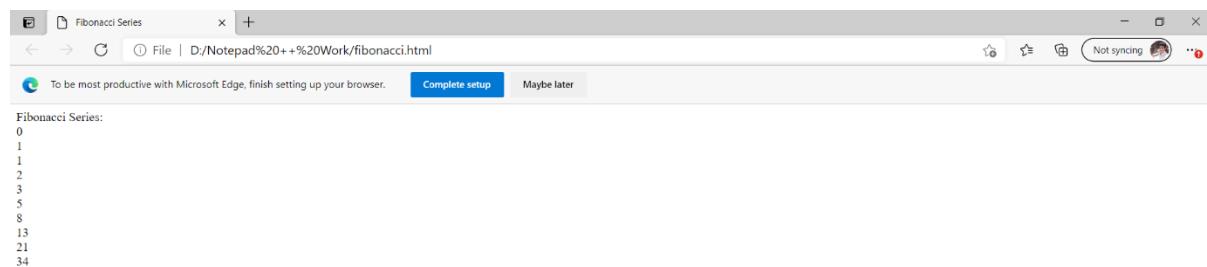
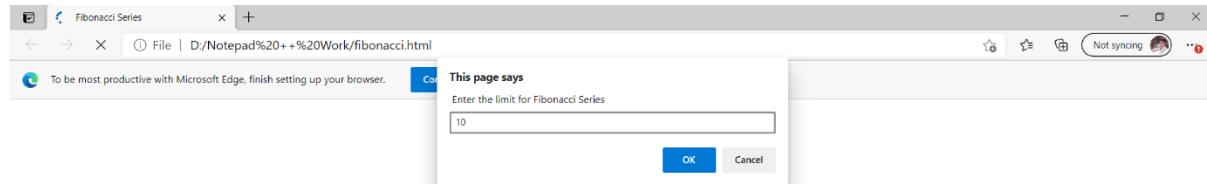
```
<!DOCTYPE html>
<html>
<head>
</head>
<body style = "text-align: center; font-size: 20px;">
<h1> Factorial </h1>
Enter a number: <input id = "num">
<br><br>
<button onclick = "fact()"> Factorial </button>
<p id = "res"></p>
<script>
function fact(){
var i, num, f;
f = 1;
num = document.getElementById("num").value;
for(i = 1; i <= num; i++)
{
f = f * i;
}
i = i - 1;
document.getElementById("res").innerHTML = "The factorial of the number "
+ i + " is: " + f ;
}
</script>
</body>
</html>

</body>
</html>
```

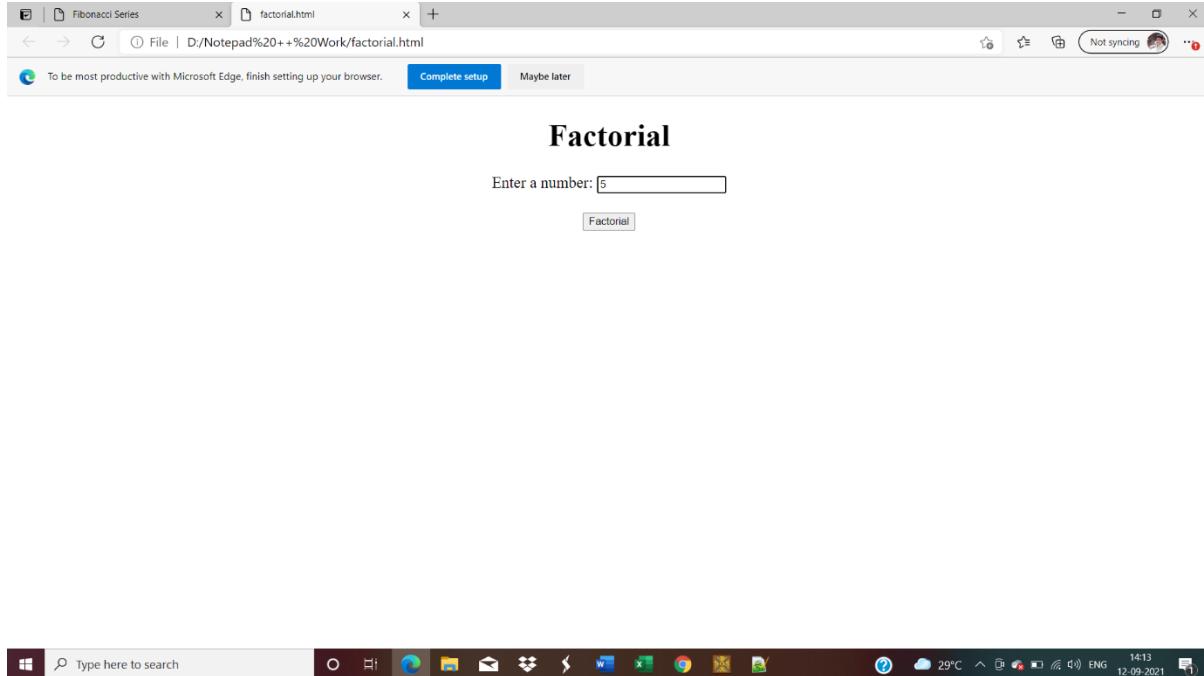
OUTPUT:

i)

Fibonacci series



II) Factorial of n:



RESULT:

Thus, the implementation of control statement Fibonacci series, display the factorial of n using a JavaScript is executed successfully.

EX.NO:3(C)	IMPLEMENTATION OF BUILT-IN FUNCTIONS IN JAVASCRIPT
14/09/2021	

PROBLEM STATEMENT:

- i) Write a program using string functions to find whether the given text/string is a palindrome or not.
- ii) Write a program using math function to accept n elements in an array and print the maximum and minimum number.

AIM:

i) To Write a program using string functions to find whether the given text/string is a palindrome or not.

ii) To write a program using math function to accept n elements in an array and print the maximum and minimum number.

DESCRIPTION:

1. <script>-used to embed a client-side script (JavaScript).
2. <button>-defines a clickable button.
3. <style>: Defines style information (css) for a document.
4. <p>: Paragraph tag is used to display text in paragraphs.

PROGRAM:

Minmax.html

```
<!DOCTYPE html>
<html>

<head>
    <title>
        Find the min/max element
        of an Array using JavaScript
    </title>
</head>

<body style="background-color:linen;">
    <center> <h1 style="color: green">
        <b>Find the min/max element of
        an Array using JavaScript</b>
    </h1>
```

<p>Click on the button below to find out the minimum and maximum of the array [10, 20, 30, 40, 50]</p>

```
<p>Minimum element is: <span class="min">
</span>
<br>Maximum Element is: <span class="max">
</span></p>
<button onclick="findMinMax()">
    Click to check
</button>
</center>
<script>
    function findMinMax() {
        array = [50, 60, 20, 10, 40];
        minValue = Math.min(...array);
        maxValue = Math.max(...array);
        document.querySelector(
            '.min').textContent = minValue;
        document.querySelector(
            '.max').textContent = maxValue;
    }
</script>
</body>

</html>
```

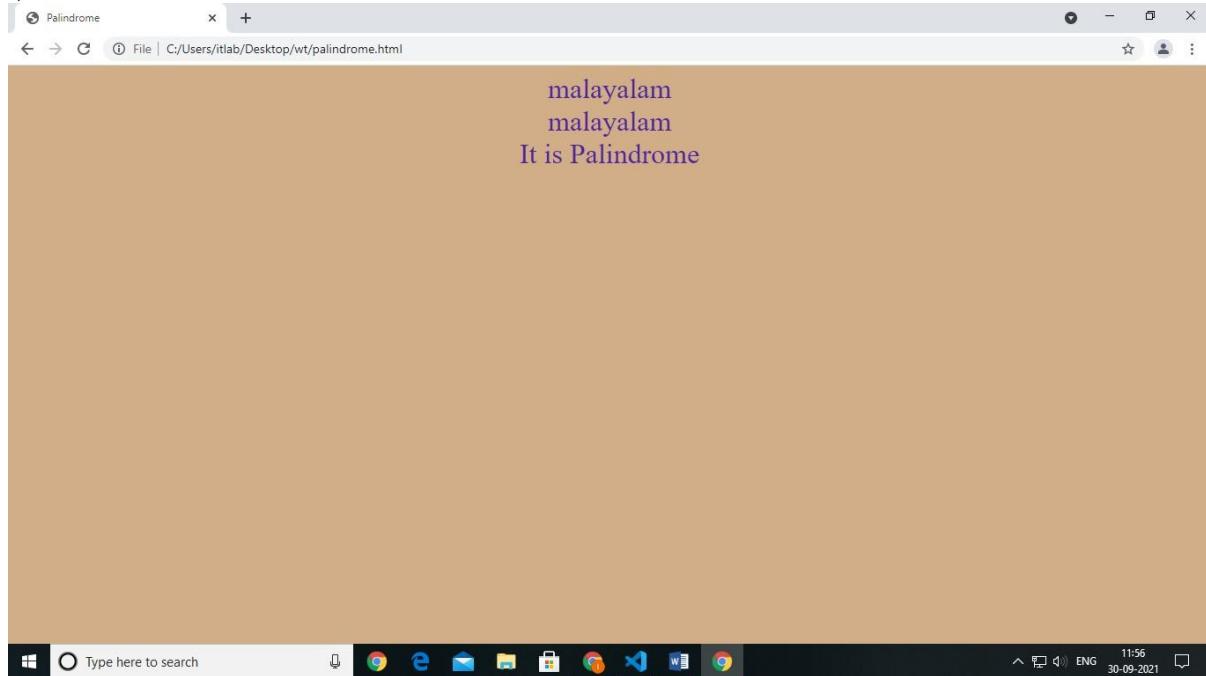
Palindrome.html

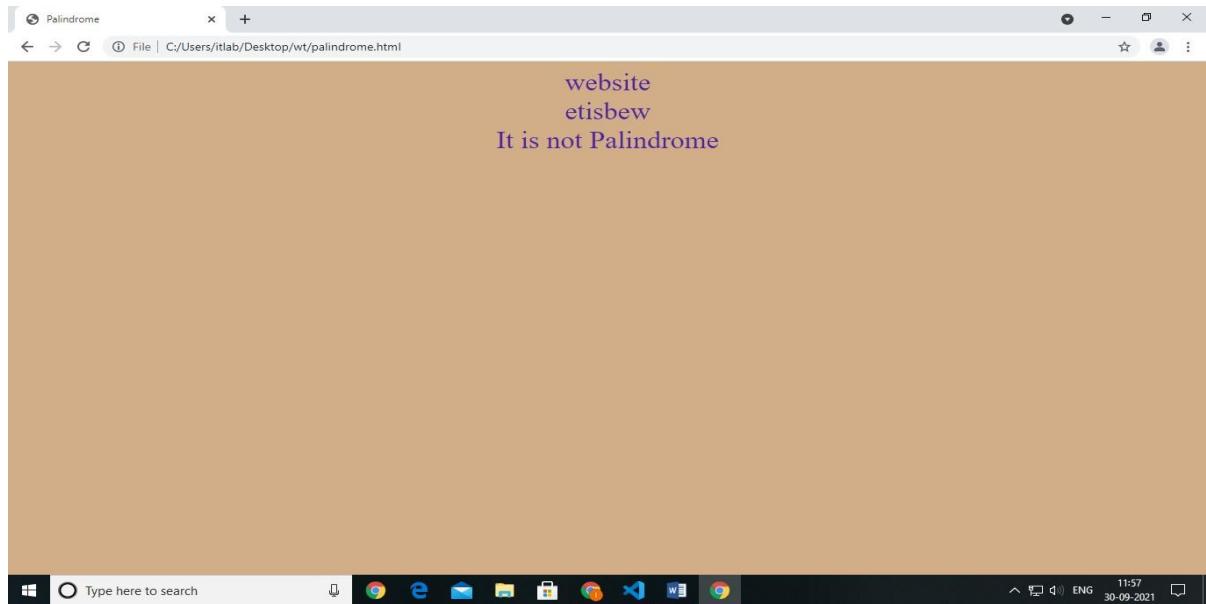
```
<html>
    <head>
        <title>Palindrome</title>
    </head>
    <body style="background-color: linen;font-size: xx-large;color: maroon;">
        <center>
            <script type="text/javascript">
                var a,b,c;
                a=prompt("Enter a String");
                b="";
                c=a.length;
                document.write(a);
                while(0<=c)
                {
                    b=b+a.charAt(c);
                    c=c-1;
                }
                document.write("<br>"+b+"<br>");
                if(a==b)
```

```
{  
    document.write("It is Palindrome");  
}  
else  
{  
    document.write("It is not Palindrome");  
}  
</script>  
</center>  
</body>  
</html>
```

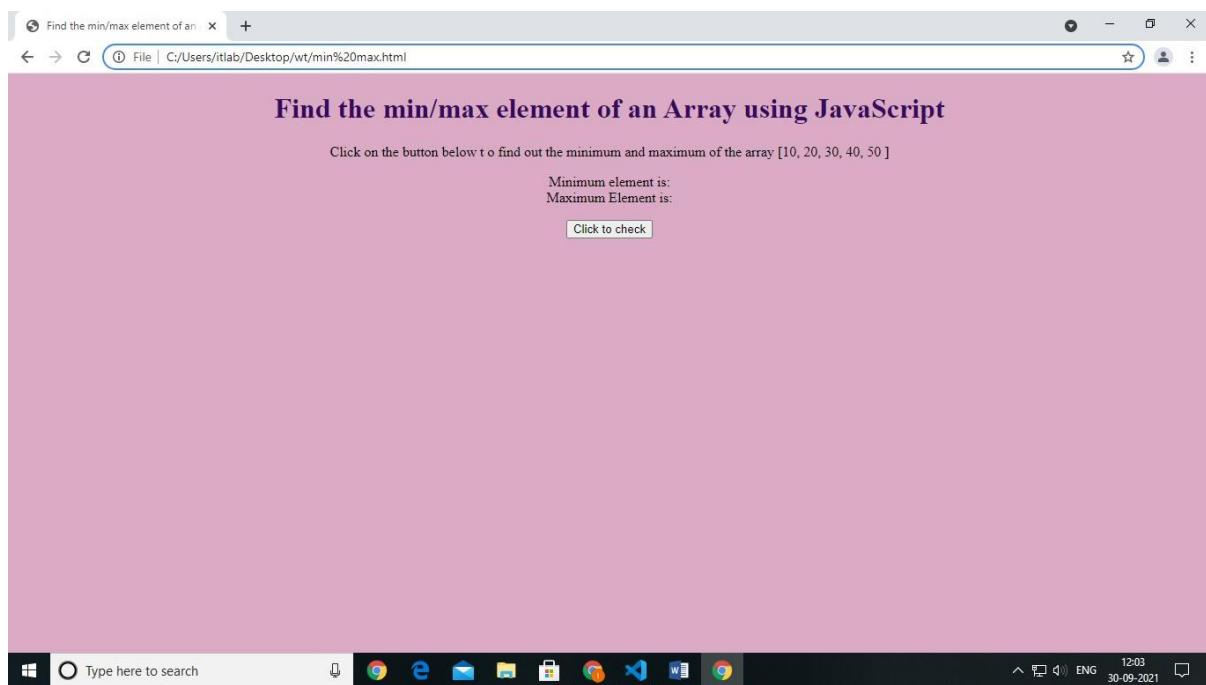
OUTPUT:

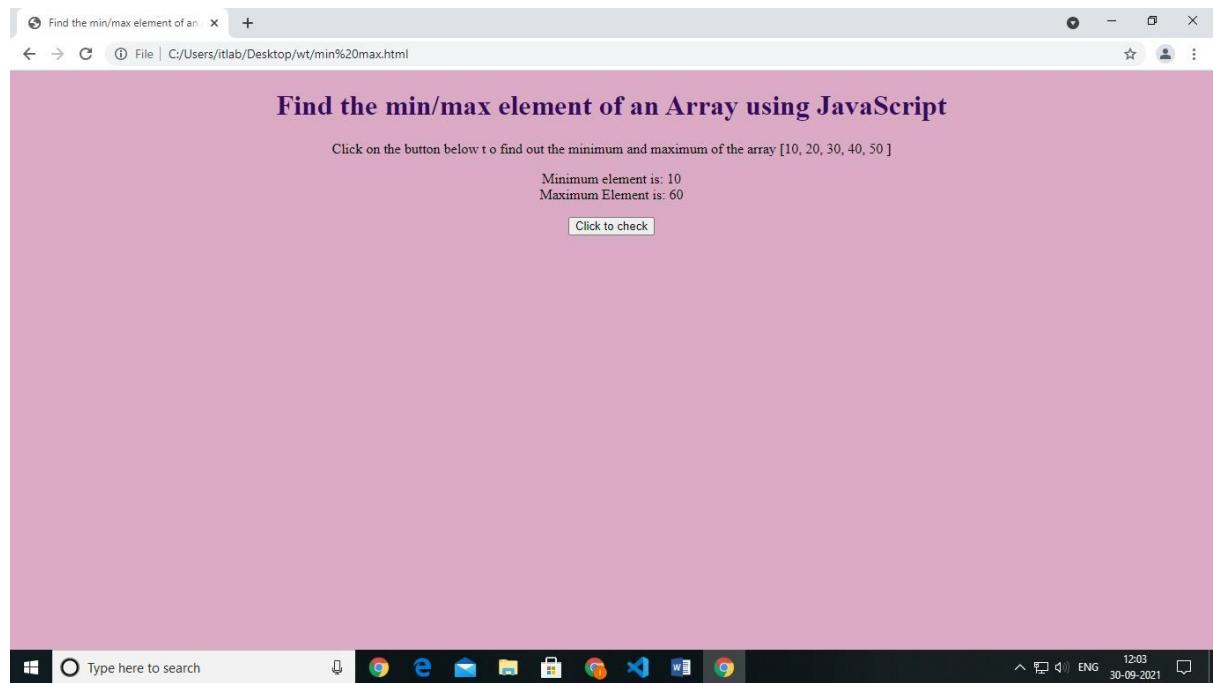
i) **PALINDROME**





II) MAX / MIN:





RESULT:

Thus, the implementation

- i)the given text/string is a palindrome or not of built-in functions
- ii) to find maximum and minimum,
in JavaScript is executed successfully.

EX.NO:4(A)	CREATION OF FEEDBACK FORM USING HTML
16/09/2021	

PROBLEM STATEMENT:

Create a Feedback form for a student symposium using Text box, Text Area, radio button, checkbox, drop down list box, buttons and validate the entries using Java script.

AIM:

To Create a Feedback form for a student symposium using Text box, Text Area, radio button, checkbox, drop down list box, buttons and validate the entries using Java script.

DESCRIPTION:

1. <form>: used to create an HTML form for user input.
2. <input>: displayed in many ways, depending on the type attribute.
3. <script>: used to embed a client-side script (JavaScript).
4. <button>: defines a clickable button.
5. <option>: defines an *option* in a select list.

PROGRAM:

```
<!DOCTYPE html>
<html>
<head>
<title>STUDENTS SYMPOSIUM FORM</title>
<script>
function myShow()
{
    var x=document.forms["myForm"]["name"].value;
    if(x == "")
    {
        alert("PLEASE FILL NAME TEXT BOX");
        return false;
    }
    else{
        var x =document.forms["myForm"]["name"].value;
        var y =document.forms["myForm"]["no"].value;
        var q=document.getElementById("dropdown").value;
        if(document.getElementById("me").checked){
            var z=document.forms["myForm"]["me"].value;
        }
        else {
            var z=document.forms["myForm"]["fe"].value;
        }
    }
}</script>
```

```
</head>
<body style="background-color:#810541;font-size:large;font-style:normal;font-family:'Times New Roman', Times, serif;color: white;">
<form name="myForm">
<div class="container">
<center><h1 style="color:platinum;font-size:xx-large;font-family: Verdana, Geneva, Tahoma, sans-serif;"><b>STUDENTS SYMPOSIUM FORM</b></h1></center>
    <align-left>
        <hr color="black">
        <h3 style="font-style: inherit;color:gold;"><marquee direction ="right">STUDENTS SYMPOSIUM 2020</marquee></h3>
        <hr color="black">
        <label for="name"><b>NAME:</b></label>
        <input type="text" placeholder="ENTER YOUR NAME" name="name" id="name" maxlength="25">
        <br/><br/>
        <label for="no"><b>PHONE NUMBER:</b></label>
        <input type="number" name="no" placeholder="ENTER YOUR NUMBR" onkeypress="if(this.value.length==10) return false" id="no">
        <br/><br/>
        <label for="gen"><b>GENDER:</b></label>
        <input name="gender" id="me" type="radio" value="MALE" placeholder="Male">MALE
        <input name="gender" id="fe" type="radio" value="FEMALE" placeholder="Female">FEMALE
        <br/><br/>
        <b><label for="des">ARE YOU INTERESTED IN:</label></b><br/>
        <input type="checkbox" id="interest" name="person" value="symposium">
        <label for="interest">PAPER PRESENTATION </label><br>
        <input type="checkbox" id="interest" name="person" value="symposium">
        <label for="interest">MEME CREATION </label><br>
        <input type="checkbox" id="interest" name="person" value="symposium">
        <label for="interest">ESSAY COMPETITION </label><br>
        <input type="checkbox" id="interest" name="person" value="symposium">
        <label for="interest">MUSIC COMPETITION </label><br><br>
        <label for="of"><b>DEPARTMENT:</b></label>
        <select id="dropdown" name="dropdown">
            <option id="a" value="HTML">COMPUTER SCIENCE<br/>ENGINEERING</option>
            <option id="b" value="CSS">INFORMATION TECHNOLOGY</option>
            <option id="c" value="JAVASCRIPT">MECHANICAL<br/>ENGINEERING</option>
            <option id="d" value="XML">CIVIL ENGINEERING</option>
            <option id="e" value="JSP">ELECTRICAL ENGINEERING</option>
        </select><br/><br/>
```

```
<b><label for="desc">FEEDBACK:</label></b>
<textarea name="desc" id="desc"></textarea>
<center>
<input type="submit" class="button" value="SUBMIT" onclick="myShow()">
<input type="reset" class="button" value="CLEAR"> </center>
</align-left>
</div>
</form>
</body>
</html>
```

OUTPUT:

STUDENTS SYMPOSIUM FORM

STUDENTS SYMPOSIUM 2020

NAME: DEEKSHANA

PHONE NUMBER: 9

GENDER: MALE FEMALE

ARE YOU INTERESTED IN:

PAPER PRESENTATION

MEME CREATION

ESSAY COMPETITION

MUSIC COMPETITION

DEPARTMENT: INFORMATION TECHNOLOGY

FEEDBACK: Excellent work

SUBMIT CLEAR

RESULT:

Thus, the implementation of feedback form for a student symposium using HTML is executed successfully.

EX.NO:4(B)	VALIDATION OF HTML FORMS
16/09/2021	

PROBLEM STATEMENT:

Write a Client-Side Script for validating student course registration form using DHTML. The length of the Student Name must not exceed 25 characters, the phone number field must not accept alphabets or special characters, it must not exceed 10 numbers. Use components such as Radio-buttons and checkboxes.

AIM:

To Write a Client-Side Script for validating student course registration form using DHTML. The length of the Student Name must not exceed 25 characters, the phone number field must not accept alphabets or special characters, it must not exceed 10 numbers. Use components such as Radio-buttons and checkboxes.

DESCRIPTION:

1. <form>: used to create an HTML form for user input.
2. <input>: displayed in many ways, depending on the type attribute.
3. <script>: used to embed a client-side script (JavaScript).
4. <button>: defines a clickable button.
5. <option>: defines an *option* in a select list.

PROGRAM:

```
<html>
<head>
<script type="text/javascript" src="validate.js"></script>
</head>
<body>
<form action="#" name="StudentRegistration" onsubmit="return(validate());">
<table cellpadding="2" width="20%" bgcolor="99FFFF" align="center">
cellspacing="2">
<tr>
<td colspan=2>
<center><font size=4><b>Student Registration Form</b></font></center>
</td>
```

```
</tr>
<tr>
<td>Name</td>
<td><input type="text" name="textnames" id="textname" size="30"></td>
</tr>
<tr>
<td>Father Name</td>
<td><input type="text" name="fathername" id="fathername" size="30"></td>
</tr>
<tr>
<td>Postal Address</td>
<td><input type="text" name="paddress" id="paddress" size="30"></td>
</tr>
<tr>
<td>Personal Address</td>
<td><input type="text" name="personaladdress" id="personaladdress" size="30"></td>
</tr>
<tr>
<td>Sex</td>
<td><input type="radio" name="sex" value="male" size="10">Male
<input type="radio" name="sex" value="Female" size="10">Female</td>
</tr>
<tr>
<td>City</td>
<td><select name="City">
<option value="-1" selected>select..</option>
<option value="New Delhi">NEW DELHI</option>
<option value="Mumbai">MUMBAI</option>
<option value="Goa">GOA</option>
<option value="Patna">PATNA</option>
```

```
</select></td>
</tr>
<tr>
<td>Course</td>
<td><select name="Course">
<option value="-1" selected>select..</option>
<option value="B.Tech">B.TECH</option>
<option value="MCA">MCA</option>
<option value="MBA">MBA</option>
<option value="BCA">BCA</option>
</select></td>
</tr>
<tr>
<td>District</td>
<td><select name="District">
<option value="-1" selected>select..</option>
<option value="Nalanda">NALANDA</option>
<option value="UP">UP</option>
<option value="Goa">GOA</option>
<option value="Patna">PATNA</option>
</select></td>
</tr>
<tr>
<td>State</td>
<td><select Name="State">
<option value="-1" selected>select..</option>
<option value="New Delhi">NEW DELHI</option>
<option value="Mumbai">MUMBAI</option>
<option value="Goa">GOA</option>
<option value="Bihar">BIHAR</option>
</select></td>
</tr>
```

```
<tr>
<td>PinCode</td>
<td><input type="text" name="pincode" id="pincode" size="30"></td>
</tr>
<tr>
<td>EmailId</td>
<td><input type="text" name="emailid" id="emailid" size="30"></td>
</tr>
<tr>
<td>DOB</td>
<td><input type="text" name="dob" id="dob" size="30"></td>
</tr>
<tr>
<td>MobileNo</td>
<td><input type="text" name="mobileno" id="mobileno" size="30"></td>
</tr>
<tr>
<td><input type="reset"></td>
<td colspan="2"><input type="submit" value="Submit Form" /></td>
</tr>
</table>
</form>
</body>
</html>
```

OUTPUT:

The screenshot shows a Microsoft Edge browser window with the title bar "reg form.html?textnames= X reg form.html". The address bar displays "file:///C:/Users/itlab/Desktop/reg%20form.html". The main content area contains a "Student Registration Form" with the following data:

Student Registration Form	
Name	Deekshana V
Father Name	Arun P
Postal Address	vijaydevarakonda
Personal Address	nagar
Sex	<input type="radio"/> Male <input checked="" type="radio"/> Female
City	GOA
Course	MBA
District	GOA
State	GOA
PinCode	600089
EmailId	vds@gmail.com
DOB	09-10-1995
MobileNo	6380313127
<input type="button" value="Reset"/> <input type="button" value="Submit Form"/>	

RESULT:

Thus, the implementation of Validation of HTML Form is executed successfully.

EX.NO:5(A)	CREATION OF SHOPPING CART
28/09/2021	

PROBLEM STATEMENT:

Create a shopping cart with the following products. Chocolates unit in boxes and Rs.50 each. Apple units in kg and Rs.110 per kg. Milk unit in packets and Rs.25 per packet. Juices units in bottles and Rs.60 per bottle. Biscuits units in packets and Rs.20 per packet. The user is allowed enter the quantity required and calculate the grand total of all the products on click of a button.

AIM:

To create a shopping cart with the following products. Chocolates unit in boxes and Rs.50 each. Apple units in kg and Rs.110 per kg. Milk unit in packets and Rs.25 per packet. Juices units in bottles and Rs.60 per bottle. Biscuits units in packets and Rs.20 per packet. The user is allowed enter the quantity required and calculate the grand total of all the products on click of a button.

DESCRIPTION:

- 1) <form>: used to create an HTML form for user input.
- 2) <input>: displayed in many ways, depending on the type attribute.
- 3) <script>: used to embed a client-side script (JavaScript).
- 4) <button>: defines a clickable button.
- 5) <style>: Defines style information (CSS) for a document.
- 6) <table>: Table tag creates a table with the required no of rows and cols.

PROGRAM:

```
<CENTER>
<h1 style="color:red;"><b>ONLINE SHOPPING</b></h1>
<hr>
<h3 style="color:rgb(0, 255, 13); font-weight: bold;"><b>LIST OF ITEMS</b></h3>
<thead>
<table border="5">
<tr>
<th scope="col">PRODUCT</th>
<th scope="col">IMAGE</th>
<th scope="col">UNIT</th>
<th scope="col">PRICE</th>
<th scope="col">QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<th scope="row">CHOCOLATE</th>
<td></td>
<td>1 BOX</td>
<td>Rs.50</td>
<td><input type="number" id="c"></td>
</tr>
<tr>
<th scope="row">APPLE</th>
<td></td>
<td>1 KG</td>
<td>Rs.110</td>

<td><input type="number" id="a"></td>
</tr>

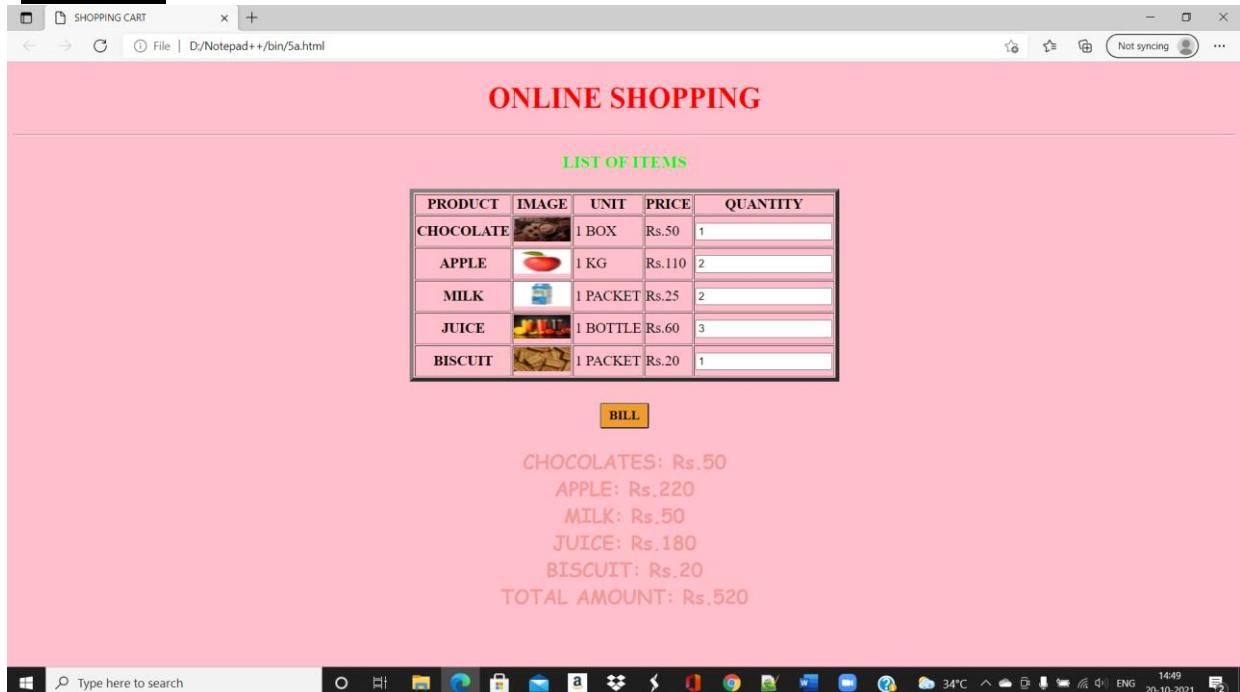
<tr>
<th scope="row">MILK</th>
<td></td>
```

```
<td>1 PACKET</td>
<td>Rs.25</td>
<td><input type="number" id="m"></td>
</tr>
<tr>
<th scope="row">JUICE</th>
<td></td>
<td>1 BOTTLE</td>
<td>Rs.60</td>
<td><input type="number" id="j"></td>
</tr>
<tr>
<th scope="row">BISCUIT</th>
<td></td>
<td>1 PACKET</td>
<td>Rs.20</td>
<td><input type="number" id="b"></td>
</tr>
</tbody>
</table>
<br>
</div>
<div class="class">
<center>
<input type="button" class="button" value="BILL" onclick="myFunb()">
<p id="bil"></p>
</CENTER>
<br>
<script>
function myFunb()
{
var x=document.forms["myForm"]["c"].value;
var y=document.forms["myForm"]["a"].value;
var z=document.forms["myForm"]["m"].value;
var u=document.forms["myForm"]["j"].value;
var w=document.forms["myForm"]["b"].value;
var q= x*50;
var s=y*110;
var i=z*25;
var d=u*60;
var e=w*20;
```

```
var t=parseInt(q)+parseInt(s)+parseInt(i)+parseInt(d)+parseInt(e);
document.getElementById("bil").innerHTML=("<center>CHOCOLATES:
Rs."+q+"<br>APPLE: Rs."+s+"<br>MILK: Rs."+i+"<br>JUICE:
Rs."+d+"<br>BISCUIT: Rs."+e+"<br> TOTAL AMOUNT: Rs."+t+"</center>");  
}
```

```
</script>
</div>
</form>
</body>
</html>
```

OUTPUT:



RESULT:

Thus, the creation of shopping cart with the given products is executed successfully.

EX NO: 5B

CREATION OF CALCULATOR APPLICATION

28/09/2021

PROBLEM STATEMENT:

Write a script to perform calculator application, the HTML document must contain, two text fields for getting input, another one for getting the sign and the result must be displayed using alert dialog box. The computation must be formed using functions. The user defined function must be invoked on a button click event.

AIM:

To write a script to perform calculator application, the HTML document must contain, two text fields for getting input, another one for getting the sign and the result must be displayed using alert dialog box. The computation must be formed using functions. The user defined function must be invoked on a button click event.

PROCEDURE:

- 1) <script>: used to embed a client-side script (JavaScript).
- 2) <form>: used to create an HTML form for user input.
- 3) <button>: defines a clickable button.
- 4) <table>: Table tag creates a table with the required no of rows andcols.
- 5) <input>: displayed in many ways, depending on the type attribute.

PROGRAM:

```
<html>
<head>
    <script>
        //function that display value
        function dis(val)
        {
            document.getElementById("result").value+=val
        }

        //function that evaluates the digit and return result
        function solve()
        {
            let x = document.getElementById("result").value
            let y = eval(x)
            document.getElementById("result").value = y
        }

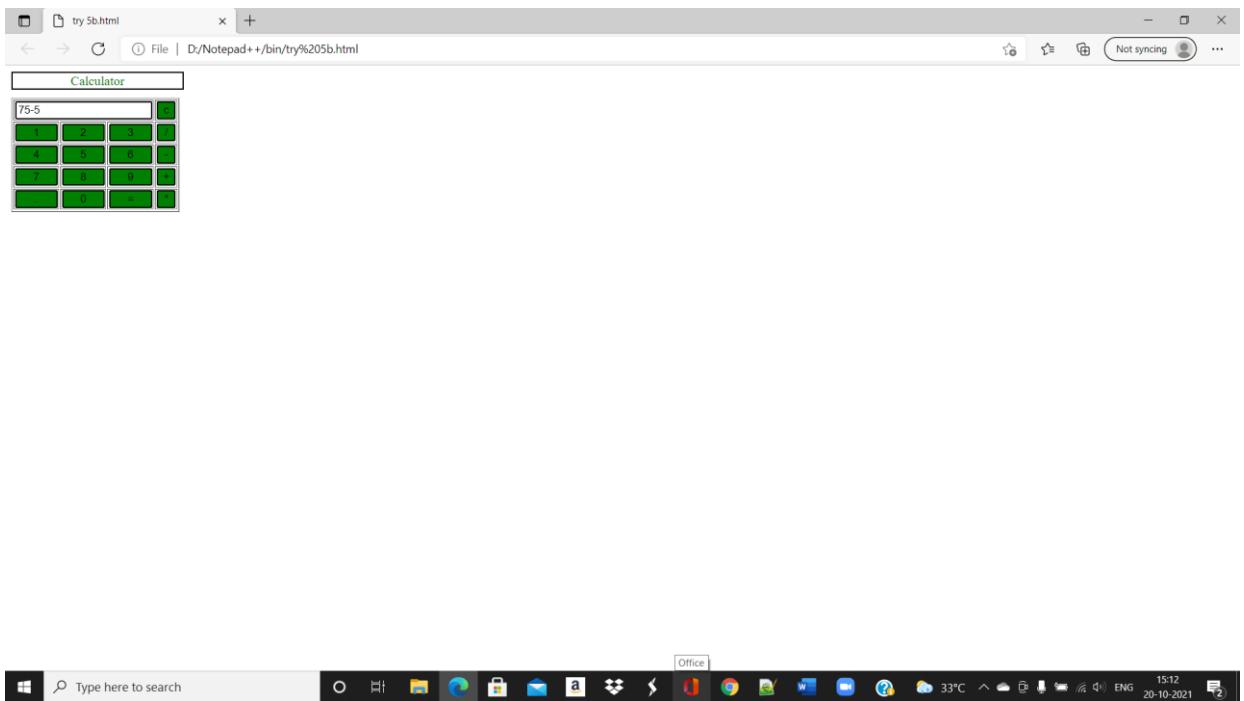
        //function that clear the display
        function clr()
        {
            document.getElementById("result").value = ""
        }
    </script>
    <!-- for styling -->
    <style>
        .title{
            margin-bottom: 10px;
            text-align:center;
            width: 210px;
            color:green;
            border: solid black 2px;
        }

        input[type="button"]
        {
            background-color:green;
            color: black;
            border: solid black 2px;
            width:100%
        }

        input[type="text"]
        {
            background-color:white;
            border: solid black 2px;
            width:100%
        }
    </style>
</head>
<!-- create table -->
<body>
    <div class = title > Calculator</div>
    <table border="1">
        <tr>
            <td colspan="3"><input type="text" id="result"/></td>
            <!-- clr() function will call clr to clear all value -->
```

```
<td><input type="button" value="c" onclick="clr()" /> </td>
</tr>
<tr>
    <!-- create button and assign value to each button -->
    <!-- dis("1") will call function dis to display value -->
    <td><input type="button" value="1" onclick="dis('1')"/> </td>
    <td><input type="button" value="2" onclick="dis('2')"/> </td>
    <td><input type="button" value="3" onclick="dis('3')"/> </td>
    <td><input type="button" value="/" onclick="dis('/')"/> </td>
</tr>
<tr>
    <td><input type="button" value="4" onclick="dis('4')"/> </td>
    <td><input type="button" value="5" onclick="dis('5')"/> </td>
    <td><input type="button" value="6" onclick="dis('6')"/> </td>
    <td><input type="button" value="-" onclick="dis('-')"/> </td>
</tr>
<tr>
    <td><input type="button" value="7" onclick="dis('7')"/> </td>
    <td><input type="button" value="8" onclick="dis('8')"/> </td>
    <td><input type="button" value="9" onclick="dis('9')"/> </td>
    <td><input type="button" value="+" onclick="dis('+')"/> </td>
</tr>
<tr>
    <td><input type="button" value"." onclick="dis('.')"/> </td>
    <td><input type="button" value="0" onclick="dis('0')"/> </td>
    <!-- solve function call function solve to evaluate value -->
    <td><input type="button" value "=" onclick="solve()"/> </td>
    <td><input type="button" value "*" onclick="dis('*')"/> </td>
</tr>
</table>
</body>
</html>
```

OUTPUT:



RESULT:

Thus, the implementation of html DOM calculator application, events is executed successfully.

EX.NO:5(C)	IMPLEMENTATION OF DOM EVENTS
28/09/2021	

PROBLEM STATEMENT:

- i) Write a java script program to create an array and perform various array operations like push, pop, shift, unshift, sort, reverse sort ,compare. Each operations must be invoked as event
- ii) Write a java script function to convert array as key value pairs and implement map methods using HTML DOM events

AIM:

- i) To Write a java script program to create an array and perform various array operations like push, pop, shift, unshift, sort, reverse sort, compare. Each operations must be invoked as event
- ii) To Write a java script function to convert array as key value pairs and implement map methods using HTML DOM events.

DESCRIPTION:

- 1) <script>-used to embed a client-side script (JavaScript).
- 2) <p>: Paragraph tag is used to display text in paragraphs.
- 3) The push() method adds new items to the end of an array.
- 4) The pop() method removes the last element of an array.
- 5) The shift() method removes the first item of an array.
- 6) The unshift() method adds new items to the beginning of an array, and returns the new length.
- 7) The reverse() method reverses the order of the elements in an array.
- 8) The sort() method sorts the elements of an array.
- 9) Compare and Logical operators are used to test for true or false.

PROGRAM:

i) **Array.html**

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Arrays</h2>
<p>The Array.push() method adds new items to the end of an array:</p>
<p id="demo1"></p>
<p>The Array.pop() method removes the last element of an array.</p>
<p id="demo2"></p>
<p>The Array.shift() method removes the first item of an array.</p>
<p id="demo3"></p>
<p>The Array.unshift() method adds new items to the beginning of an array:</p>
<p id="demo4"></p>
<p>The Array.sort() method sorts the elements of an array.</p>
<p id="demo5"></p>
<p>The Array.reverse() method reverses the order of the elements in an array.</p>
<p id="demo6"></p>
<script>
const fruits = ["Banana", "Orange", "Apple", "Mango"]; fruits.push("Kiwi");
document.getElementById("demo1").innerHTML = fruits; fruits.pop();
document.getElementById("demo2").innerHTML = fruits; fruits.shift();
document.getElementById("demo3").innerHTML = fruits; fruits.unshift("Lemon",
"Pineapple"); document.getElementById("demo4").innerHTML = fruits;
document.getElementById("demo5").innerHTML = fruits.sort();
document.getElementById("demo6").innerHTML = fruits.reverse(); var a = [1, 2, 3, 5];
var b = [1, 2, 3, 5];
if(JSON.stringify(a)==JSON.stringify(b)) document.write("True");
else
  document.write("False"); document.write('<br>'); var f=[1, 2, 4, 5];
if(JSON.stringify(a)==JSON.stringify(f)) document.write("True");
else document.write("False");
</script>
</body>
</html>
```

Mapping.html

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Map Objects</h2>
<p>Creating a Map from an Array:</p>
<p id="demo"></p>
<script>
// Create a Map
const fruits = new Map([ ["apples", 800],
["bananas", 600],
["oranges", 700]
]);
```

```
document.getElementById("demo").innerHTML = fruits.get("apples");
</script>
</body>
</html>
```

OUTPUT:



JavaScript Arrays

The Array.push() method adds new items to the end of an array:

Banana,Orange,Apple,Mango,Kiwi

The Array.pop() method removes the last element of an array:

Banana,Orange,Apple,Mango

The Array.shift() method removes the first item of an array:

Orange,Apple,Mango

The Array.unshift() method adds new items to the beginning of an array:

Lemon,Pineapple,Orange,Apple,Mango

The Array.sort() method sorts the elements of an array:

Apple,Lemon,Mango,Orange,Pineapple

The Array.reverse() method reverses the order of the elements in an array:

Pineapple,Orange,Mango,Lemon,Apple

True
False



JavaScript Map Objects

Creating a Map from an Array:

800



RESULT:

Thus, the implementation of html DOM events is executed successfully

EX NO: 6

07/10/2021

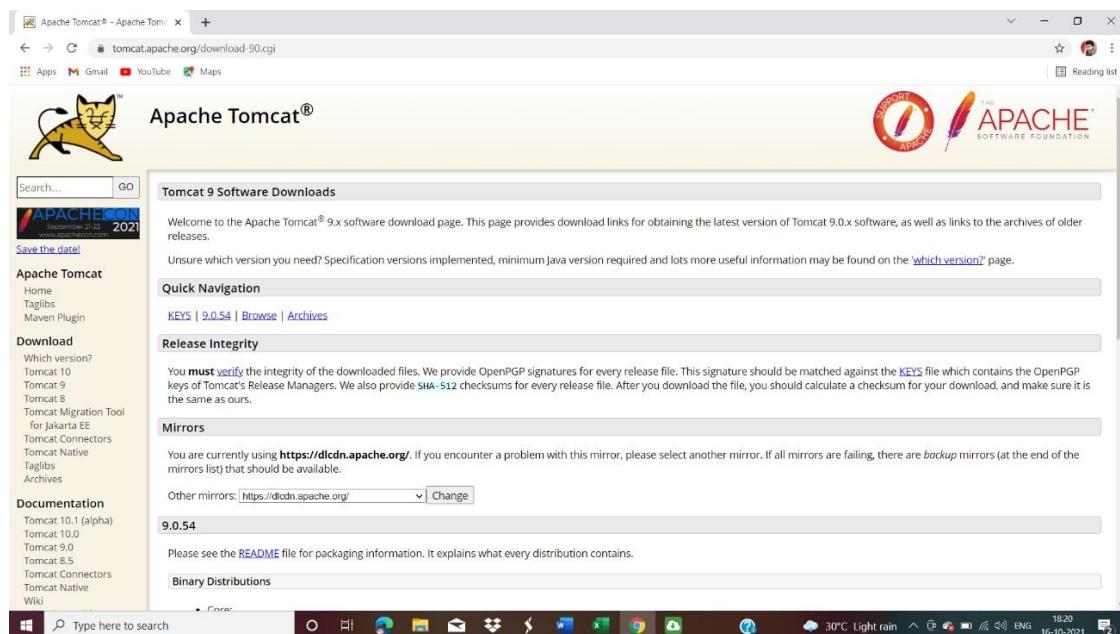
INSTALLATION OF APACHE TOMCAT APPLICATION SERVER

AIM:

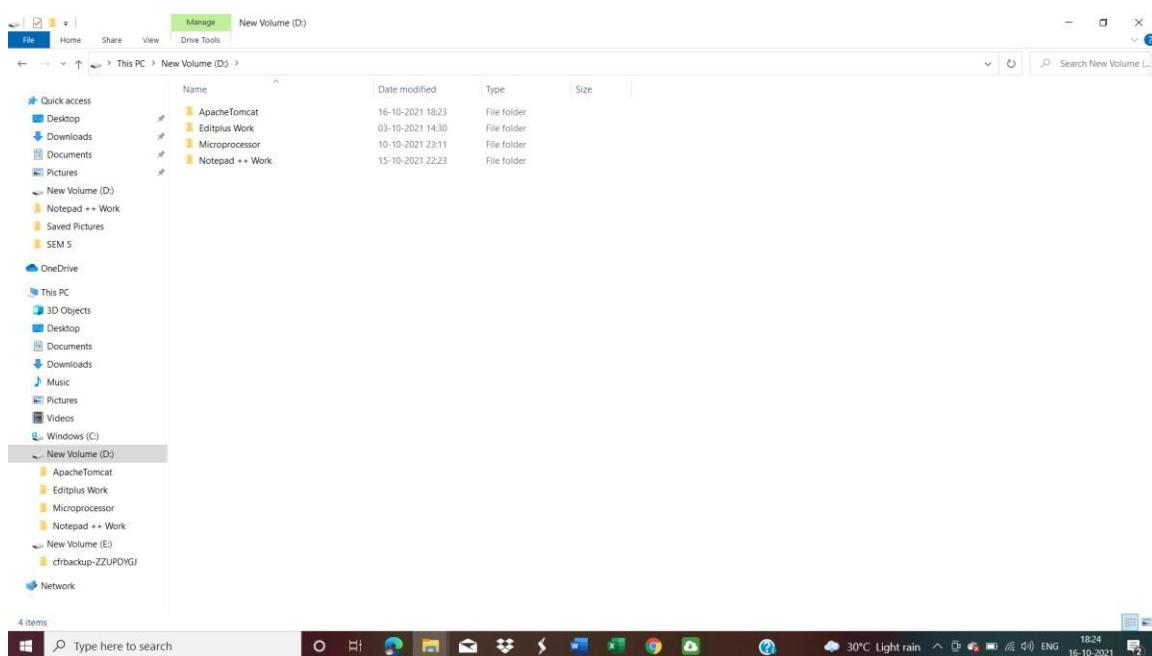
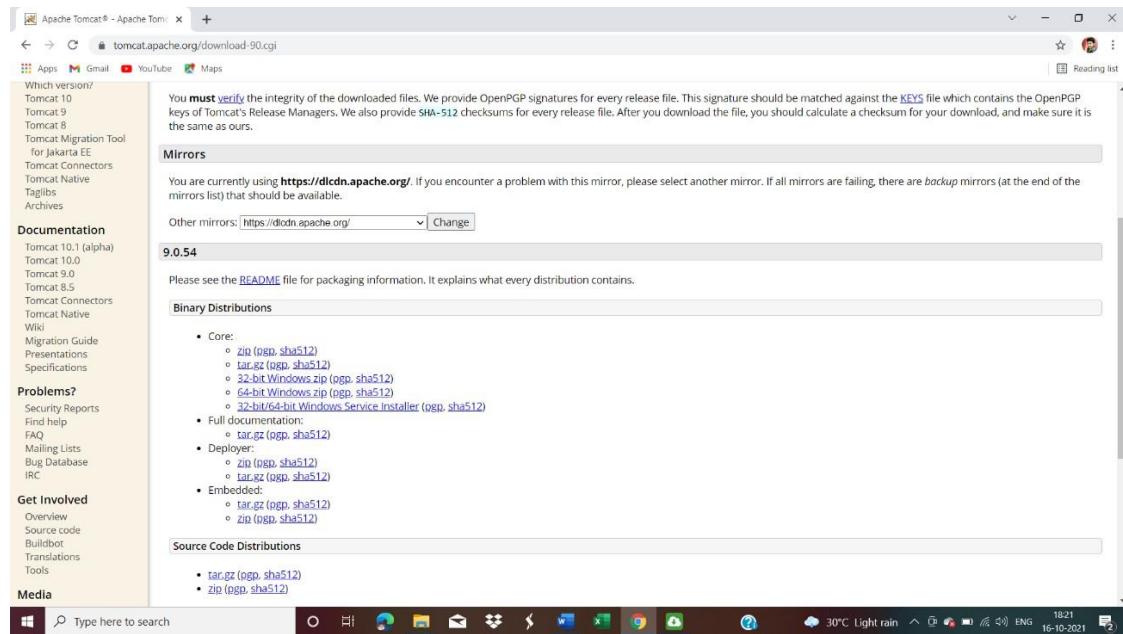
To implement the installation of Apache Tomcat Application server.

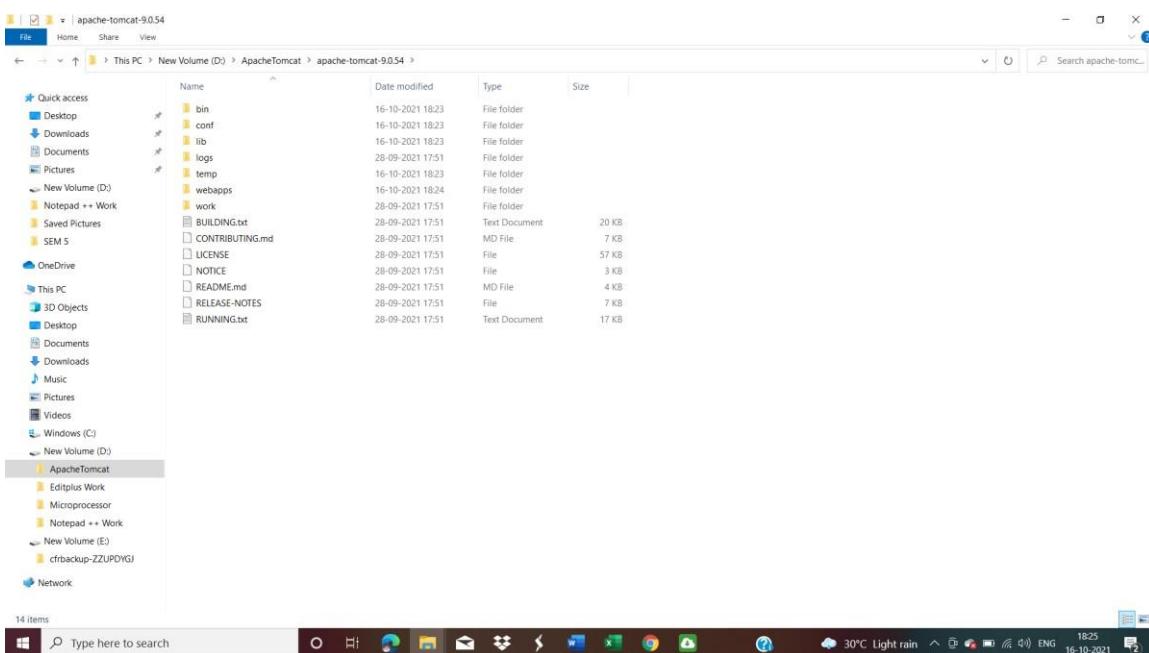
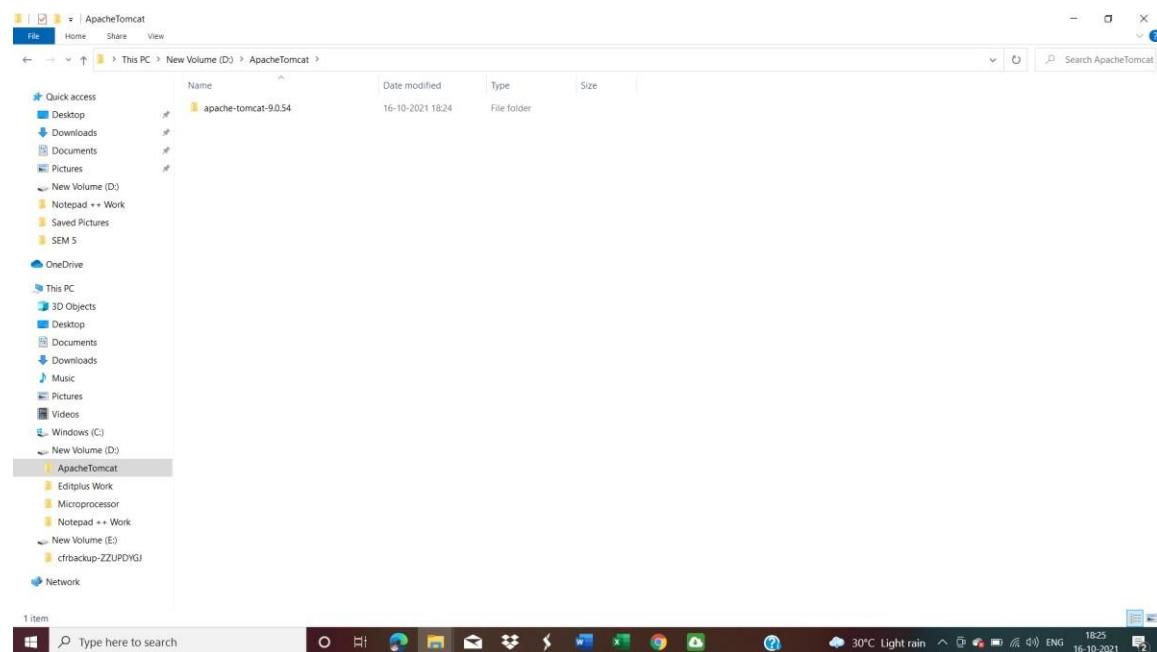
PROCEDURE:

Step 1: Downloading and unzipping Apache Tomcat version 9 for windows 64 bit.
<https://tomcat.apache.org/download-90.cgi>

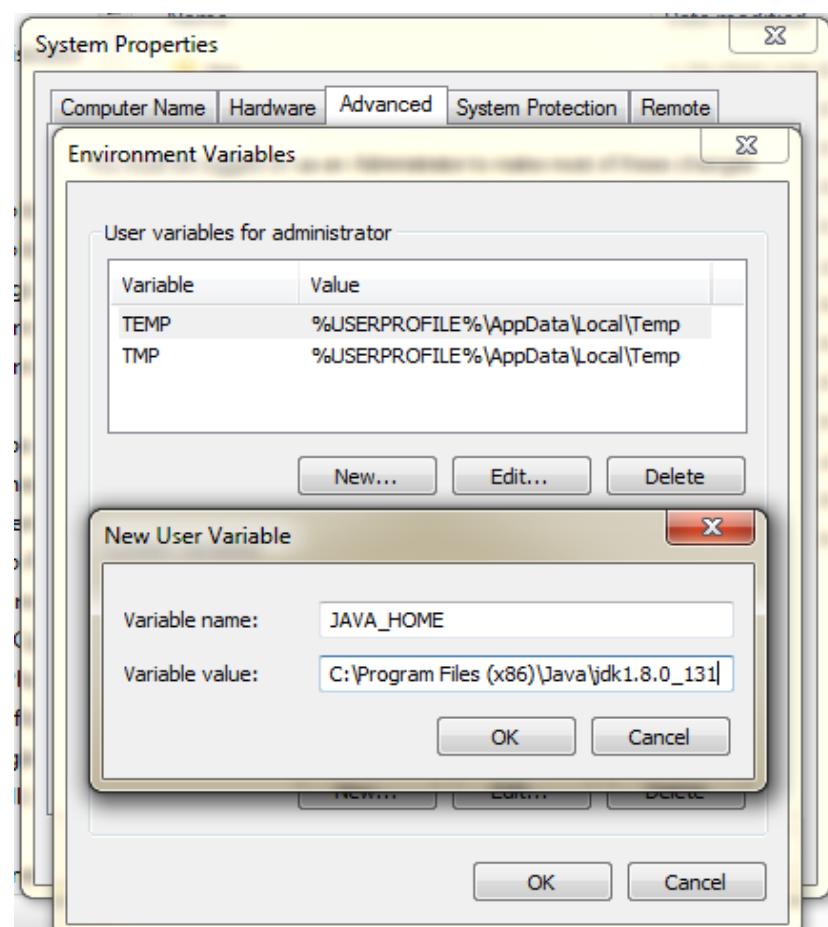


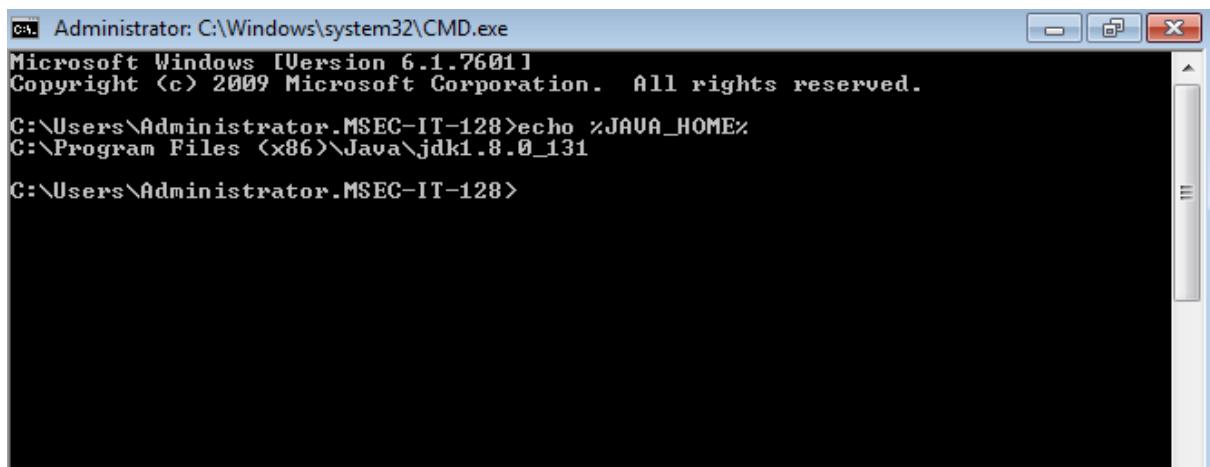
Step2: Create a folder "ApacheTomcat" in any drive. Extract the zip file in the folder and remove the zip file from the folder.





Step3: Verify Tomcat's Java dependencies through command prompt.



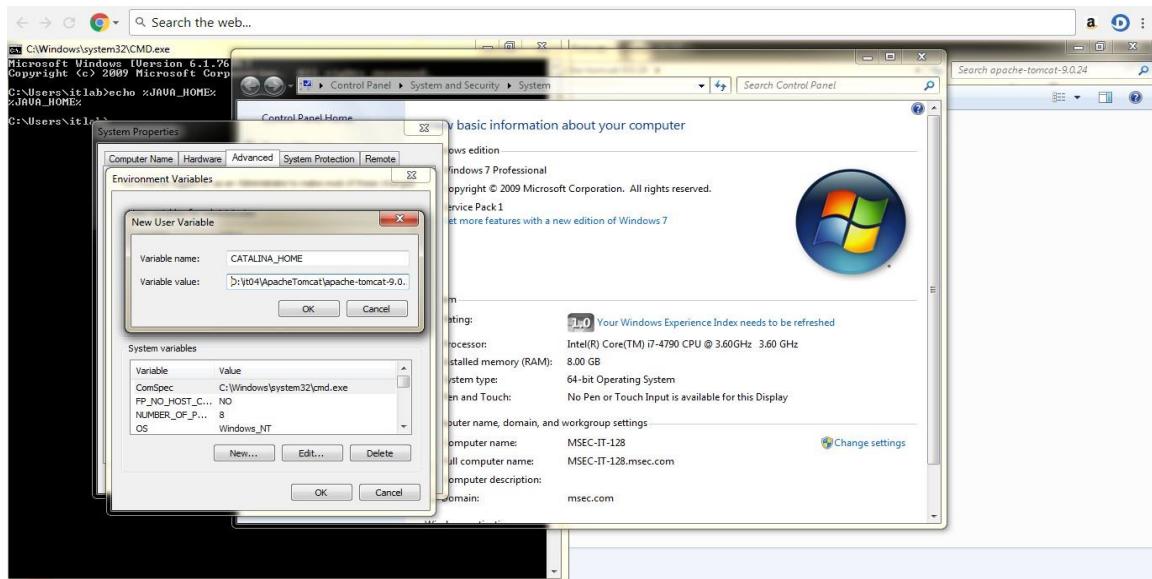


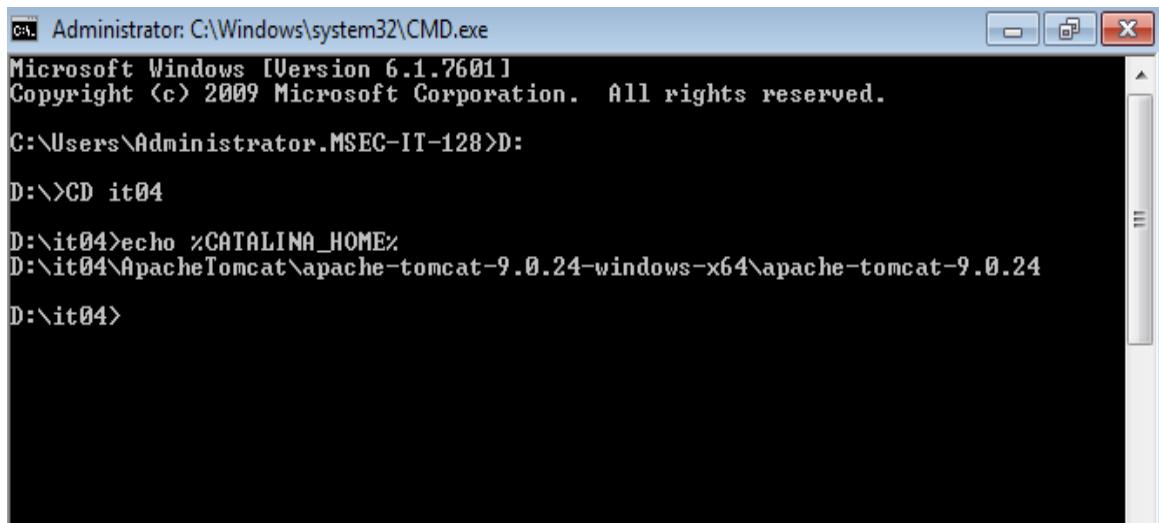
```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Administrator.MSEC-IT-128>echo %JAVA_HOME%
C:\Program Files (x86)\Java\jdk1.8.0_131

C:\Users\Administrator.MSEC-IT-128>
```

Step4: Create an environmental Variable “CATALINA_HOME” and paste the path of Apache Tomcat and verify it through command prompt.





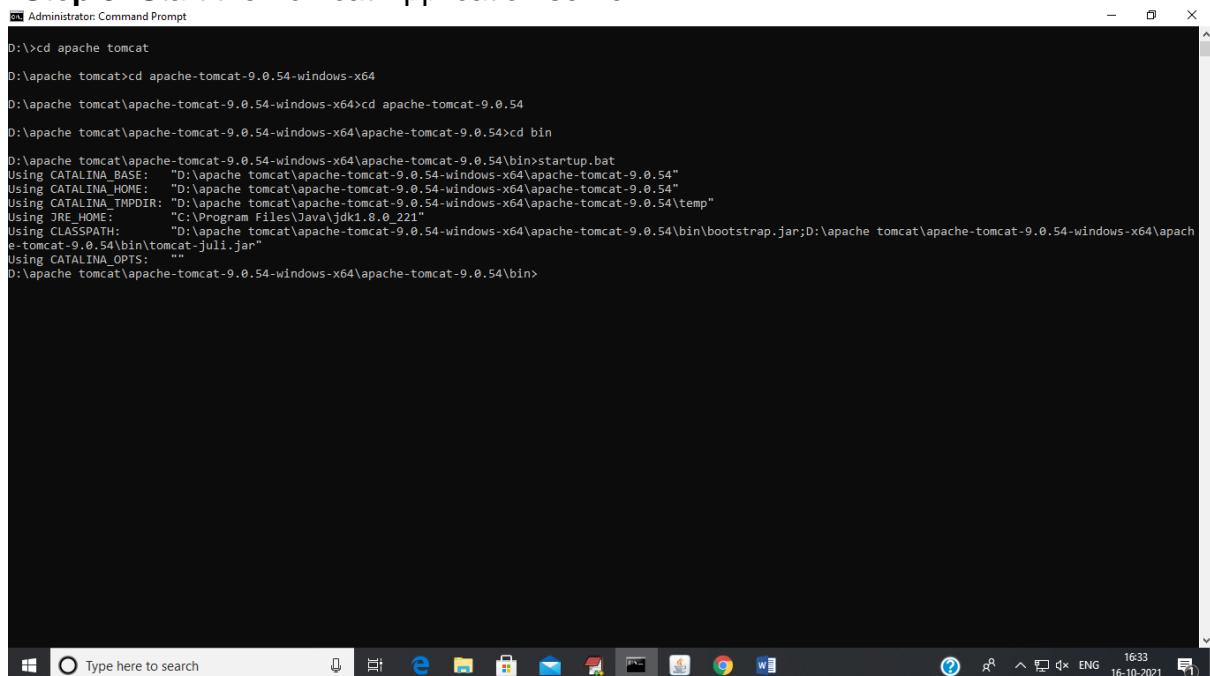
```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Administrator.MSEC-IT-128>D:
D:>>CD it04

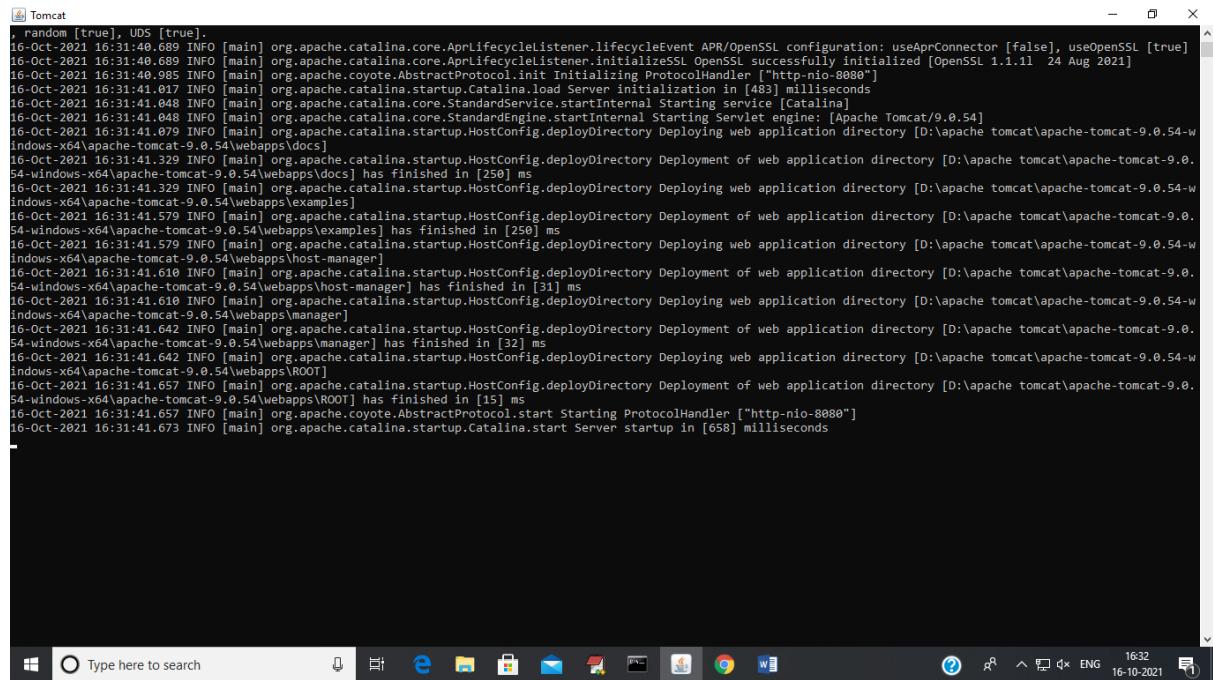
D:\it04>echo %CATALINA_HOME%
D:\it04\ApacheTomcat\apache-tomcat-9.0.24-windows-x64\apache-tomcat-9.0.24

D:\it04>
```

Step 5: Start the Tomcat Application server.

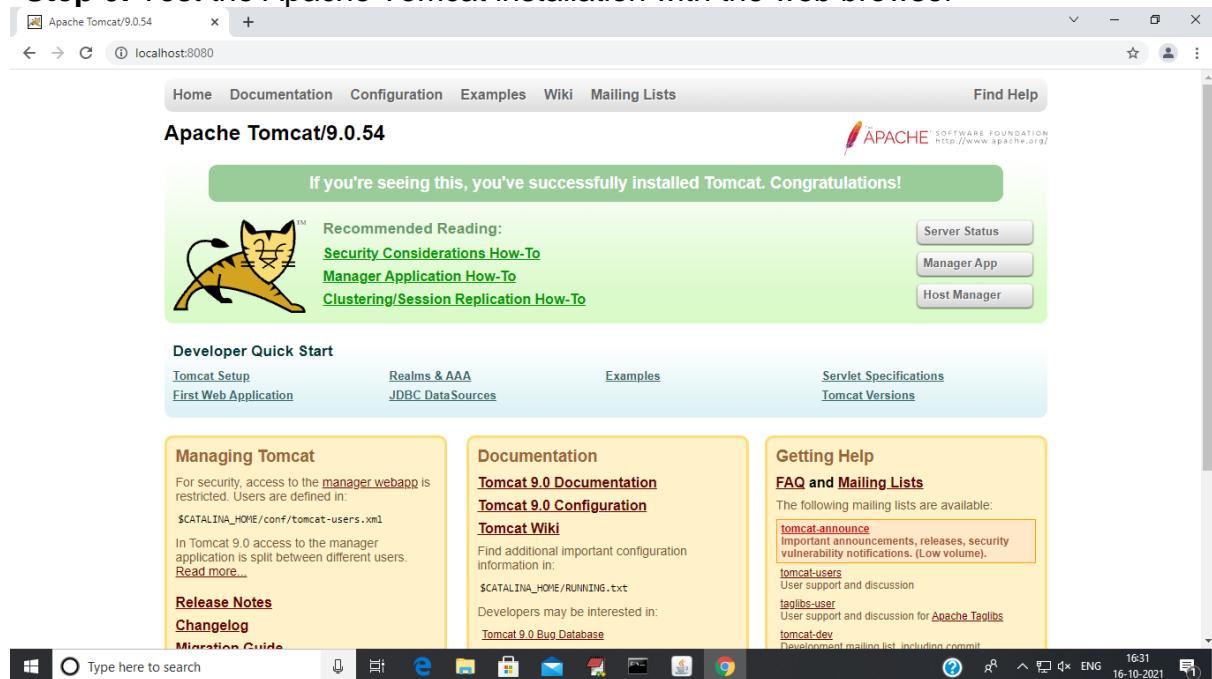


```
Administrator: Command Prompt
D:>>cd apache tomcat
D:\apache tomcat>d apache-tomcat-9.0.54-windows-x64
D:\apache tomcat\apache-tomcat-9.0.54-windows-x64>cd apache-tomcat-9.0.54
D:\apache tomcat\apache-tomcat-9.0.54-windows-x64\apache-tomcat-9.0.54>cd bin
D:\apache tomcat\apache-tomcat-9.0.54-windows-x64\apache-tomcat-9.0.54\bin>startup.bat
Using CATALINA_BASE: "D:\apache tomcat\apache-tomcat-9.0.54-windows-x64\apache-tomcat-9.0.54"
Using CATALINA_HOME: "D:\apache tomcat\apache-tomcat-9.0.54-windows-x64\apache-tomcat-9.0.54"
Using CATALINA_TMPDIR: "D:\apache tomcat\apache-tomcat-9.0.54-windows-x64\apache-tomcat-9.0.54\temp"
Using JRE_HOME: "C:\Program Files\Java\jdk1.8.0_221"
Using CLASSPATH: "D:\apache tomcat\apache-tomcat-9.0.54-windows-x64\apache-tomcat-9.0.54\bin\bootstrap.jar;D:\apache tomcat\apache-tomcat-9.0.54-windows-x64\apache-tomcat-9.0.54\bin\tomcat-juli.jar"
Using CATALINA_OPTS: ""
D:\apache tomcat\apache-tomcat-9.0.54-windows-x64\apache-tomcat-9.0.54\bin>
```



```
, Random [true], UDS [true].
16-Oct-2021 16:31:40.689 INFO [main] org.apache.catalina.core.AprLifecycleListener.lifecycleEvent APR/OpenSSL configuration: useAprConnector [false], useOpenSSL [true]
16-Oct-2021 16:31:40.689 INFO [main] org.apache.catalina.core.AprLifecycleListener.initializeSSL OpenSSL successfully initialized [OpenSSL 1.1.1l 24 Aug 2021]
16-Oct-2021 16:31:40.985 INFO [main] org.apache.coyote.AbstractProtocol.init Initializing ProtocolHandler ["http-nio-8080"]
16-Oct-2021 16:31:41.017 INFO [main] org.apache.catalina.startup.Catalina.load Server initialization in [483] milliseconds
16-Oct-2021 16:31:41.048 INFO [main] org.apache.catalina.core.StandardService.startInternal Starting service [Catalina]
16-Oct-2021 16:31:41.048 INFO [main] org.apache.catalina.core.StandardEngine.startInternal Starting Servlet engine: [Apache Tomcat/9.0.54]
16-Oct-2021 16:31:41.079 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [D:\apache\tomcat\apache-tomcat-9.0.54-w
indows-x64\apache-tomcat-9.0.54\webapps\docs]
16-Oct-2021 16:31:41.079 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [D:\apache\tomcat\apache-tomcat-9.0.
54-windows-x64\apache-tomcat-9.0.54\webapps\docs] has finished in [250] ms
16-Oct-2021 16:31:41.329 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [D:\apache\tomcat\apache-tomcat-9.0.54-w
indows-x64\apache-tomcat-9.0.54\webapps\examples]
16-Oct-2021 16:31:41.329 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [D:\apache\tomcat\apache-tomcat-9.0.
54-windows-x64\apache-tomcat-9.0.54\webapps\examples] has finished in [250] ms
16-Oct-2021 16:31:41.329 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [D:\apache\tomcat\apache-tomcat-9.0.
54-windows-x64\apache-tomcat-9.0.54\webapps\host-manager]
16-Oct-2021 16:31:41.329 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [D:\apache\tomcat\apache-tomcat-9.0.
54-windows-x64\apache-tomcat-9.0.54\webapps\host-manager] has finished in [31] ms
16-Oct-2021 16:31:41.610 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [D:\apache\tomcat\apache-tomcat-9.0.54-w
indows-x64\apache-tomcat-9.0.54\webapps\manager]
16-Oct-2021 16:31:41.579 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [D:\apache\tomcat\apache-tomcat-9.0.
54-windows-x64\apache-tomcat-9.0.54\webapps\manager] has finished in [32] ms
16-Oct-2021 16:31:41.642 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [D:\apache\tomcat\apache-tomcat-9.0.54-w
indows-x64\apache-tomcat-9.0.54\webapps\ROOT]
16-Oct-2021 16:31:41.642 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [D:\apache\tomcat\apache-tomcat-9.0.54-w
indows-x64\apache-tomcat-9.0.54\webapps\ROOT] has finished in [15] ms
16-Oct-2021 16:31:41.657 INFO [main] org.apache.coyote.AbstractProtocol.start Starting ProtocolHandler ["http-nio-8080"]
16-Oct-2021 16:31:41.673 INFO [main] org.apache.catalina.startup.Catalina.start Server startup in [658] milliseconds
```

Step 6: Test the Apache Tomcat installation with the web browser



If you're seeing this, you've successfully installed Tomcat. Congratulations!

Recommended Reading:

- [Security Considerations How-To](#)
- [Manager Application How-To](#)
- [Clustering/Session Replication How-To](#)

Developer Quick Start

- [Tomcat Setup](#)
- [First Web Application](#)
- [Realms & AAA](#)
- [JDBC Data Sources](#)
- [Examples](#)
- [Servlet Specifications](#)
- [Tomcat Versions](#)

Managing Tomcat

For security, access to the [manager webapp](#) is restricted. Users are defined in: [\\$CATALINA_HOME/conf/tomcat-users.xml](#)

In Tomcat 9.0 access to the manager application is split between different users. [Read more...](#)

[Release Notes](#)

[Changelog](#)

[Migration Guide](#)

Documentation

- [Tomcat 9.0 Documentation](#)
- [Tomcat 9.0 Configuration](#)
- [Tomcat Wiki](#)

Find additional important configuration information in: [\\$CATALINA_HOME/ RUNNING.txt](#)

Developers may be interested in: [Tomcat 9.0 Bug Database](#)

Getting Help

FAQ and Mailing Lists

The following mailing lists are available:

- [tomcat-announce](#) Important announcements, releases, security vulnerability notifications. (Low volume).
- [tomcat-users](#) User support and discussion
- [taglibs-user](#) User support and discussion for [Apache Taglibs](#)
- [tomcat-dev](#) Development mailing list, including commit

RESULT:

Thus, the Apache Tomcat server installation is successful.

EX.NO:7(A)	GENERATION OF STUDENT MARK SHEET USING JAVA SERVLET
16/10/2021	

PROBLEM STATEMENT:

Write a servlet program that invokes from html document. The html documents get students register number, name, marks of three subjects. Calculate the total and average using servlets and declare the students result. The result must be declared pass if he/she secures than 50% in each subject.

AIM:

To write a java servlet program to create a web application for result analysis.

PROCEDURE:

- Create a folder in webapps.
- Create a WEB-INF folder and index.html file on the previously created folder.
- Create classes and web.xml file on the WEB-INF folder.
- On classes for create java files which handles the session and display data.

PROGRAM:

(i) index.html

```
<!DOCTYPE html>
<html>
<head>
<title>ResultAnalysis</title>
<link rel="stylesheet" href=".//styles/style.css" />
</head>
<body>
<div class="wrapper">
<h1>Result Analysis</h1>
<form class="form-box" autocomplete="off" action="confirm">
<label for="name">Name:</label>
<input type="text" name="name" />
```

```
<label for="reg">Reg. no:</label>
<input type="text" name="reg" />
<label for="math">Maths:</label>
<input type="number" name="math" placeholder="out of 100" />
<label for="phy">Physics:</label>
<input type="number" name="phy" placeholder="out of 100" />
<label for="chem">Chemistry:</label>
<input type="number" name="chem" placeholder="out of 100" />
<input class="btn" type="submit" value="confirm" />
</form>
</div>
</body>
</html>
```

(ii) style.css:

```
body {
    background-color: #eee;
    font-family: sans-serif;
    height: 100%;
    overflow: hidden;
}
.wrapper {
    padding: 5px 40px;
    text-align: center;
    margin: 40px auto;
    max-width: 300px;
    background-color: white;
    border: 1px solid black;
    border-radius: 15px;
}
.form-box {
    display: flex;
    flex-direction: column;
}
.form-box label {
    text-align: left;
    padding-top: 10px;
    padding-bottom: 5px;
}
.form-box input {
```

```
padding: 10px;  
border-radius: 5px;  
}  
.btn {  
display: block;  
margin: 30px auto;  
width: 150px;  
font-size: medium;  
}  
(iii) web.xml:  
<web-app>  
    <servlet>  
        <servlet-name>page1</servlet-name>  
        <servlet-class>CreateSession</servlet-class>  
    </servlet>  
    <servlet>  
        <servlet-name>page2</servlet-name>  
        <servlet-class>DisplayData</servlet-class>  
    </servlet>  
    <servlet-mapping>  
        <servlet-name>page1</servlet-name>  
        <url-pattern>/confirm</url-pattern>  
    </servlet-mapping>  
    <servlet-mapping>  
        <servlet-name>page2</servlet-name>  
        <url-pattern>/result</url-pattern>  
    </servlet-mapping>  
</web-app>
```

(iv) CreateSession.java:

```
import java.io.IOException;  
import java.io.PrintWriter;  
import javax.servlet.*;  
import javax.servlet.http.*;  
public class CreateSession extends HttpServlet {  
    public void doGet(HttpServletRequest req, HttpServletResponse res)  
throws ServletException, IOException {  
    res.setContentType("text/html");  
    PrintWriter out = res.getWriter();  
    String name = req.getParameter("name");  
    String reg = req.getParameter("reg");
```

```
String math = req.getParameter("math");
String phy = req.getParameter("phy");
String chem = req.getParameter("chem");
HttpSession session = req.getSession();
session.setAttribute("name", name);
session.setAttribute("reg", reg);
session.setAttribute("math", math);
session.setAttribute("phy", phy);
session.setAttribute("chem", chem);
out.println("<html>");
out.println("<head>");
out.println("<title>Data received</title>");
out.println(
    "<style>body{font-family: sans-serif;}.wrapper{display:flex;flex-direction:column;}h1{text-align:center;}a{text-decoration:none;color:black;}.btn{display: block;padding:10px; margin: 10px auto; width:150px;border:1px solid black;background-color:#eee;text-align:center;}</style>");
out.println("</head>");
out.println("<body>");
out.println("<div class='wrapper'><h1>Click the below button to get analysis!!!</h1>");
out.println("<div class='btn'><a href='result'>Get Analysis</a></div>");
out.println("</div></body>");
out.println("</html>");
out.close();
}}
```

(iv) GenerateRoll.java:

```
import javax.servlet.*;
import javax.servlet.http.*;
import java.io.*;
import java.util.*;
public class DisplayData extends HttpServlet{
    public void doGet(HttpServletRequest req, HttpServletResponse res)
        throws ServletException, IOException{
        String result;
        res.setContentType("text/html");
        PrintWriter out = res.getWriter();
        HttpSession session = req.getSession(false);
```

```
String name=(String)session.getAttribute("name");
String reg=(String)session.getAttribute("reg");
String math=(String)session.getAttribute("math");
String phy=(String)session.getAttribute("phy");
String chem=(String)session.getAttribute("chem");
int im=Integer.parseInt(math);
int ip=Integer.parseInt(phy);
int ic=Integer.parseInt(chem);
int total=im+ip+ic;
float avg;
avg=(float)total/3;
if(im>50 && ip>50 && ic>50){
    result="Pass";
}
else{
    result="Fail";
}
out.println("<html>");
out.println("<head>");
out.println("<title>Analysis</title>");
out.println("<style>body{font-family: sans-serif;background-color:#eee;}.wrapper{padding: 20px;margin:40px auto;width:300px;background-color: white;border:1px solid black;}table{margin:0 auto;width:250px;}h1{text-align:center;}tr{border:1px solid black;}td{padding:10px;border:1px solid black;text-align:center;}th{padding:10px;border:1px solid black;text-align:left;}</style>");
out.println("</head>");
out.println("<body>");
out.println("<div class='wrapper'><h1>Analysis</h1>");
out.println("<table>");
out.println("<tr><th>Name</th><td>"+name+"</td></tr>");
out.println("<tr><th>Reg.no.</th><td>"+reg+"</td></tr>");
out.println("<tr><th>Math</th><td>"+math+"</td></tr>");
out.println("<tr><th>Physics</th><td>"+phy+"</td></tr>");
out.println("<tr><th>Chemistry</th><td>"+chem+"</td></tr>");
out.println("<tr><th>Total</th><td>"+total+"/300</td></tr>");
out.println("<tr><th>Average</th><td>"+avg+"</td></tr>");
if(result.equals("Pass")){
    out.println("<tr><th>Result</th><td style='color:green;'>"+result+"</td></tr>");
```

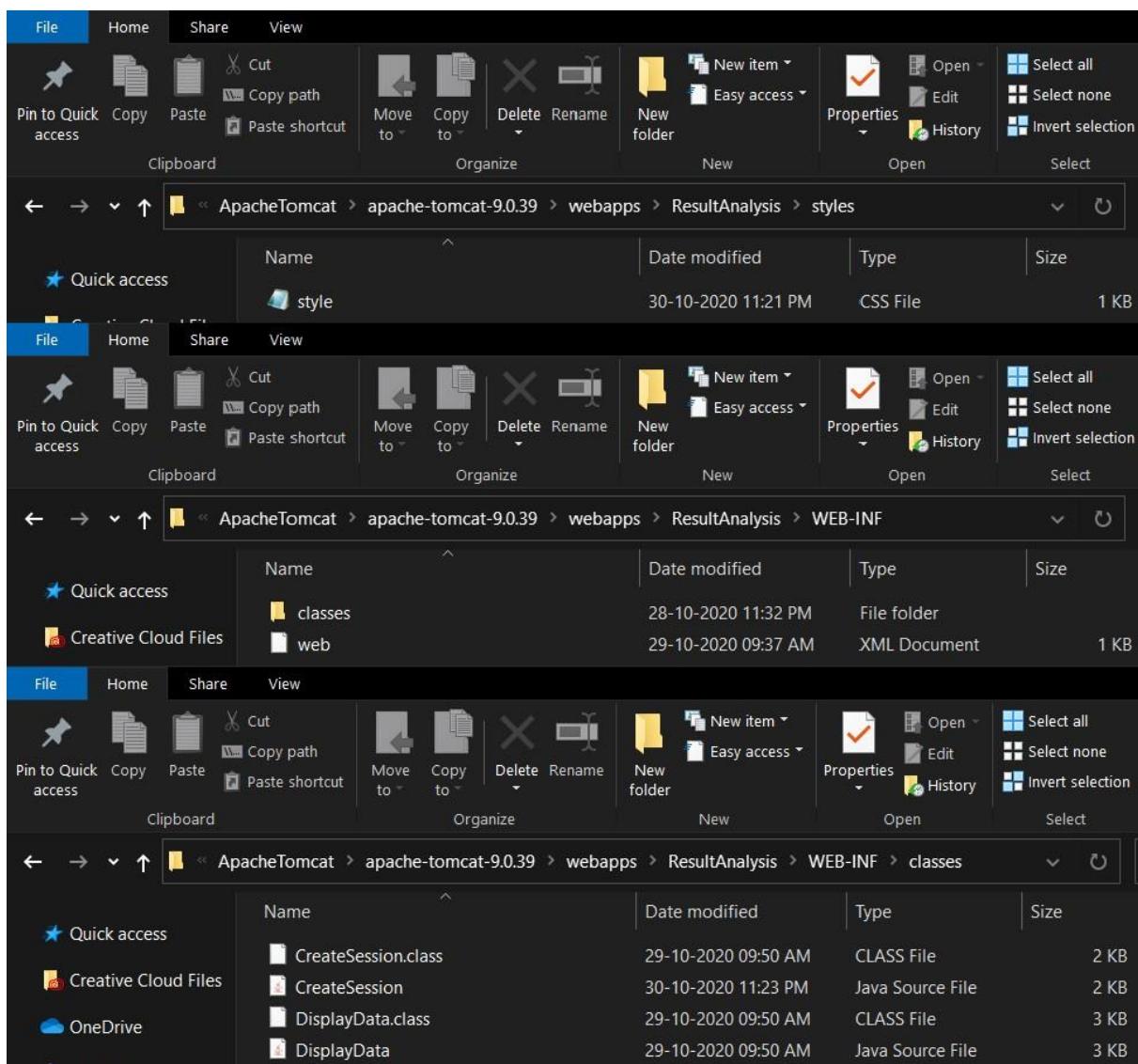
```
        }
    else{
        out.println("<tr><th>Result</th><td>" + result + "</td></tr>");
    }
    out.println("</table>");
    out.println("</div></body>");
    out.println("</html>");
}
}
```

OUTPUT:

Folder structure:

Name	Date modified	Type
docs	06-10-2020 03:14 PM	File folder
examples	06-10-2020 03:14 PM	File folder
FirstServlet	28-10-2020 11:50 AM	File folder
host-manager	06-10-2020 03:14 PM	File folder
manager	06-10-2020 03:14 PM	File folder
PayRoll	31-10-2020 12:12 AM	File folder
ResultAnalysis	31-10-2020 12:20 AM	File folder
ROOT	05-11-2020 11:21 PM	File folder

Name	Date modified	Type	Size
styles	31-10-2020 12:20 AM	File folder	
WEB-INF	28-10-2020 10:28 PM	File folder	
index	31-10-2020 12:22 AM	Chrome HTML Do...	1 KB



Browser workflow:



Result Analysis

Name:

Reg. no:

Maths: out of 100

Physics: out of 100

Chemistry: out of 100

Result Analysis

Name: Deekshana A

Reg. no: 311519205012

Maths: 95

Physics: 93

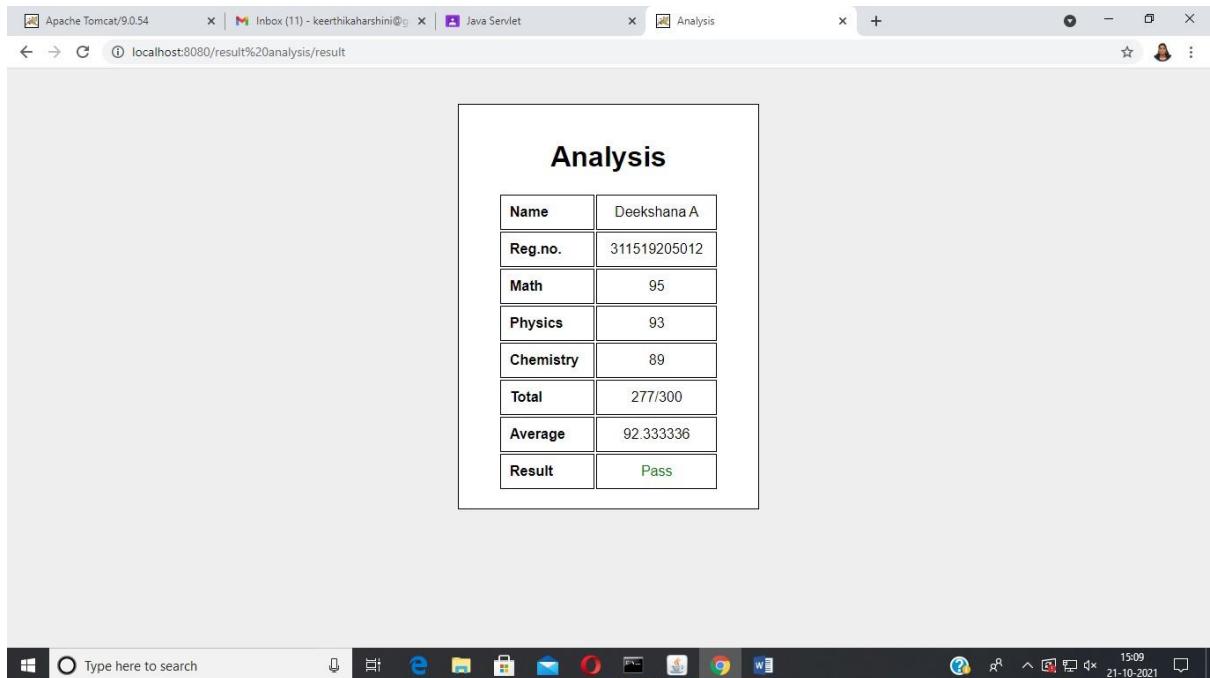
Chemistry: 89

confirm



Click the below button to get analysis!!!

Get Analysis



RESULT:

Thus the generation of student mark sheet using JAVA servlet is implemented successfully.

EX.NO:7(B)	DEVELOPING A PAYROLL PROCESSING SYSTEM USING JAVA SERVLETS
21/10/2021	

PROBLEM STATEMENT:

Develop a web application for payroll processing using java servlets. (Use Session) Read all the employee information using web document and display in a tabular representation using servlets.

AIM:

To write a java servlet program to create a web application for payroll processing.

PROCEDURE:

- Create a folder in webapps.
- Create a WEB-INF folder and index.html file on the previously created folder.
- Create classes and web.xml file on the WEB-INF folder.
- On classes for create java files which handles the session and display data.

PROGRAM:

(i) index.html

```
<!DOCTYPE html>
<html>
<head>
<title>PayRoll</title>
<link rel="stylesheet" href=".//styles/style.css" />
</head>
<body>
<div class="wrapper">
<form class="form-box" autocomplete="off" action="confirm">
<h1>PayRoll</h1>
```

```
<label for="name">Employee Name:</label>
<input type="text" name="name" />
<label for="emp_no">Employee no.:</label>
<input type="text" name="emp_no" />
<label for="dp">Daily pay:</label>
<input type="text" name="dp" />
<label for="wd">Working days</label>
<input type="text" name="wd" />
<label for="pf">PF:</label>
<input type="text" name="pf" />
<label for="leave">No. of Leave:</label>
<input type="text" name="leave" />
<input class="btn" type="submit" value="confirm" />
</form>
</div>
</body>
</html>
```

(ii) style.css:

```
body {
background-color: #eee;
font-family: sans-serif;
height: 100%;
overflow: hidden;
}
.wrapper {
padding: 5px 40px;
text-align: center;
margin: 40px auto;
max-width: 300px;
background-color: white;
border: 1px solid black;
border-radius: 15px;
}
.form-box {
display: flex;
flex-direction: column;
}
.form-box label {
```

text-align: left;

```
padding-top: 10px;  
padding-bottom: 5px;  
}  
.form-box input {  
padding: 10px;  
border-radius: 5px;  
}  
.btn {  
display: block;  
margin: 30px auto;  
width: 150px;  
font-size: medium;  
}  
a {  
text-decoration: none;  
color: black;  
}
```

(iii) web.xml:

```
<web-app>  
    <servlet>  
        <servlet-name>Page1</servlet-name>  
        <servlet-class>CreateSession</servlet-class>  
    </servlet>  
    <servlet>  
        <servlet-name>Page2</servlet-name>  
        <servlet-class>GenerateRoll</servlet-class>  
    </servlet>  
    <servlet-mapping>  
        <servlet-name>Page1</servlet-name>  
        <url-pattern>/confirm</url-pattern>  
    </servlet-mapping>  
    <servlet-mapping>  
        <servlet-name>Page2</servlet-name>  
        <url-pattern>/generateroll</url-pattern>  
    </servlet-mapping>  
</web-app>
```

(iv) CreateSession.java:

```
import java.io.IOException;
```

```
import java.io.PrintWriter;
import javax.servlet.*;
import javax.servlet.http.*;
public class CreateSession extends HttpServlet {
    public void doGet(HttpServletRequest req, HttpServletResponse res)
throws ServletException, IOException {
        res.setContentType("text/html");
        PrintWriter out = res.getWriter();
        String name = req.getParameter("name");
        String eno = req.getParameter("emp_no");
        String dp = req.getParameter("dp");
        String wd = req.getParameter("wd");
        String pf = req.getParameter("pf");
        String l = req.getParameter("leave");
        HttpSession session = req.getSession();
        session.setAttribute("name", name);
        session.setAttribute("eno", eno);
        session.setAttribute("dp", dp);
        session.setAttribute("wd", wd);
        session.setAttribute("pf", pf);
        session.setAttribute("l", l);
        out.println("<html>");
        out.println("<head>");
        out.println("<title>Data received</title>");
        out.println("<link rel='stylesheet' type='text/css' href='" +
req.getContextPath() + "/styles/style.css' />");
        out.println("</head>");
        out.println("<body>");
        out.println("<div class='wrapper'><h1>Click the below link to
generate PaySlip!!!</h1>");
        out.println("<button class='btn'><a href='generateroll'>Get
Payroll</a></button>");
        out.println("</div></body>");
        out.println("</html>");
        out.close();}}
```

(iv) GenerateRoll.java:

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

```
import java.util.*;
public class GenerateRoll extends HttpServlet {
    public void doGet(HttpServletRequest req, HttpServletResponse res) throws
ServletException, IOException {
        res.setContentType("text/html");
        PrintWriter out = res.getWriter();
        HttpSession session = req.getSession(false);
        String name = (String) session.getAttribute("name");
        String eno = (String) session.getAttribute("eno");
        String dp = (String) session.getAttribute("dp");
        String wd = (String) session.getAttribute("wd");
        String pf = (String) session.getAttribute("pf");
        String l = (String) session.getAttribute("l");
        int dpi = Integer.parseInt(dp);
        int wdi = Integer.parseInt(wd);
        int pfi = Integer.parseInt(pf);
        int li = Integer.parseInt(l);
        int deduction = ((dpi * li) + pfi);
        int salary = (dpi * (wdi + li));
        int cs = salary - deduction;
        out.println("<html>");
        out.println("<head>");
        out.println("<title>PayRoll</title>");
        out.println(
            "<style>body{font-family: sans-serif;background-
color:#eee;}.wrapper{border-radius:10px;padding: 20px;margin:40px
auto;width:300px;background-color: white;border:1px solid
black;}table{margin:0 auto;width:250px;}h1{text-align:center;}tr{border:1px
solid black;}td{padding:10px;border:1px solid black;text-
align:center;}th{padding:10px;border:1px solid black;text-align:left;}</style>");
        out.println("</head>");
        out.println("<body>");
        out.println("<div class='wrapper'><h1>Pay Slip</h1>");
        out.println("<table>");
        out.println("<tr><th> Emp Name</th><td>" + name + "</td></tr>");
        out.println("<tr><th>Emp.no</th><td>" + eno + "</td></tr>");
        out.println("<tr><th>Salary:</th><td> Rs." + salary + "</td></tr>");
        out.println("<tr><th>Deduction:</th><td> Rs." + deduction +
"</td></tr>");
        out.println("<tr><th>Total amount:</th><td> Rs." + cs + "</td></tr>");
```

```
out.println("</table>");  
out.println("</div></body>");  
out.println("</html>");}}
```

OUTPUT:

Folder structure:

The image consists of three vertically stacked screenshots of the Windows File Explorer interface, showing the file structure of a web application in Apache Tomcat.

Screenshot 1: Main Application Structure

This screenshot shows the root directory of the application:

Name	Date modified	Type
docs	06-10-2020 03:14 PM	File folder
examples	06-10-2020 03:14 PM	File folder
FirstServlet	28-10-2020 11:50 AM	File folder
host-manager	06-10-2020 03:14 PM	File folder
manager	06-10-2020 03:14 PM	File folder
PayRoll	31-10-2020 12:12 AM	File folder
ResultAnalysis	31-10-2020 12:20 AM	File folder
ROOT	05-11-2020 11:21 PM	File folder

Screenshot 2: PayRoll Directory

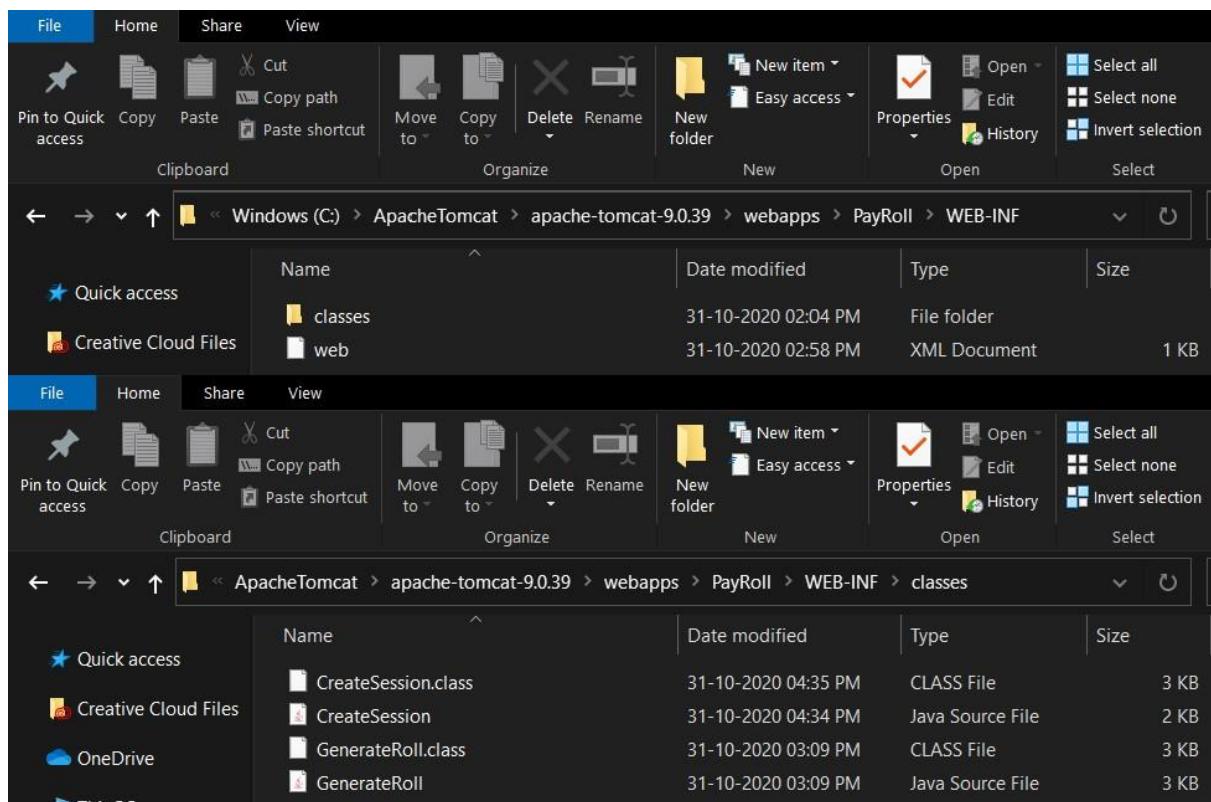
This screenshot shows the contents of the PayRoll directory:

Name	Date modified	Type	Size
index	31-10-2020 02:37 PM	Chrome HTML Do...	1 KB
WEB-INF	30-10-2020 10:06 PM	File folder	
styles	30-10-2020 11:21 PM	File folder	

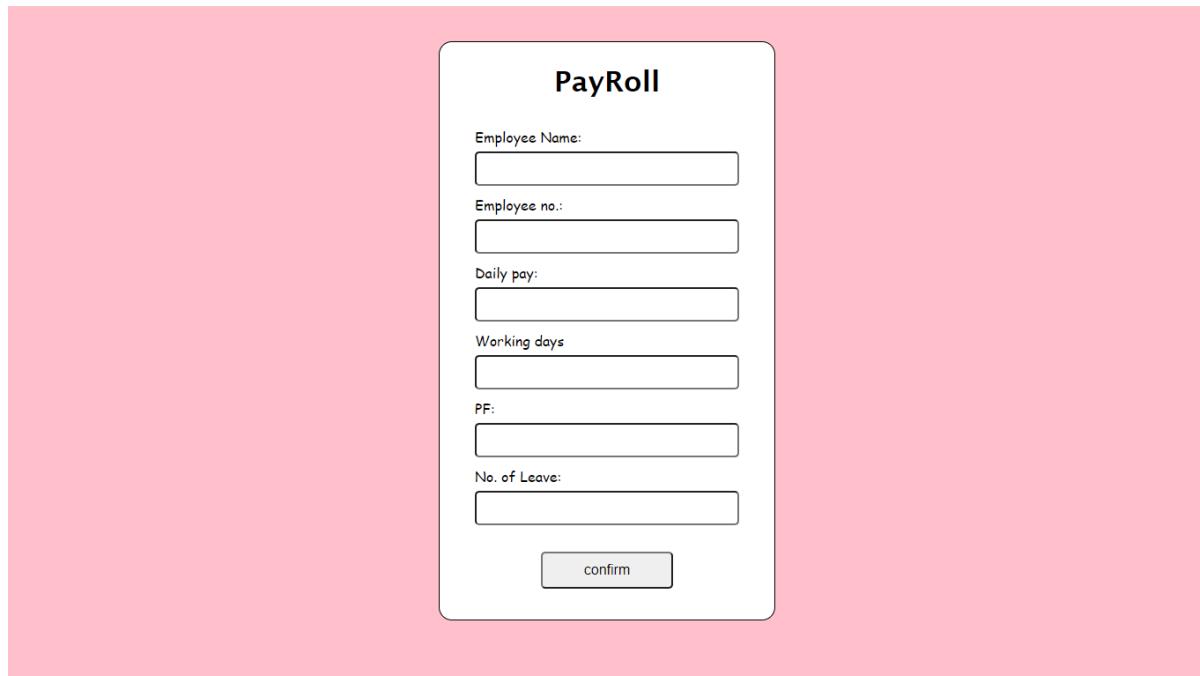
Screenshot 3: styles Subdirectory

This screenshot shows the contents of the styles directory:

Name	Date modified	Type	Size
style	31-10-2020 04:31 PM	CSS File	1 KB



Browser workflow:



Apache Tomcat/9.0.54 PayRoll

localhost:8080/PayRoll/

PayRoll

Employee Name: Deekshana V

Employee no.: 5012

Daily pay: 29000

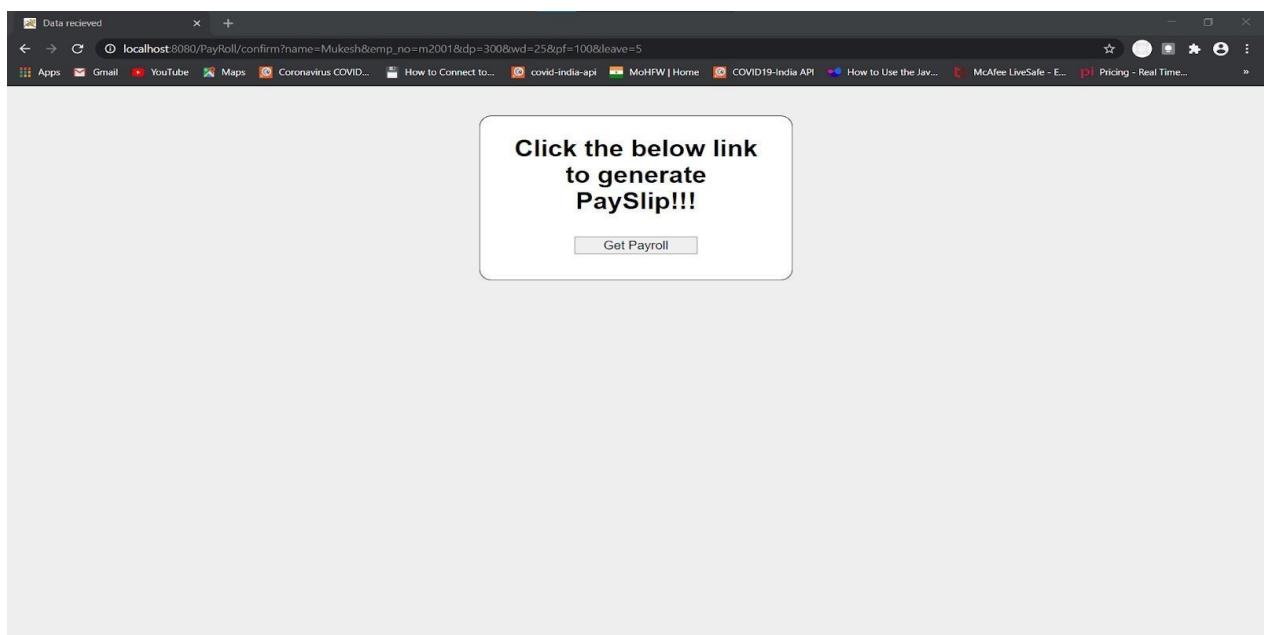
Working days: 24

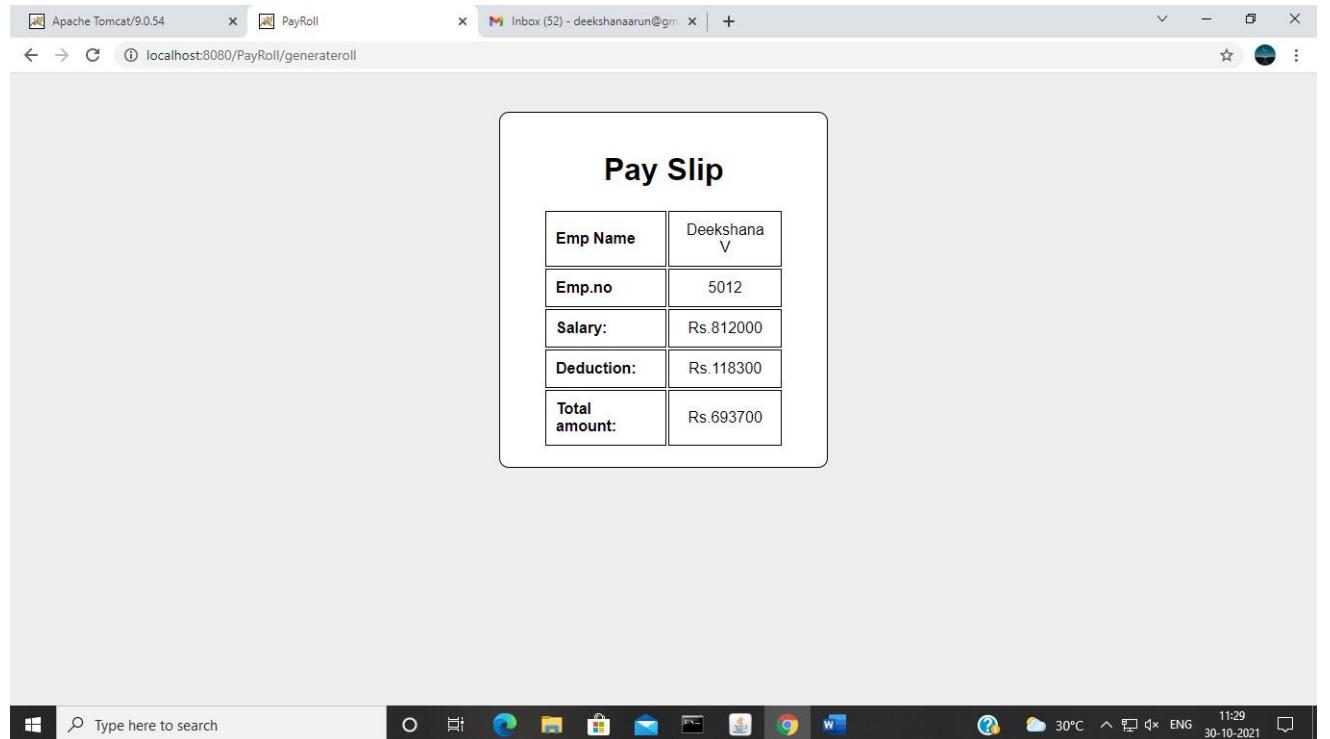
PF: 2300

No. of Leave: 4

Type here to search

11:27 30-10-2021





RESULT:

Thus, java servlet program to create a web application for payroll were executed successfully.

EX.NO:8	IMPLEMENTATION OF DOM PARSER
23/10/2021	

PROBLEM STATEMENT:

Create an XML for student info system and parse it using DOM Parser.

AIM:

To create an XML document and parse it using DOM Parser.

PROCEDURE:

- Create an XML file with the details of the students on it.
- Name the file as data.txt
- Create a java file which uses the dom package.
- Now print those data from the data file.

PROGRAM:

(i) data.txt:

```
<?xml version = "1.0"?>
<class>
    <student rollno = "5029">
        <firstname>keerthika</firstname>
        <lastname>R</lastname>
        <nickname>keerthu</nickname>
        <marks>100</marks>
    </student>
    <student rollno = "5012">
        <firstname>deekshana</firstname>
        <lastname>A</lastname>
        <nickname>deeks</nickname>
        <marks>100</marks>
    </student>
    <student rollno = "5025">
        <firstname>ilavarasi</firstname>
```

```
<lastname>V</lastname>
<nickname>ila</nickname>
<marks>100</marks>
</student>
</class>
```

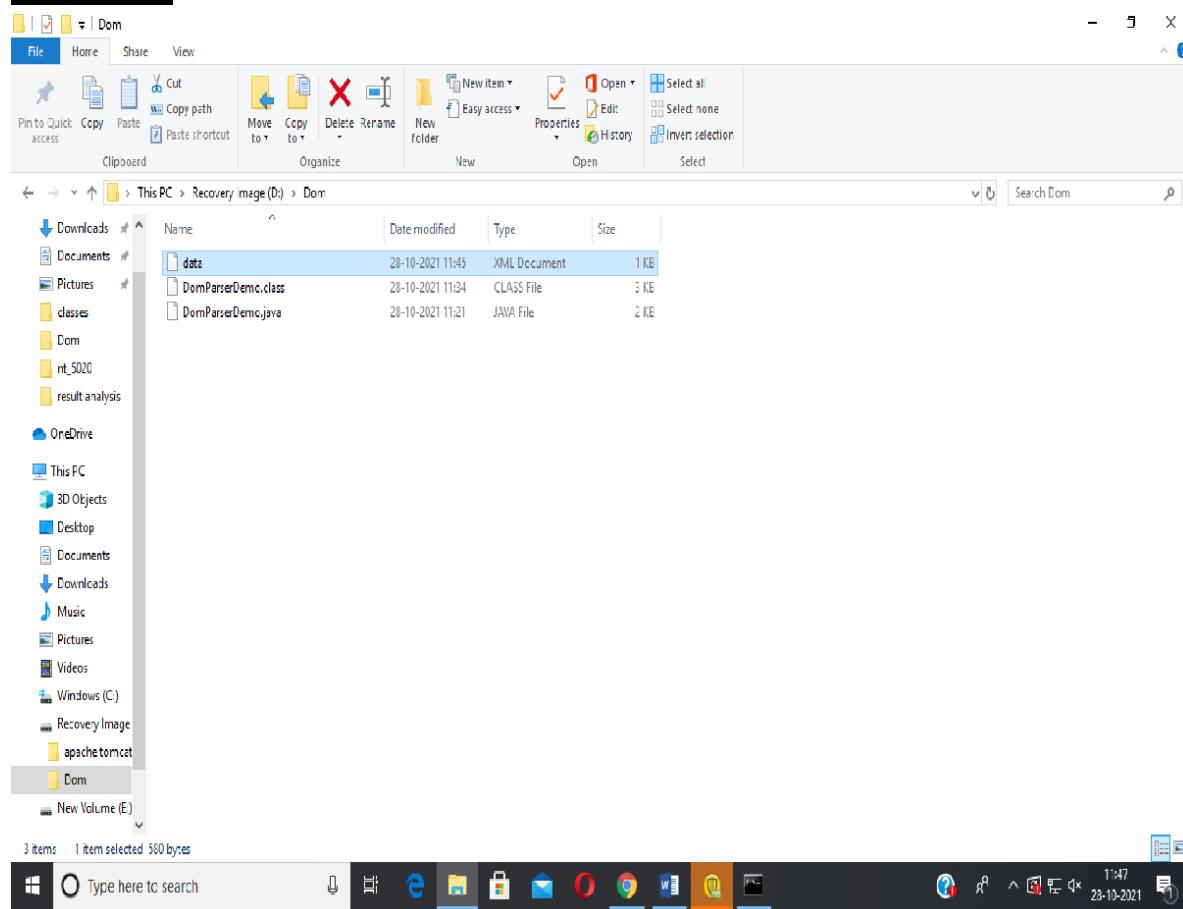
(ii) DomParserDemo.java:

```
import java.io.File;
import javax.xml.parsers.DocumentBuilderFactory;
import javax.xml.parsers.DocumentBuilder;
import org.w3c.dom.Document;
import org.w3c.dom.NodeList;
import org.w3c.dom.Node;
import org.w3c.dom.Element;
public class DomParserDemo {
    public static void main(String[] args) {
        try {
            File inputFile = new File("data.txt");
            DocumentBuilderFactory dbFactory =
DocumentBuilderFactory.newInstance();
            DocumentBuilder dBuilder = dbFactory.newDocumentBuilder();
            Document doc = dBuilder.parse(inputFile);
            doc.getDocumentElement().normalize();
            System.out.println("Root element :" +
doc.getDocumentElement().getnodeName());
            NodeList nList = doc.getElementsByTagName("student");
            System.out.println(" -----");
            for (int temp = 0; temp < nList.getLength(); temp++) {
                Node nNode = nList.item(temp);
                System.out.println("\nCurrent Element :" + nNode.getNodeName());

                if (nNode.getNodeType() == Node.ELEMENT_NODE) {
                    Element eElement = (Element) nNode;
                    System.out.println("Student roll no : " +
eElement.getAttribute("rollno"));
                    System.out.println(
                        "First Name : " +
eElement.getElementsByTagName("firstname").item(0).getTextContent());
                    System.out.println(
```

```
"Last Name : " +  
eElement.getElementsByTagName("lastname").item(0).getTextContent());  
System.out.println(  
    "Nick Name : " +  
eElement.getElementsByTagName("nickname").item(0).getTextContent());  
System.out.println("Marks : " +  
eElement.getElementsByTagName("marks").item(0).getTextContent());  
}  
}  
}  
}  
}  
}  
}  
}  
}  
}  
}  
}  
}
```

OUTPUT:



```
c:\Administrator: Command Prompt
Microsoft Windows [Version 10.0.17134.376]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>d:

D:\>cd Dom

D:\Dom>java DomParserDemo
Root element :class
-----
Current Element :student
Student roll no : 5032
First Name : Keerthika
Last Name : Ravichandran
Nick Name : keerthu
Marks : 100

Current Element :student
Student roll no : 5012
First Name : Deekshana
Last Name : A
Nick Name : deeks
Marks : 100

Current Element :student
Student roll no : 5025
First Name : Ilavarasi
Last Name : D
Nick Name : Ila
Marks : 100

D:\Dom>
```

RESULT:

Thus, the programs an XML for student info system and parse it using DOM Parser were executed successfully.

EX.NO:9	
21/10/2021	IMPLEMENTATION OF SAX PARSER

PROBLEM STATEMENT:

Create an xml document for employee management containing employee details namely, employee name, employee id, type of job and age. Navigate the document using SAX Parser.

AIM:

To create an xml document for employee management containing employee details namely, employee name, employee id, type of job and age. Navigate the document using SAX Parser.

PROCEDURE:

1. Create a Sax parser and parse the xml
2. Create parse document and print document methods
3. Create SAXParserFactory object to create the sax parser using the predefined method SAXParser()
4. Using the SAXparser object we parse the already created xml file
5. printData is used to print the total employees present in the xml file
6. then from startelement and element the parsing will done
7. In the event handler create the employee object
8. Print out the data

SAXParserExample.java

```
import java.io.IOException;  
  
import java.util.ArrayList;  
  
import java.util.Iterator;  
  
import java.util.List;  
  
import javax.xml.parsers.ParserConfigurationException;  
  
import javax.xml.parsers.SAXParser;  
  
import javax.xml.parsers.SAXParserFactory;
```

```
import org.xml.sax.Attributes;
import org.xml.sax.SAXException;
import org.xml.sax.helpers.DefaultHandler;
public class SAXParserExample extends DefaultHandler {
List myEmpls;
private String tempVal;
private Employee tempEmp;
public SAXParserExample() {
myEmpls = new ArrayList();
} public void runExample() {
parseDocument();
printData();
}
private void parseDocument() {
SAXParserFactory spf = SAXParserFactory.newInstance();
try {
SAXParser sp = spf.newSAXParser();
sp.parse("employees.xml", this);
} catch (SAXException se) {
se.printStackTrace();
} catch (ParserConfigurationException pce) {
pce.printStackTrace();
} catch (IOException ie) {
ie.printStackTrace();
}
} private void printData() {
System.out.println("No of Employees " + myEmpls.size() + ":");
Iterator it = myEmpls.iterator();
while (it.hasNext()) {
System.out.println(it.next().toString());
}
```

```
        }

    }

public void startElement(String uri, String localName, String qName, Attributes attributes)
throws SAXException {

    tempVal = "";

    if (qName.equalsIgnoreCase("Employee")) {

        tempEmp = new Employee(qName, 0, 0, qName);
        tempEmp.setType(attributes.getValue("type"));

    }

} public void characters(char[] ch, int start, int length) throws SAXException {

    tempVal = new String(ch, start, length);

}

public void endElement(String uri, String localName, String qName) throws SAXException
{

    if (qName.equalsIgnoreCase("Employee")) {

        myEmpls.add(tempEmp);

    } else if (qName.equalsIgnoreCase("Name")) {

        tempEmp.setName(tempVal);

    } else if (qName.equalsIgnoreCase("Id")) {

        tempEmp.setId(Integer.parseInt(tempVal));

    } else if (qName.equalsIgnoreCase("Age")) {

        tempEmp.setAge(Integer.parseInt(tempVal));

    }

} public static void main(String[] args) {

    SAXParserExample spe = new SAXParserExample();
    spe.runExample();

}

}
```

Employee.java

```
public class Employee
```

```
private String name;  
  
private int age; private  
int id; private String  
type;  
  
public Employee(String name, int id, int age, String type) {  
    this.name = name;  
    this.age = age;  
    this.id = id;  
    this.type = type;  
}  
public int getAge() {  
    return age;  
}  
public void setAge(int age) {  
    this.age = age;  
}  
public int getId() {  
    return id;  
}  
public void setId(int id) {  
    this.id = id;  
}  
public String getName() {  
    return name;  
}  
public void setName(String name) {  
    this.name = name;  
}  
public String getType() {  
    return type;  
}  
public void setType(String type) {  
    this.type = type;  
}  
public String toString() {  
    StringBuffer sb = new StringBuffer();  
    sb.append("Employee Details - ");
```

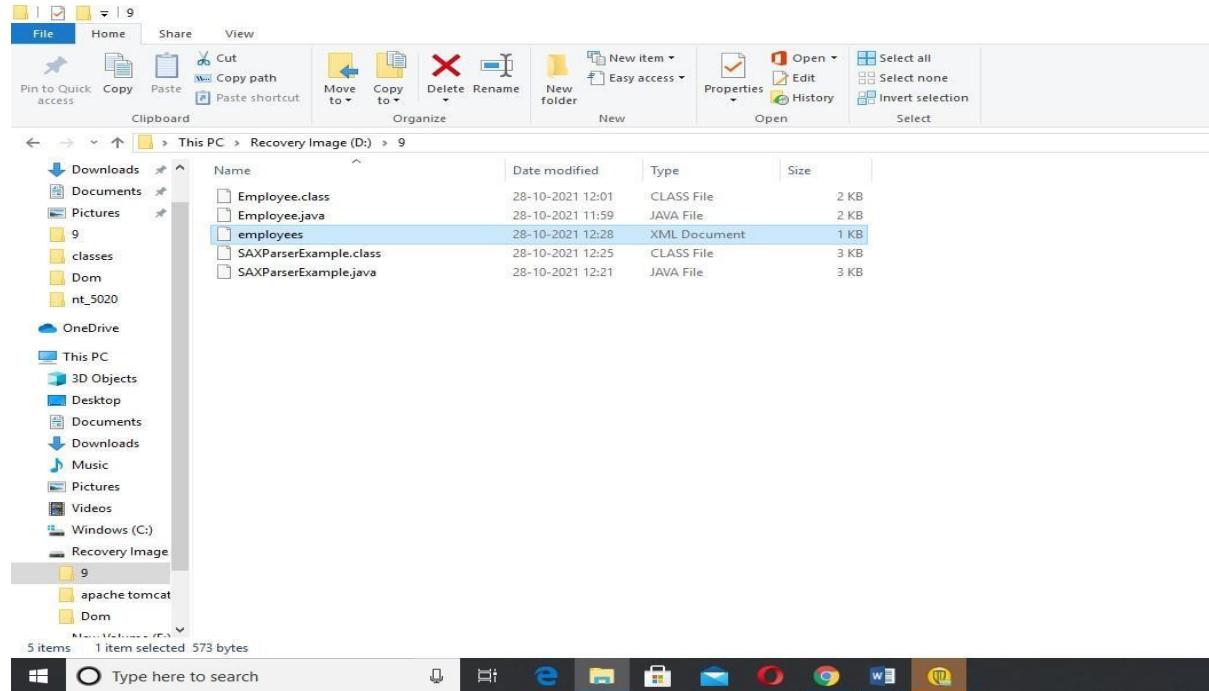
```
sb.append("Name:" + getName());  
sb.append(", ");  
sb.append("Type:" + getType());  
sb.append(", ");  
sb.append("Id:" + getId());  
sb.append(", ");  
sb.append("Age:" + getAge());  
sb.append(".");  
return sb.toString();  
}  
}
```

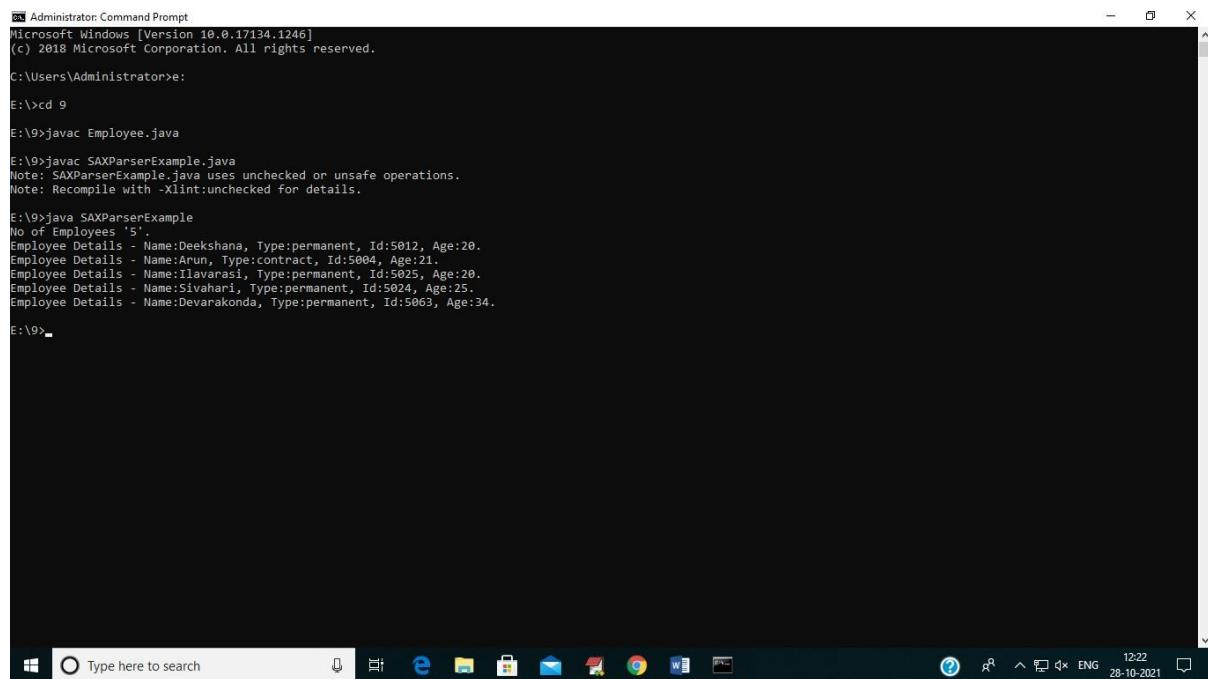
employees.xml

```
<?xml version="1.0" encoding="UTF-8" ?>  
<Personnel>  
<Employee type="permanent">  
  <Name>Magesh</Name>  
  <Id>5022</Id>  
  <Age>19</Age>  
</Employee>  
<Employee type="contract">  
  <Name>Arun</Name>  
  <Id>5004</Id>  
  <Age>19</Age>  
</Employee>  
<Employee type="permanent">  
  <Name>Ajay</Name>  
  <Id>5047</Id>  
  <Age>19</Age>
```

```
</Employee>  
<Employee type="permanent">  
    <Name>Karthi</Name>  
    <Id>5050</Id>  
    <Age>20</Age>  
</Employee>  
<Employee type="permanent">  
    <Name>Pavan</Name>  
    <Id>5059</Id>  
    <Age>20</Age>  
</Employee>  
</Personnel>
```

OUTPUT:





The screenshot shows a Windows Command Prompt window titled "Administrator: Command Prompt". The window displays the following command-line session:

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.17134.1246]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>e:
E:\>cd 9
E:\9>javac Employee.java
E:\9>javac SAXParserExample.java
Note: SAXParserExample.java uses unchecked or unsafe operations.
      Recompile with -Xlint:unchecked for details.

E:\9>java SAXParserExample
No of Employees: 5
Employee Details - Name:Deekshana, Type:permanent, Id:5012, Age:20.
Employee Details - Name:Arun, Type:contract, Id:5004, Age:21.
Employee Details - Name:Ilavarasi, Type:permanent, Id:5025, Age:20.
Employee Details - Name:Sivahari, Type:permanent, Id:5024, Age:25.
Employee Details - Name:Devarakonda, Type:permanent, Id:5063, Age:34.

E:\9>
```

The taskbar at the bottom of the screen shows various pinned icons and the system clock indicating 12:22 on 28-10-2021.

RESULT:

Thus the xml document for employee management containing employee details is implemented successfully.

Ex no: 10	DESIGNING A STUDENT DATABASE SYSTEM USING JAVA SERVER PAGES
18-11-2021	

PROBLEM STATEMENT:

Design a student database system

AIM:

PROCEDURE:

- Create a project student_datacenter on netbeans.
- Add the dependencies to the project.
- Create the files required.
- Start the mysql database on xampp.
- Now run the application.

PROGRAM:

(i) index.html:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Start Page</title>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <style>
      html{
        font-family: sans-serif;
        background-color: #eee;
      }
      div{
        margin: 0 auto;
        text-align: center;
```

```
        }
    ul{
        list-style: none;
        padding: 0;
        background-color: white;
        border:1px solid black;
        width: 300px;
        margin: 0 auto;
    }
    li{
        padding: 20px;
    }
    a{
        text-decoration: none;
        color: black;
    }
</style>
</head>
<body>
<center>
<div>
    <h1>Student Data Center</h1>
    <ul>
        <li><button><a href="select.jsp">View Data</a></button></li>
        <li><button><a href="insert_info.html">Insert
Data</a></button></li>
        <li><button><a href="delete_info.html">Delete
Data</a></button></li>
    </ul>
</div>
</center>
</body>
</html>
```

(ii) insert_info.html:

```
<!DOCTYPE html>
<html>
<head>
    <title>Insert info</title>
    <meta charset="UTF-8">
```

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<style>
    body{
        background-color: #eee;
        font-family: sans-serif;
    }
    div{
        margin: 20px auto;
        width: 30%;
        padding: 10px;
        border: 1px solid black;
        background-color: white;
        box-sizing: border-box;
    }
    form{
        display: flex;
        flex-direction: column;
    }
    label{
        padding-top:10px;
    }
    input{
        width: 400px;
        padding: 10px;
    }
    input[type="submit"]){
        margin: 10px auto;
        width: 200px;
    }
</style>
</head>
<body>
    <div>
        <center><h1>Insert Student Info</h1></center>
        <form autocomplete="off" method="GET" action="insert.jsp">
            <label>Name:</label>
            <input type="text" name="name"/>
            <label>Reg. no.:</label>
            <input type="text" name="reg"/>
        </form>
    </div>

```

```
<label>Age:</label>
<input type="text" name="age"/>
<label>Email:</label>
<input type="text" name="email"/>
<input type="submit" value="Insert data"/>
</form>
</div>
<center><a href="index.html"><button>Back</button></a></center>
</body>
</html>
```

(iii) delete_info.html:

```
<!DOCTYPE html>
<html>
<head>
    <title>Insert info</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
<style>
    body{
        background-color: #eee;
        font-family: sans-serif;
    }
    div{
        margin: 20px auto;
        width: 30%;
        padding: 10px;
        border: 1px solid black;
        background-color: white;
        box-sizing: border-box;
    }
    form{
        display: flex;
        flex-direction: column;
    }
    label{
        padding-top:10px;
    }
    input{
        width: 400px;
```

```
        padding: 10px;
    }
    input[type="submit"]){
        margin: 10px auto;
        width: 200px;
    }
</style>
</head>
<body>
<div>
    <center><h1>Delete Student Info</h1></center>
    <form autocomplete="off" method="GET" action="delete.jsp">
        <label>Reg. no.:</label>
        <input type="text" name="reg"/>
        <input type="submit" value="Delete data"/>
    </form>
</div>
<center><a href="index.html"><button>Back</button></a></center>
</body>
</html>
```

(iv) select.jsp:

```
<%@ page import = "java.io.* ,java.util.* ,java.sql.*" %>
<%@ page import = "javax.servlet.http.* ,javax.servlet.*" %>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix = "c" %>
<%@ taglib uri="http://java.sun.com/jsp/jstl/sql" prefix = "sql" %>
<html>
<head>
<title>SELECT Operation</title>
<style>
body{
    background-color: #eee;
    font-family: sans-serif;
}
table{
    background-color: white;
    margin: 80px;
    border-collapse: collapse;
    border: 1px solid black;
    width: 50%;
```

```
        }
    th,td{
        border: 1px solid black;
        padding: 5px;
    }
</style>
</head>
<body>
<sql:setDataSource var = "snapshot" driver = "com.mysql.jdbc.Driver"
url="jdbc:mysql://localhost/TEST?useUnicode=true&useJDBCCompliantTimezo
neShift=true&useLegacyDatetimeCode=false&serverTimezone=UTC"
user = "root" password = ""/>
<sql:query dataSource = "${snapshot}" var = "result">
SELECT * from Students;
</sql:query>
<center>
    <h1>Students Data</h1>
<table>
<tr>
<th>Reg No</th>
<th>Name</th>
<th>Age</th>
<th>Email</th>
</tr>
<c:forEach var = "row" items = "${result.rows}">
<tr>
<td><c:out value = "${row.regno}" /></td>
<td><c:out value = "${row.name}" /></td>
<td><c:out value = "${row.age}" /></td>
<td><c:out value = "${row.email}" /></td>
</c:forEach>
</table>
    <a href="index.html"><button>Back</button></a>
</center>
</body>
</html>
```

(v) insert.jsp:

```
<%@ page import = "java.io.* , java.util.* , java.sql.*" %>
<%@ page import = "javax.servlet.http.* , javax.servlet.*" %>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix = "c" %>
```

```
<%@ taglib uri="http://java.sun.com/jsp/jstl/sql" prefix = "sql"%>
<html>
<head>
<title>SELECT Operation</title>
<style>
table{
    margin: 80px;
    border-collapse: collapse;
    border: 1px solid black;
    width: 50%;
}
th,td{
    border: 1px solid black;
    padding: 5px;
}
</style>
</head>
<body>
<sql:setDataSource var = "snapshot" driver = "com.mysql.jdbc.Driver"
url="jdbc:mysql://localhost/TEST?useUnicode=true&useJDBCCompliantTimezo
neShift=true&useLegacyDatetimeCode=false&serverTimezone=UTC"
user = "root" password = ""/>
<sql:query dataSource = "${snapshot}" var = "result">
SELECT * from Students;
</sql:query>
<center>
<table>
<tr>
<th>Reg No</th>
<th>Name</th>
<th>Age</th>
<th>Email</th>
</tr>
<c:forEach var = "row" items = "${result.rows}">
<tr>
<td><c:out value = "${row.regno}" /></td>
<td><c:out value = "${row.name}" /></td>
<td><c:out value = "${row.age}" /></td>
<td><c:out value = "${row.email}" /></td>
</tr>
</c:forEach>
```

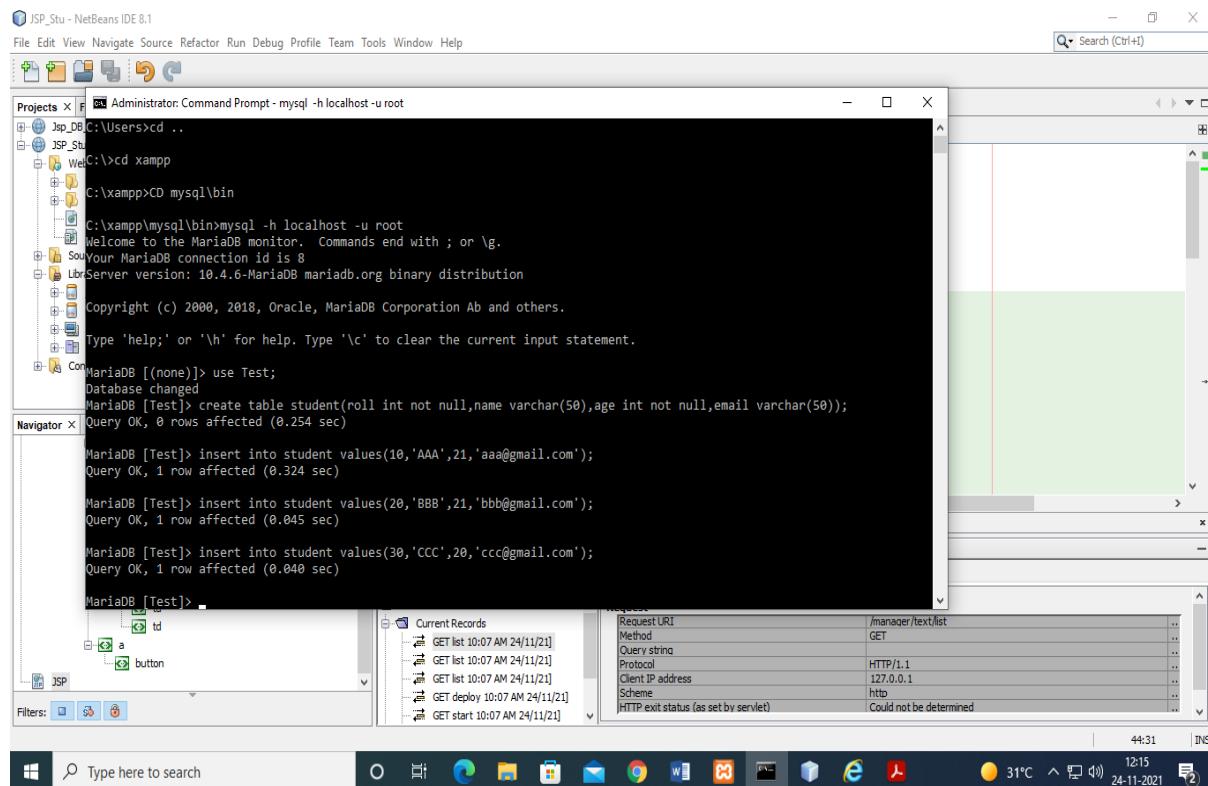
```
</table>
</center>
</body>
</html>
```

(ii) insert.jsp:

```
<%@ page import = "java.io.* ,java.util.* ,java.sql.* "%>
<%@ page import = "javax.servlet.http.* ,javax.servlet.* "%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix = "c"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/sql" prefix = "sql"%>
<html>
<head>
<title>INSERT Operation</title>
<style>
table{
    margin: 80px;
    border-collapse: collapse;
    border: 1px solid black;
    width: 50%;
}
th,td{
    border: 1px solid black;
    padding: 5px;
}
</style>
</head>
<body>
<sql:setDataSource var = "snapshot" driver = "com.mysql.jdbc.Driver"
url="jdbc:mysql://localhost/TEST?useUnicode=true&useJDBCCompliantTimezo
neShift=true&useLegacyDatetimeCode=false&serverTimezone=UTC"
user = "root" password = ""/>
<sql:update dataSource = "${snapshot}" var = "result">
INSERT INTO Students VALUES (5050, 'DDD', 22, 'ddd@msec.com');
</sql:update>
<sql:query dataSource = "${snapshot}" var = "result">
SELECT * from Students;
</sql:query>
<center>
<table border = "1" width = "100%">
<tr>
<th>Regno</th>
```

```
<th>Name</th>
<th>Age</th>
<th>Email</th>
</tr>
<c:forEach var = "row" items = "${result.rows}"><tr>
<td><c:out value = "${row.regno}" /></td>
<td><c:out value = "${row.name}" /></td>
<td><c:out value = "${row.age}" /></td>
<td><c:out value = "${row.email}" /></td></tr>
</c:forEach>
</table>
</center>
</body>
</html>
```

OUTPUT:



The screenshot shows the NetBeans IDE interface with the title bar "JSP_Stu - NetBeans IDE 8.1". The menu bar includes File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help. The toolbar has icons for New Project, New File, and others. The main area has a terminal window titled "Administrator: Command Prompt - mysql -h localhost -u root" showing MySQL commands and their results. The Navigator pane on the left lists project files like JSP_DB, JSP_Stu, and WebContent. The bottom status bar shows the date and time.

```
C:\Users>cd ..
C:\Users>cd xampp
C:\xampp>CD mysql\bin
C:\xampp\mysql\bin>mysql -h localhost -u root
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MariaDB connection id is 8
Server version: 10.4.6-MariaDB mariadb.org binary distribution
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

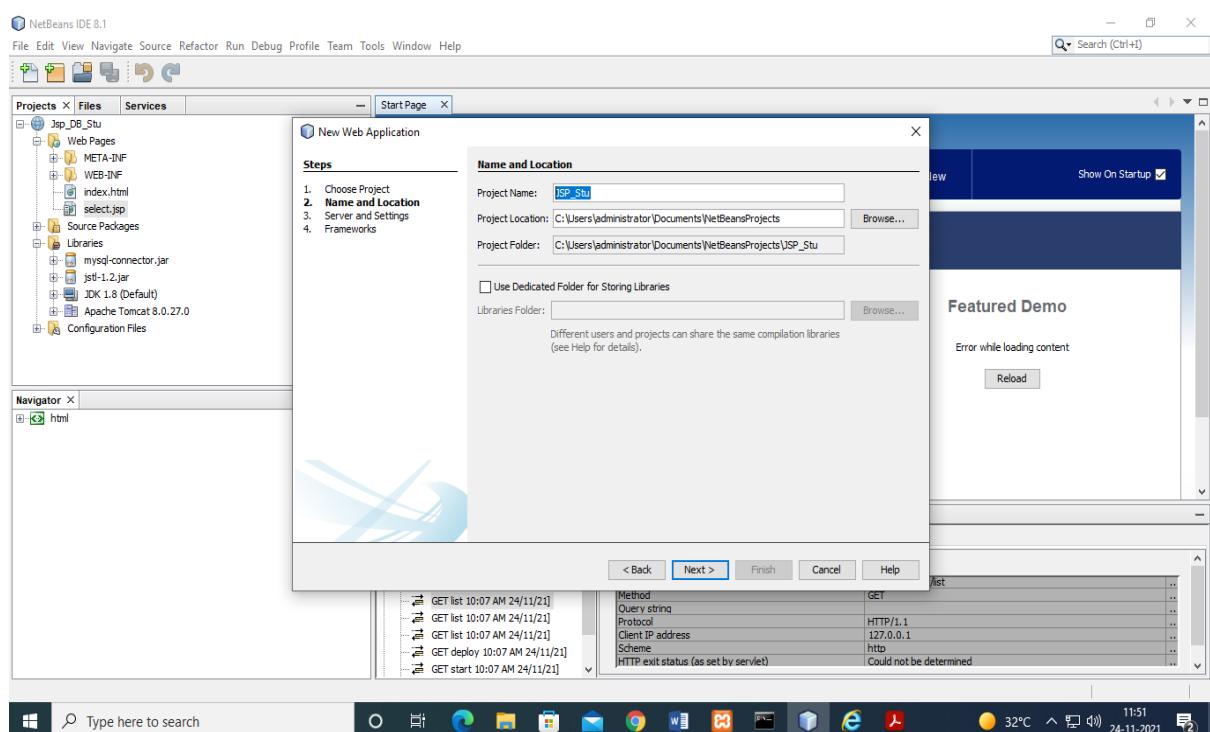
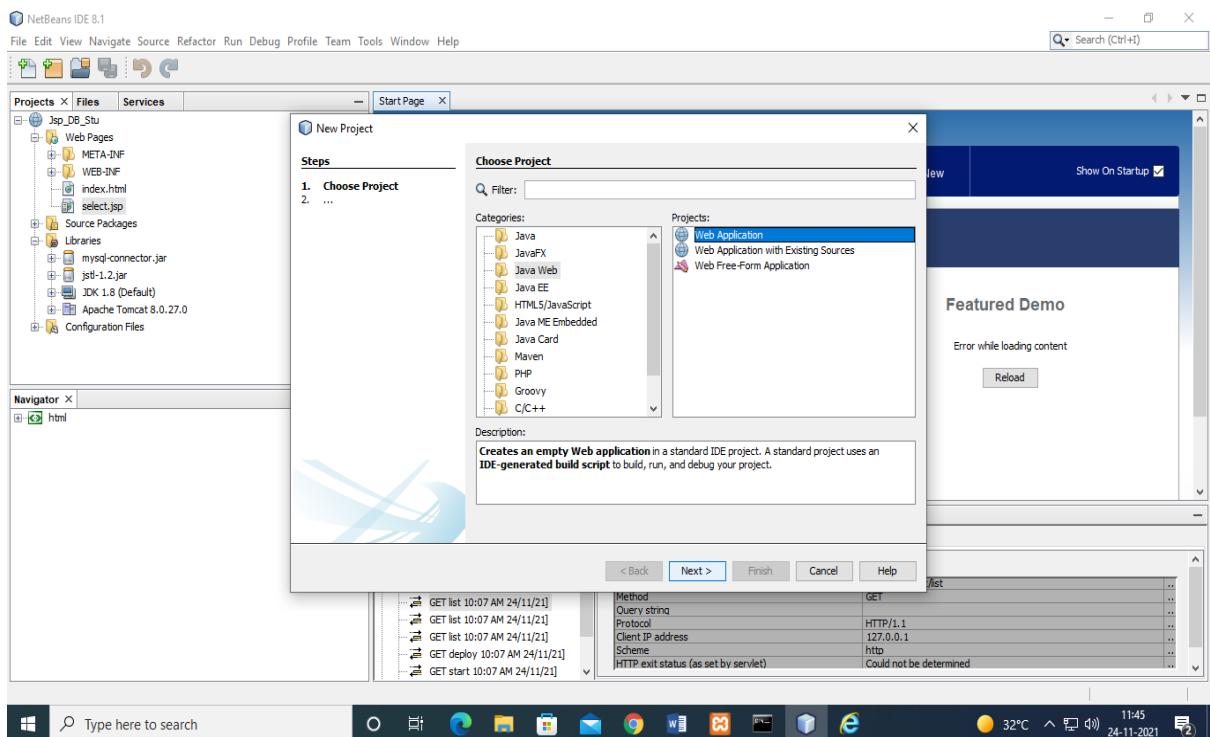
MariaDB [(none)]> use Test;
Database changed
MariaDB [Test]> create table student(roll int not null,name varchar(50),age int not null,email varchar(50));
Query OK, 0 rows affected (0.254 sec)

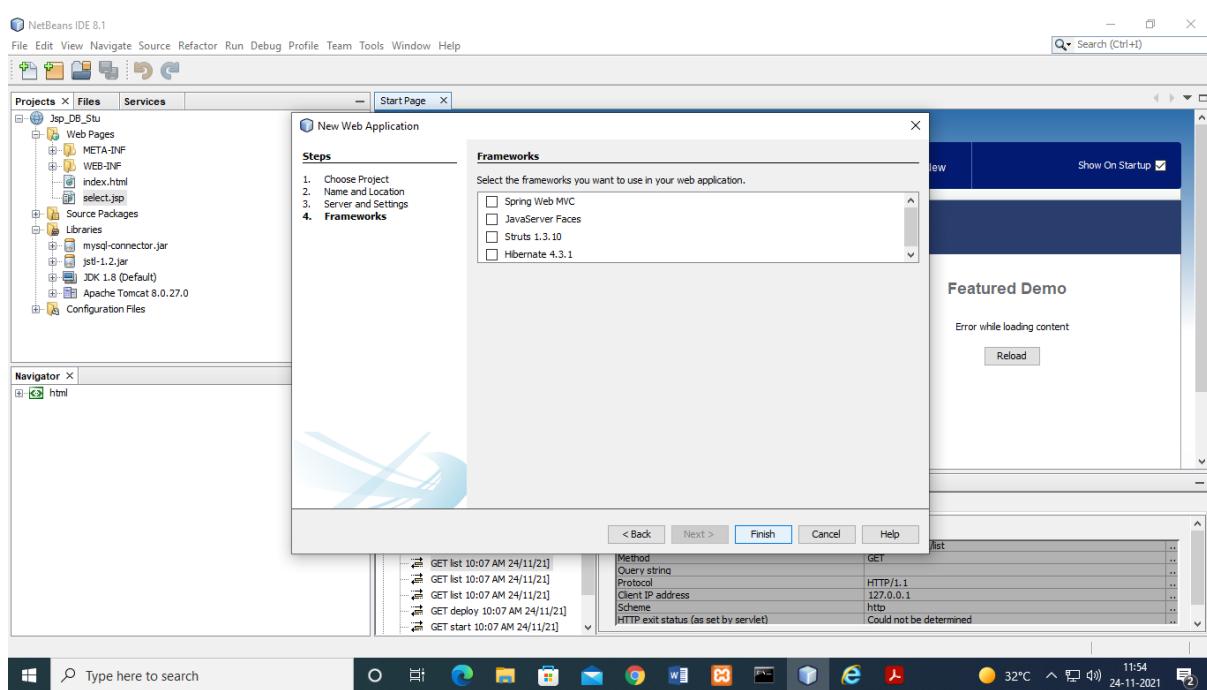
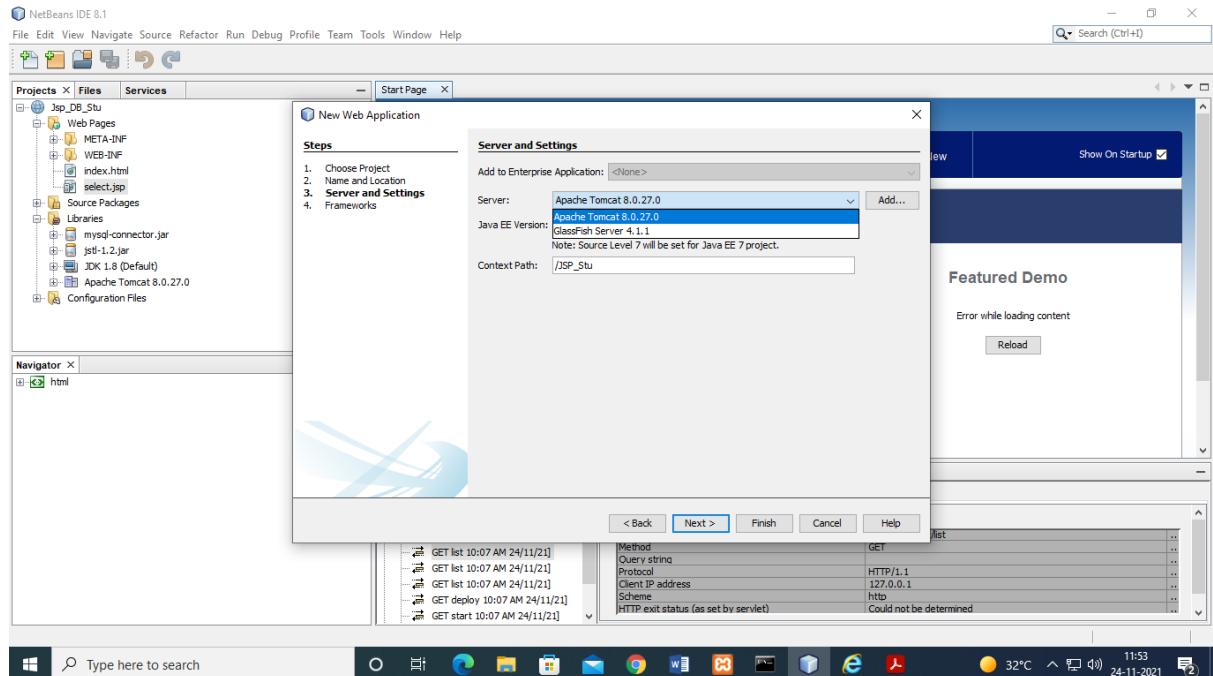
MariaDB [Test]> insert into student values(10,'AAA',21,'aaa@gmail.com');
Query OK, 1 row affected (0.324 sec)

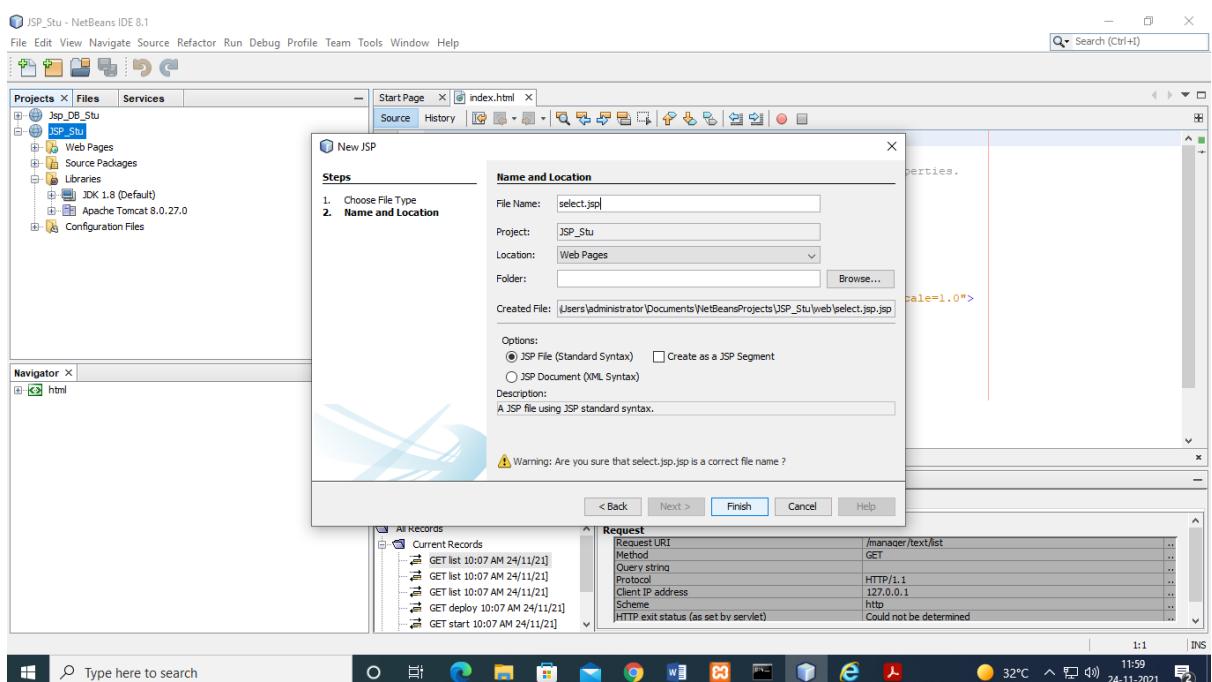
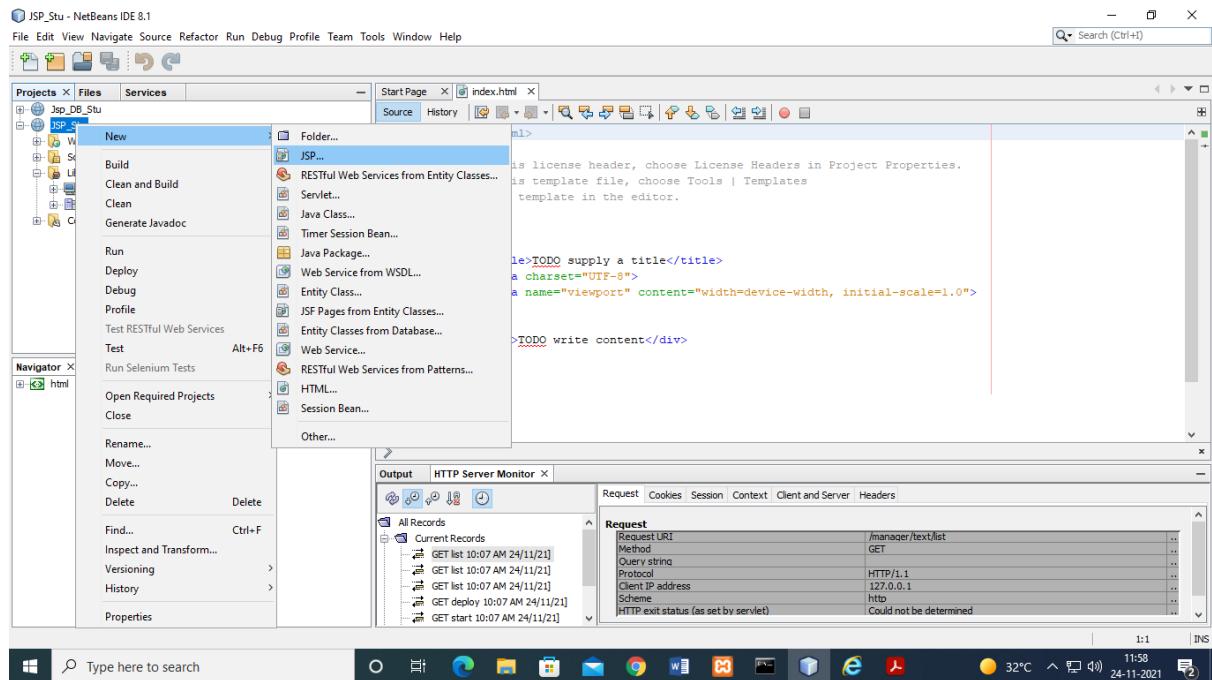
MariaDB [Test]> insert into student values(20,'BBB',21,'bbb@gmail.com');
Query OK, 1 row affected (0.045 sec)

MariaDB [Test]> insert into student values(30,'CCC',20,'ccc@gmail.com');
Query OK, 1 row affected (0.040 sec)

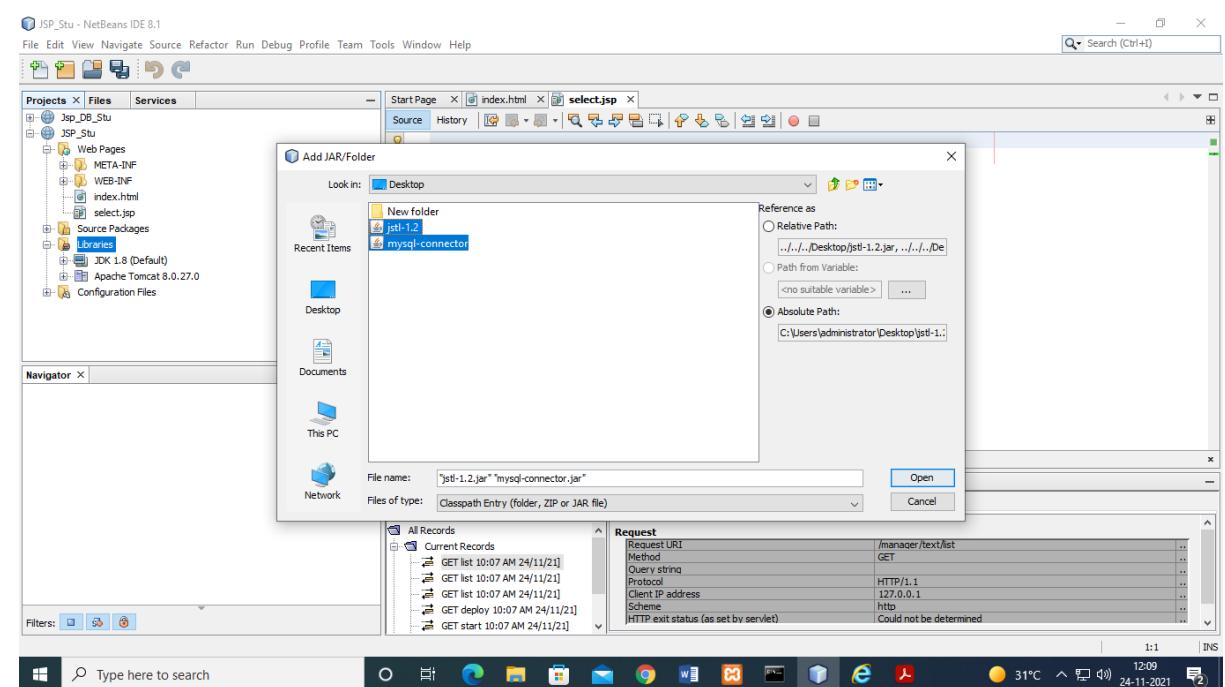
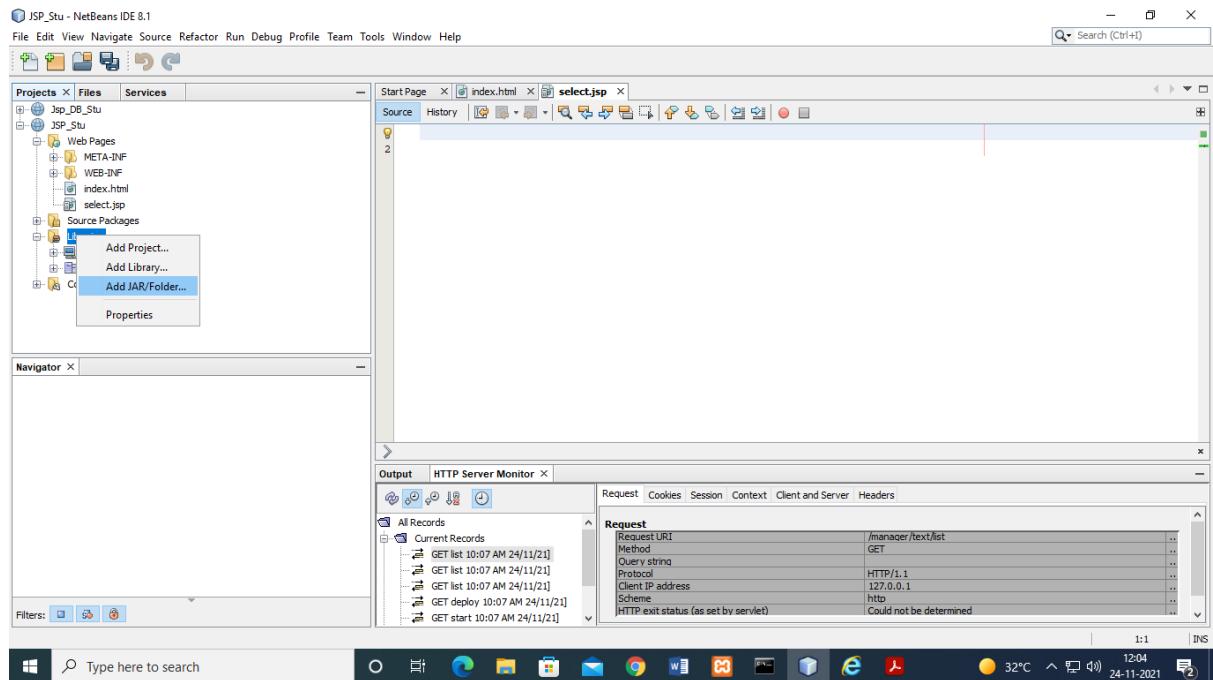
MariaDB [Test]>
```

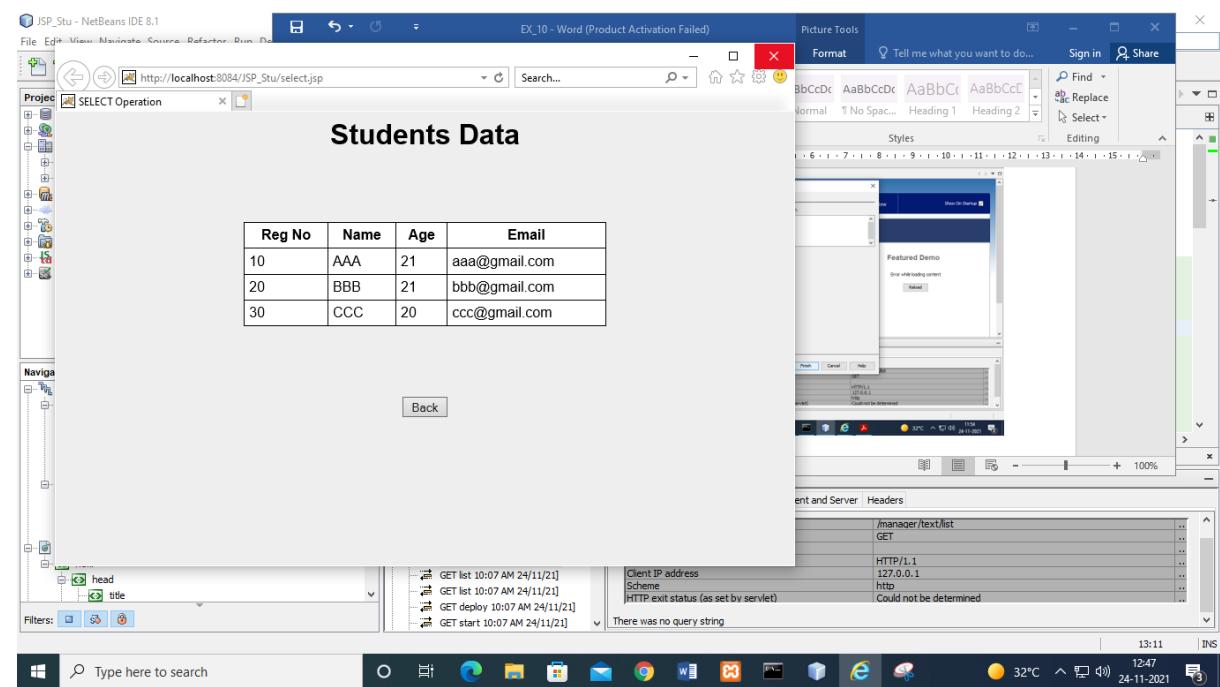
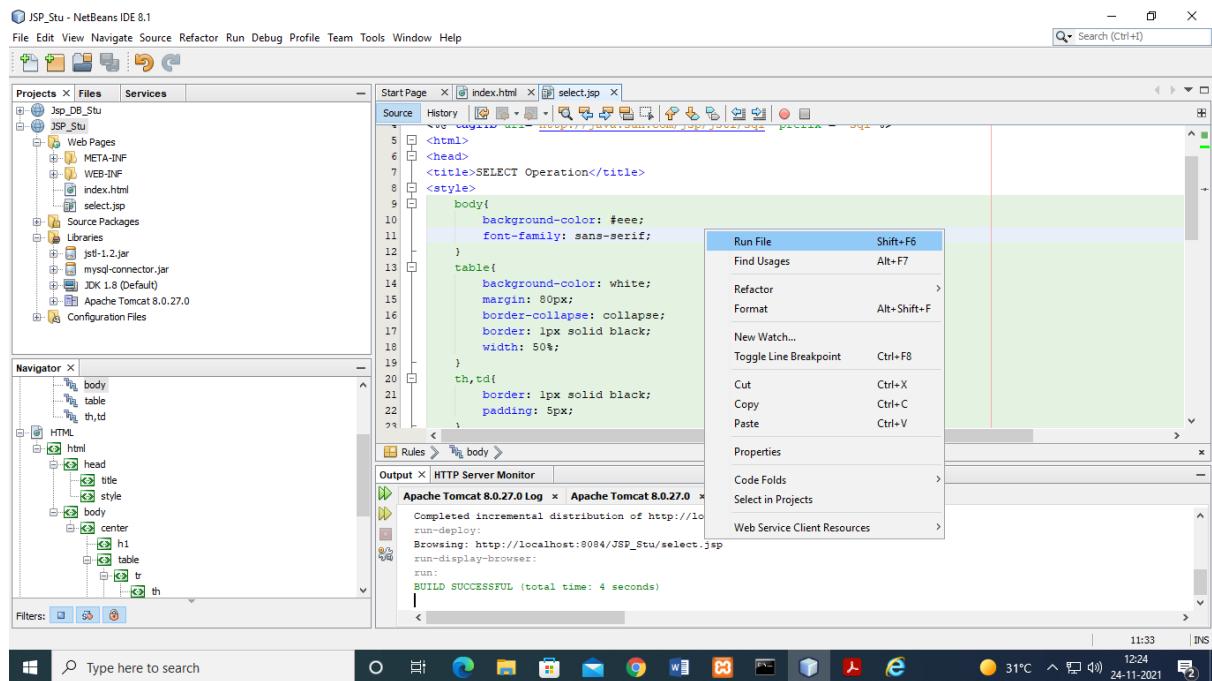


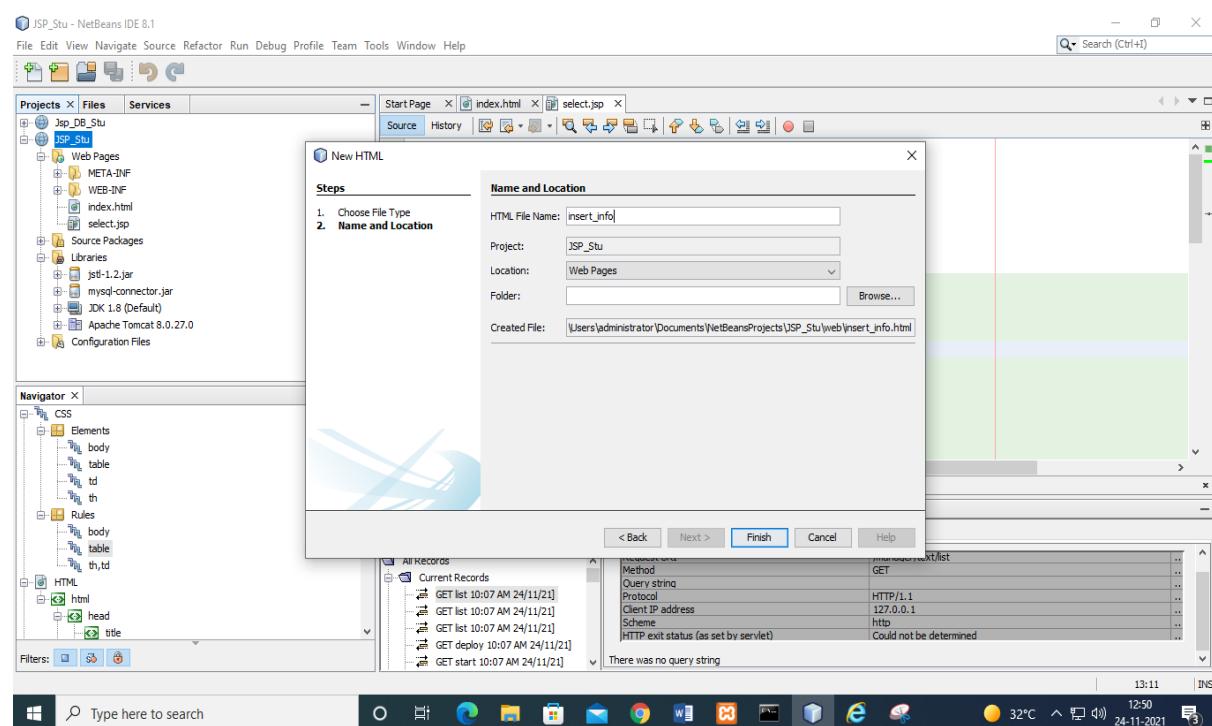
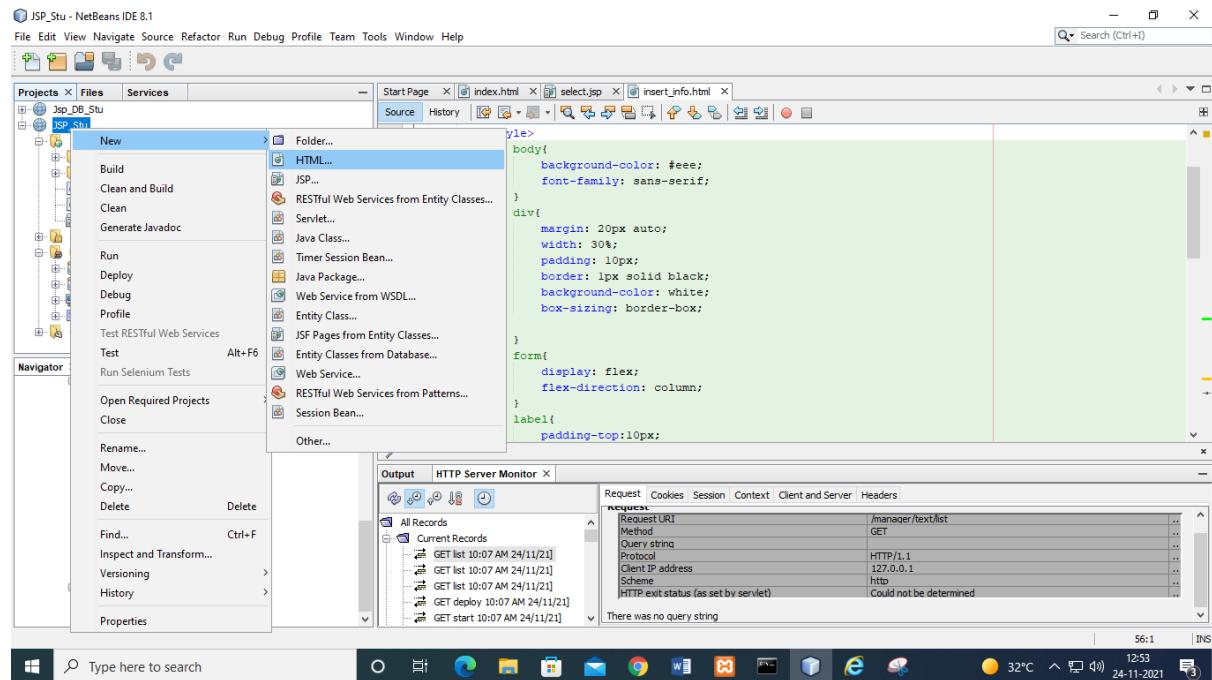


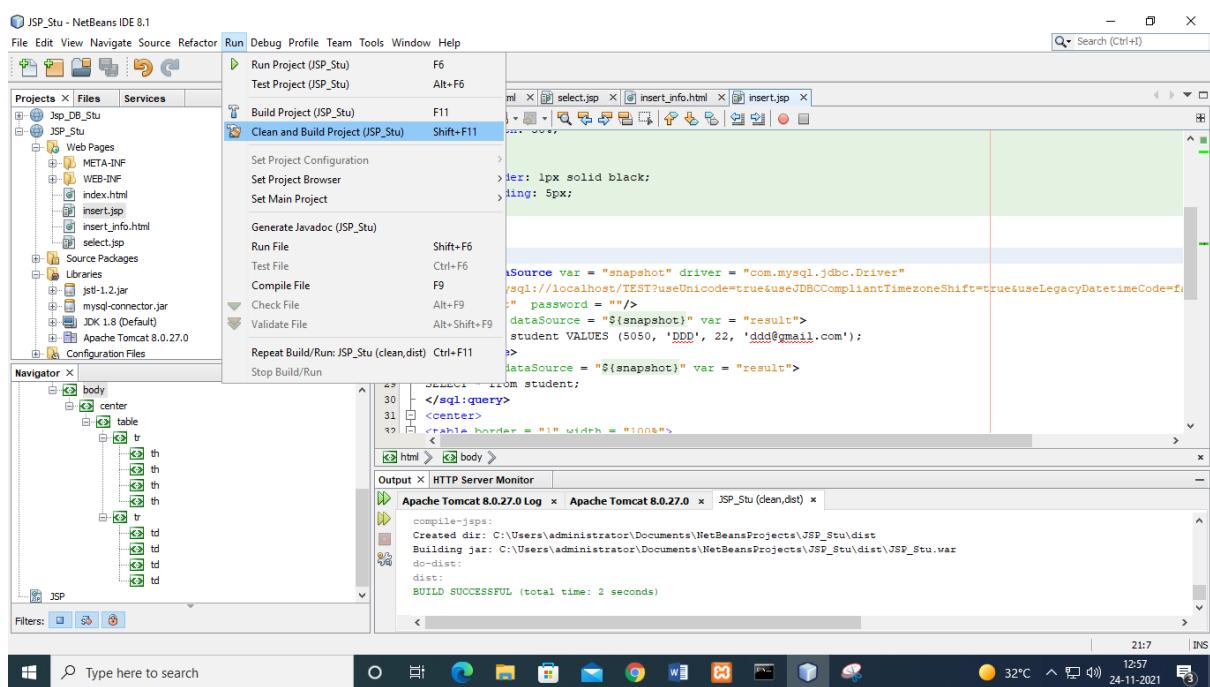
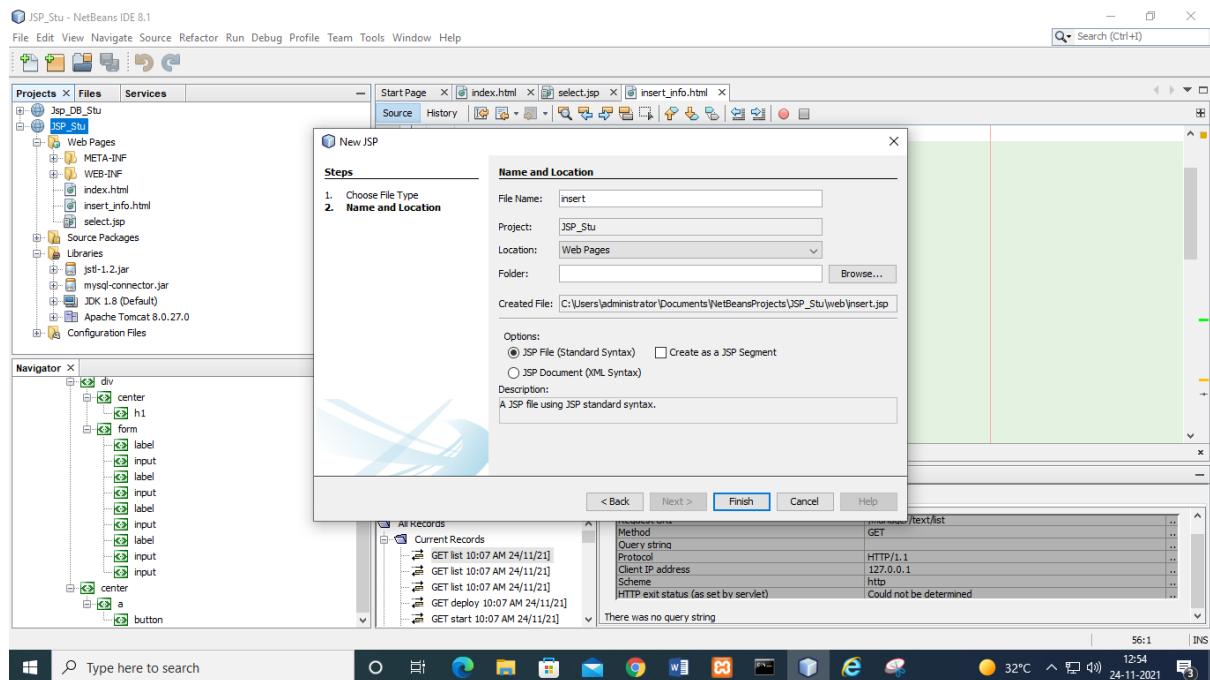


DEEKSHANA A
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JSP_Stu - NetBeans IDE 8.1

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Projects x Files Services

Start Page x index.html x select.jsp x insert_info.html x insert.jsp x

Source History

```
22 <sql: dataSource var="snapshot" driver="com.mysql.jdbc.Driver"
23 url="jdbc:mysql://localhost/TEST?useUnicode=true&useJDBCCompliantTimezoneShift=true&useLegacyDatetimeCode=false&
24 user="root" password="">
25 <sql:update dataSource="${snapshot}" var="result">
26 INSERT INTO student VALUES (5050, 'DDD', 22, 'ddd@gmail.com');
27 </sql:update>
28 <sql:query dataSource="${snapshot}" var="result">
29 SELECT * from student;
30 </sql:query>
31 <center>
32 <table border="1" width="100%">
33 <tr>
34 <th>Regno</th>
35 <th>Name</th>
36 <th>Age</th>
37 <th>Email</th>
38 </tr>
39 <c:forEach var="row" items="${result.rows}"><tr>
40 <td><c:out value="${row.roll}"></td>
41 <td><c:out value="${row.name}"></td>
<td>
```

Run File Shift+F6

Find Usages Alt+F7

Refactor >

Format Alt+Shift+F

New Watch...

Toggle Line Breakpoint Ctrl+F8

Cut Ctrl+X

Copy Ctrl+C

Paste Ctrl+V

Properties

Code Folds >

Select in Projects

Web Service Client Resources >

Output x HTTP Server Monitor

Apache Tomcat 8.0.27.0 Log x Apache Tomcat 8.0.27.0 x JSP_Stu (run) x

Completed incremental distribution of http://localhost:8084/JSP_Stu

run-deploy:

Browsing: http://localhost:8084/JSP_Stu/insert.jsp

run-display-browser:

run

BUILD SUCCESSFUL (total time: 5 seconds)

Filters:

Type here to search

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Project Start Page INSERT Operation x

http://localhost:8084/JSP_Stu/insert.jsp

Search... Filters:

Regno	Name	Age	Email
10	AAA	21	aaa@gmail.com
20	BBB	21	bbb@gmail.com
30	CCC	20	ccc@gmail.com
5050	DDD	22	ddd@gmail.com

Navigation

Filters:

Output x Apache Tomcat 8.0.27.0 Log x Apache Tomcat 8.0.27.0 x JSP_Stu (run) x

run:

BUILD SUCCESSFUL (total time: 5 seconds)

30:13 13:09 24-11-2021

Type here to search

32°C 13:03 24-11-2021

EX NO:11b

DATE:06/11/2021

Constructing a HTML Document by Sorting and Transforming an XML File

PROBLEM STATEMENT:

Write an XSLT program that transforms the XML document containing information about the weather details as given below. Construct the document into an HTML sorted list by maximum temperature.

City	Minimum Temperature	Maximum Temperature
New Delhi	41 C	45 C
Mumbai	31 C	33 C
Kolkata	35 C	40 C
Chennai	38 C	41 C
Bangalore	33 C	37 C

AIM:

To write a XSLT program to transform XML document which contains the data of the forecast sort the data before display.

PROCEDURE:

- Create an XML file which contains the information.
- Create an XSLT file which reads data from the XML file and transform into html document.
- Now open the XML notepad.
- Open the XML file on it, it can be previewed under preview tab.
- Now click on XSL output tab.
- Now the output can be viewed here.

PROGRAM:

(i) weather.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet href="XMLstyle.xsl" type="text/xsl" ?>
<forecast>
<weather>
```

```
<city>New Delhi</city>
<mintemp>41C</mintemp>
<maxtemp>45C</maxtemp>
</weather>
<weather>
<city>Mumbai</city>
<mintemp>31C</mintemp>
<maxtemp>33C</maxtemp>
</weather>
<weather>
<city>Kolkata</city>
<mintemp>35C</mintemp>
<maxtemp>40C</maxtemp>
</weather>
<weather>
<city>Chennai</city>
<mintemp>38C</mintemp>
<maxtemp>41C</maxtemp>
</weather>
<weather>
<city>Bangalore</city>
<mintemp>33C</mintemp>
<maxtemp>37C</maxtemp>
</weather>
</forecast>
```

(ii) XMLstyle.xsl:

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:template match="/">
<html><body>
<h2>Weather Forecast</h2>
<table border="1">
<tr bgcolor="#9acd32">
<th>City</th>
```

```
<th>Mininum Temperature</th>
<th>Maximum Temperature</th>
</tr>
<xsl:for-each select="forecast/weather">
  <xsl:sort select="maxtemp" order="descending"/>
<tr>
  <td><xsl:value-of select="city" /></td>
  <td><xsl:value-of select="mintemp" /></td>
  <td><xsl:value-of select="maxtemp" /></td>
</tr>
</xsl:for-each>
</table>
</body>
</html>
</xsl:template>
</xsl:stylesheet>
```

OUTPUT:

The screenshot shows the XML Notepad interface with the file `E:\WT_rec\11\weather\weather.xml` open. The left pane displays the XML tree structure, and the right pane shows the XML output. The XML structure is as follows:

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet href="XMLstyle.xsl" type="text/xsl"?>
<forecast>
  <weather>
    <city>New Delhi</city>
    <mintemp>41C</mintemp>
    <maxtemp>45C</maxtemp>
  </weather>
  <weather>
    <city>Mumbai</city>
    <mintemp>31C</mintemp>
    <maxtemp>33C</maxtemp>
  </weather>
  <weather>
    <city>Kolkata</city>
    <mintemp>35C</mintemp>
    <maxtemp>40C</maxtemp>
  </weather>
  <weather>
    <city>Chennai</city>
    <mintemp>38C</mintemp>
    <maxtemp>41C</maxtemp>
  </weather>
  <weather>
    <city>Banglore</city>
    <mintemp>33C</mintemp>
    <maxtemp>37C</maxtemp>
  </weather>
</forecast>
```

The XML output pane shows the following data:

City	Mintemp	Maxtemp
New Delhi	41C	45C
Mumbai	31C	33C
Kolkata	35C	40C
Chennai	38C	41C
Banglore	33C	37C

The screenshot shows the XML Notepad interface. At the top, the title bar reads "XML Notepad - E:\WT_rec\11\weather\weather.xml". The menu bar includes File, Edit, View, Insert, Window, and Help. Below the menu is a toolbar with icons for Open, Save, Print, and others. The main window displays the XML code:

```
<?xml version="1.0"?>
<weather>
    <city>New Delhi</city>
    <minTemp>41C</minTemp>
    <maxTemp>45C</maxTemp>
    <city>Chennai</city>
    <minTemp>38C</minTemp>
    <maxTemp>41C</maxTemp>
    <city>Kolkata</city>
    <minTemp>35C</minTemp>
    <maxTemp>40C</maxTemp>
    <city>Banglore</city>
    <minTemp>33C</minTemp>
    <maxTemp>37C</maxTemp>
    <city>Mumbai</city>
    <minTemp>31C</minTemp>
    <maxTemp>33C</maxTemp>
</weather>
```

Below the XML code, there are tabs for "Tree View" and "XSL Output". The "XSL Output" tab is selected, showing the resulting HTML table:

City	Minimum Temperature	Maximum Temperature
New Delhi	41C	45C
Chennai	38C	41C
Kolkata	35C	40C
Banglore	33C	37C
Mumbai	31C	33C

At the bottom of the interface, there are buttons for "Transform" and "Output: XMLstyle_output.htm". The status bar at the bottom left shows "Error List" and "Dynamic Help".

RESULT:

Thus, XSLT program that transforms the XML document containing information about the weather details were executed successfully.

EX NO:11a

DATE:06/11/2021

Applying XSLT Transformation On XML File

PROBLEM STATEMENT:

Write an XSLT program that will transform the given XML document containing information about CD's.

AIM:

To write a XSLT program to transform XML document which contains info about CD's.

PROCEDURE:

- Create an XML file which contains the information.
- Create an XSLT file which reads data from the XML file and transform into html document.
- Now open the XML notepad.
- Open the XML file on it, it can be previewed under preview tab.
- Now click on XSL output tab.
- Now the output can be viewed here.

PROGRAM:

(i) catalog.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet href="XMLstyle.xsl" type="text/xsl" ?>
<catalog>
<cd>
<title>Empire Burlesque</title>
<artist>Bob Dylan</artist>
<country>USA</country>
<company>Columbia</company>
<price>10.90</price>
<year>1985</year>
</cd>
<cd>
<title>Hide your heart</title>
```

```
<artist>Bonnie Tyler</artist>
<country>UK</country>
<company>CBS Records</company>
<price>9.90</price>
<year>1988</year>
</cd>
<cd>
<title>Greatest Hits</title>
<artist>Dolly Parton</artist>
<country>USA</country>
<company>RCA</company>
<price>9.90</price>
<year>1982</year>
</cd>
<cd>
<title>Still got the blues</title>
<artist>Gary Moore</artist>
<country>UK</country>
<company>Virgin records</company>
<price>10.20</price>
<year>1990</year>
</cd>
<cd>
<title>Eros</title>
<artist>Eros Ramazzotti</artist>
<country>EU</country>
<company>BMG</company>
<price>9.90</price>
<year>1997</year>
</cd>
<cd>
<title>One night only</title>
<artist>Bee Gees</artist>
<country>UK</country>
<company>Polydor</company>
<price>10.90</price>
<year>1998</year>
</cd>
<cd>
<title>Sylvias Mother</title>
```

```
<artist>Dr.Hook</artist>
<country>UK</country>
<company>CBS</company>
<price>8.10</price>
<year>1973</year>
</cd>
</catalog>
```

(ii) XMLstyle.xsl:

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:template match="/">
<html>
<body>
<h2>My CD Collection</h2>
<table border="1">
<tr bgcolor="#9acd32">
<th>Title</th>
<th>Artist</th>
</tr>
<xsl:for-each select="catalog/cd">
<tr>
<td><xsl:value-of select="title" /></td>
<td><xsl:value-of select="artist" /></td>
</tr>
</xsl:for-each>
</table>
</body>
</html>
</xsl:template>
</xsl:stylesheet>
```

OUTPUT:

The screenshot shows the XML Notepad interface with two main panes. The left pane displays the XML tree view of the catalog.xml file, which contains a root node 'catalog' with multiple 'cd' children, each having attributes like title, artist, country, company, price, and year. The right pane shows the XSLT output, which is an HTML table titled 'My CD Collection' containing the following data:

Title	Artist
Empire Burlesque	Bob Dylan
Hide your heart	Bonnie Tyler
Greatest Hits	Dolly Parton
Still got the blues	Gary Moore
Eros	Eros Ramazzotti
One night only	Bee Gees
Sylvias Mother	Dr Hook

Below the XML Notepad, there is another window showing the XSLT transformation process. It has tabs for 'XSLT Location' (set to 'XMLstyle.xsl') and 'Output' (set to 'XMLstyle_output.htm'). The output pane is currently empty.

RESULT:

Thus, XSLT program that will transform the given XML document containing information about CD's were executed successfully.

Ex no: 12.a	DEVELOPING AJAX APPLICATION TO DISPLAY A TEXT
01/11/2021	

PROBLEM STATEMENT:

Develop an Ajax application to display the text entered in text box in a web page.

AIM:

To write a program to create an ajax application which display name.

PROCEDURE:

- Create ajax folder on the ROOT folder of webapps.
- Add the html file which contains the ajax request to server.
- Turn on the server.
- Now open the file using the following url, localhoast:8080/ajax/as.html

PROGRAM:

(i) as.html:

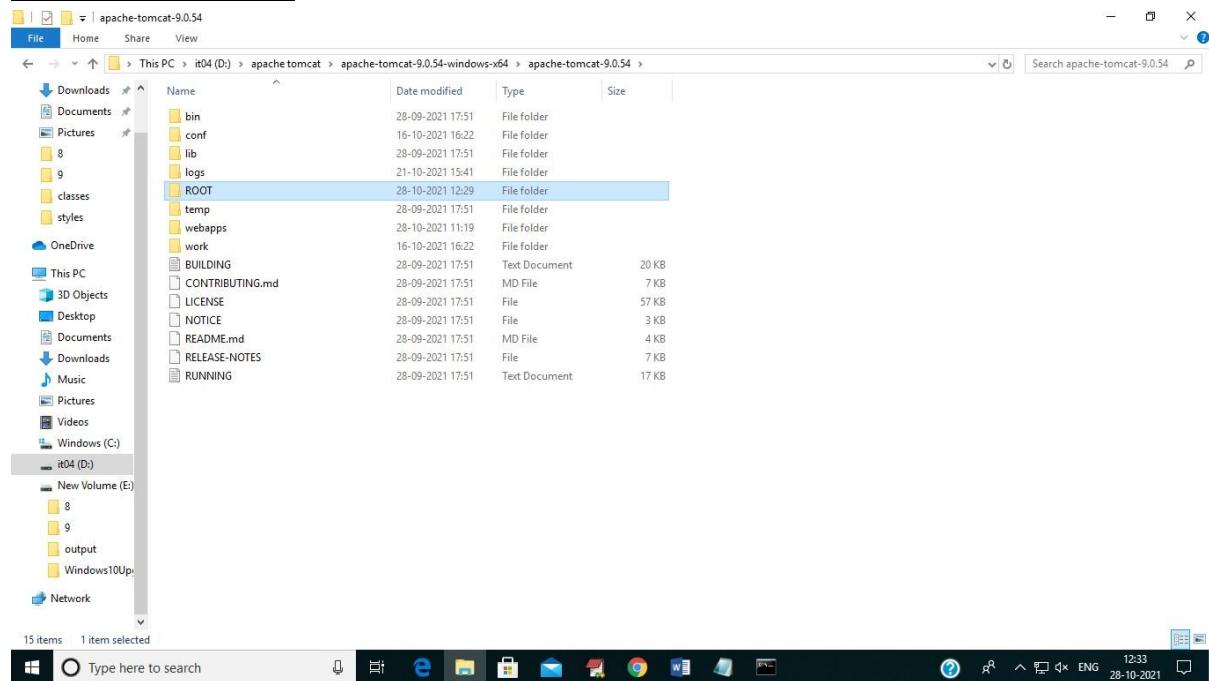
```
<html>
  <head>
    <title>Input and value</title>
    <style>
      * {
        font-family: sans-serif;
      }
      form {
        margin: 100px auto;
        width: 500px;
        text-align: center;
      }
      p {
        text-align: center;
```

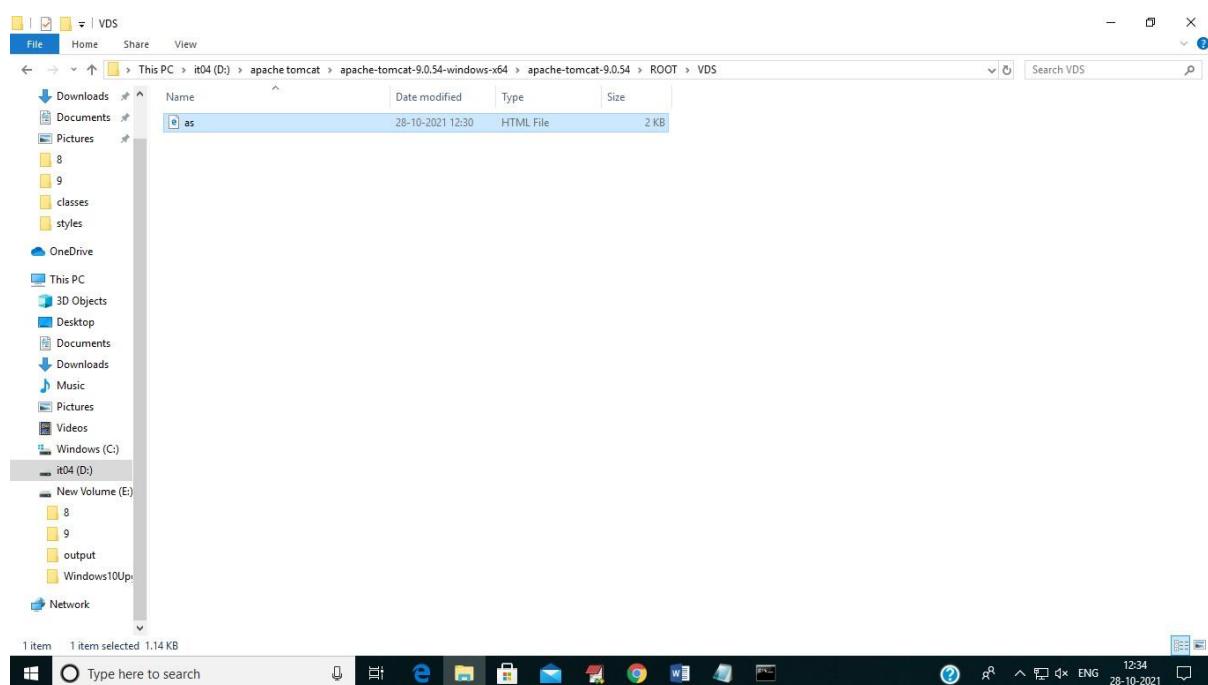
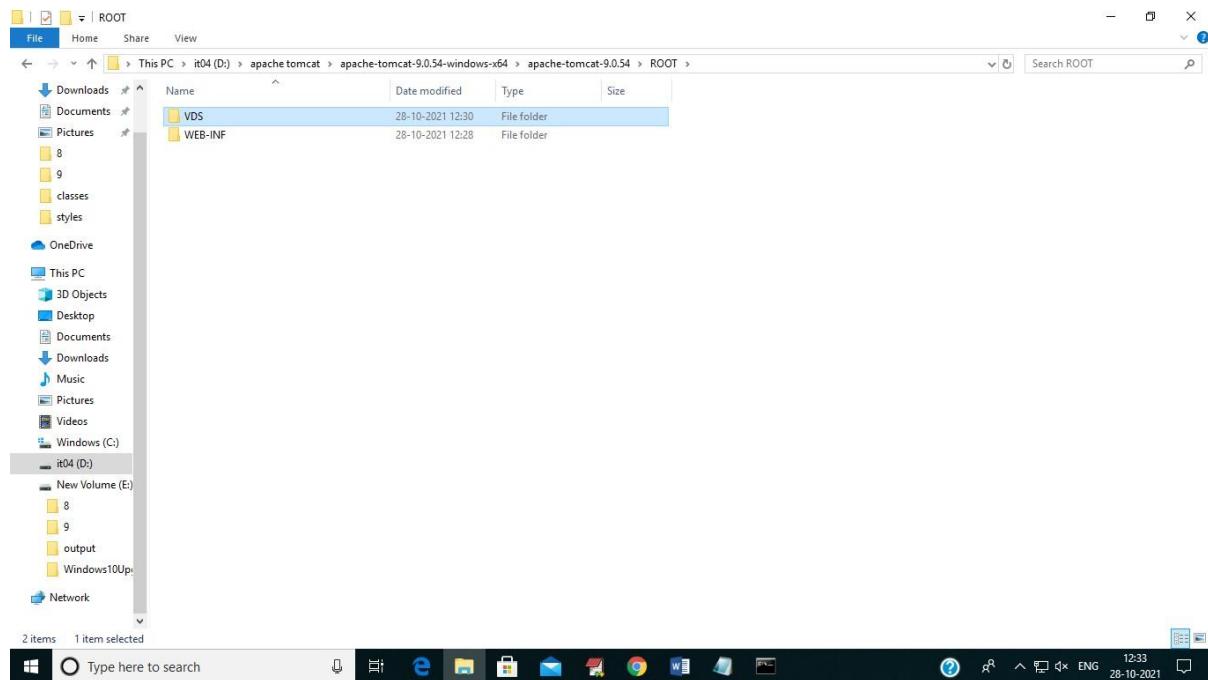
```
        }
    </style>
</head>
<body>
<form autocomplete="off">
    Name: <input type="text" id="name" />
    <button onclick="showName()">Print</button>
</form>
<p>name given: <span id="n"></span></p>

<script type="text/javascript">
    function showName() {
        event.preventDefault();
        var str = document.getElementById("name").value;
        if (str.length == 0) {
            document.getElementById("n").innerHTML = "";
            return true;
        } else {
            var xmlhttp = new XMLHttpRequest();
            xmlhttp.onreadystatechange = function () {
                if (xmlhttp.readyState == 4 && xmlhttp.status == 200) {
                    document.getElementById("n").innerHTML = str;
                }
            };
            xmlhttp.open("GET", "as.html", true);
            xmlhttp.send();
        }
    }
</script>
</body>
</html>
```

OUTPUT:

Folder structure





Browser view:



Name: Print

name given: DEEKSHANA



RESULT:

Thus, the programs Ajax application to display the text entered in text box were executed successfully.

Ex no: 12.b	DEVELOPING AJAX APPLICATION
01/11/2021	TO ADD NUMBERS

PROBLEM STATEMENT:

Develop an Ajax application to display the addition of two values entered using text box in a web page.

AIM:

To write a program to create an ajax application which makes addition of two numbers.

PROCEDURE:

- Create ajax folder on the ROOT folder of webapps.
- Add the html file which contains the ajax request to server.
- Turn on the server.
- Now open the file using the following url, localhoast:8080/ajax/add.html

PROGRAM:

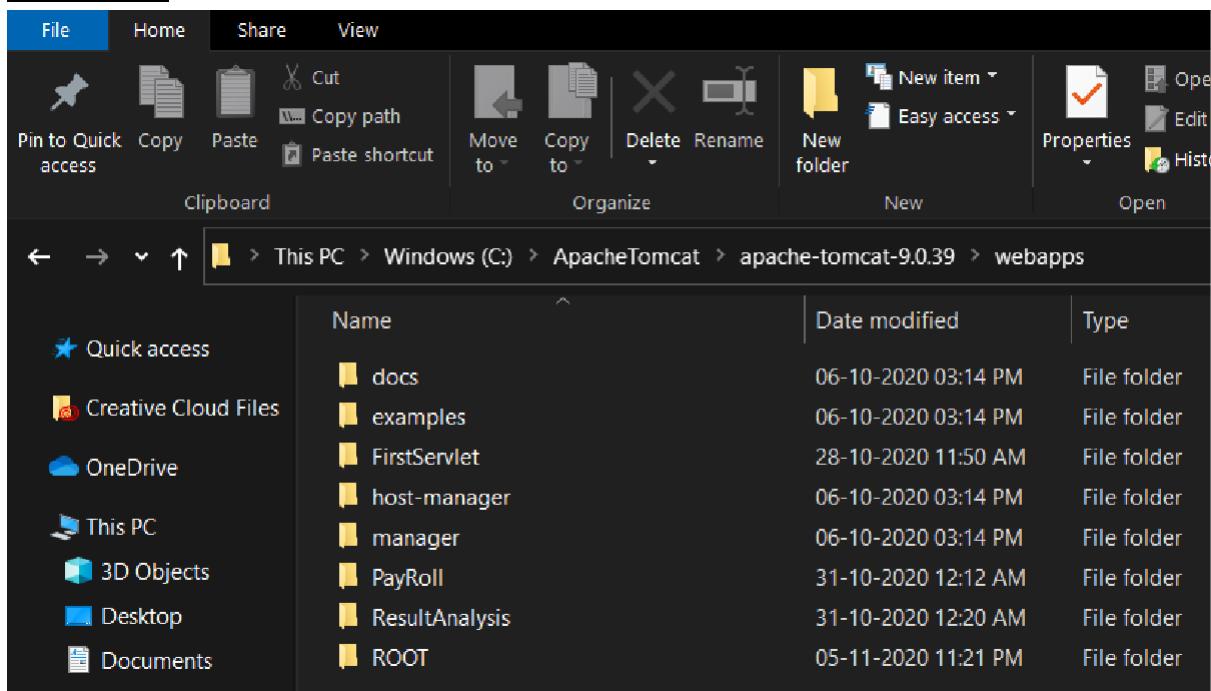
(i) add.html:

```
<html>
<head>
<title>Input and value</title>
</head>
<body>
<center>
<form autocomplete="off">
<label>Number 1:</label>
<input type="text" id="n1" />
<label>Number 2:</label>
<input type="text" id="n2" />

<button onclick="showResult()">Sum</button>
```

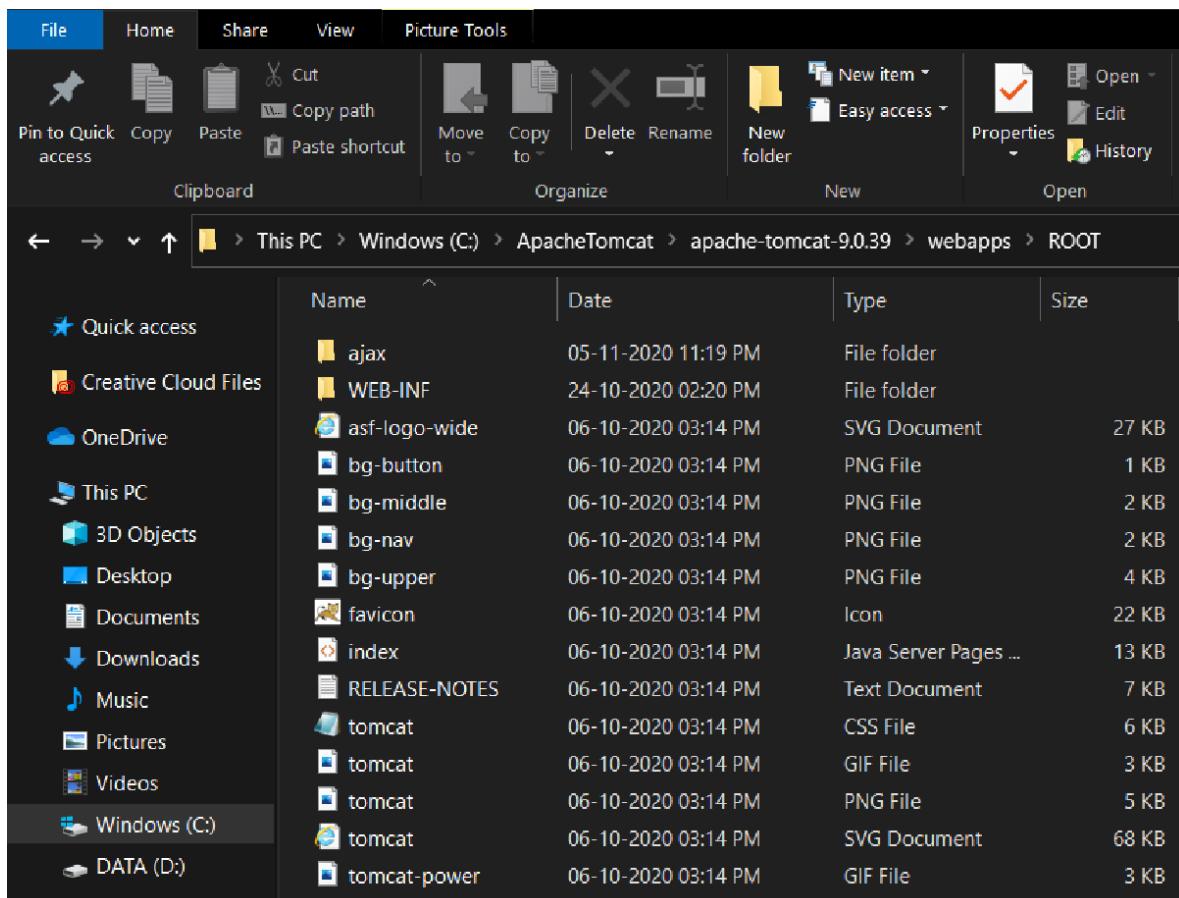
```
</form>
<p>answer: <span id="a"></span></p>
</center>
<script type="text/javascript">
    function showResult() {
        event.preventDefault();
        var n1 = document.getElementById("n1").value;
        var n2 = document.getElementById("n2").value;
        if (n1.length == 0 || n2.length == 0) {
            alert("Enter values..!!!");
            return true;
        } else {
            var xmlhttp = new XMLHttpRequest();
            xmlhttp.onreadystatechange = function () {
                if (xmlhttp.readyState == 4 && xmlhttp.status == 200) {
                    document.getElementById("a").innerHTML = Number(n1) +
                        Number(n2);
                }
            };
            xmlhttp.open("GET", "add.html", true);
            xmlhttp.send();
        }
    }
</script>
</body>
</html>
```

OUTPUT:



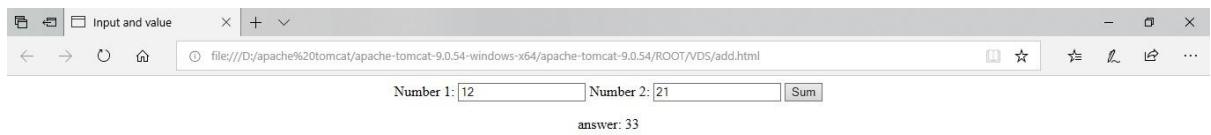
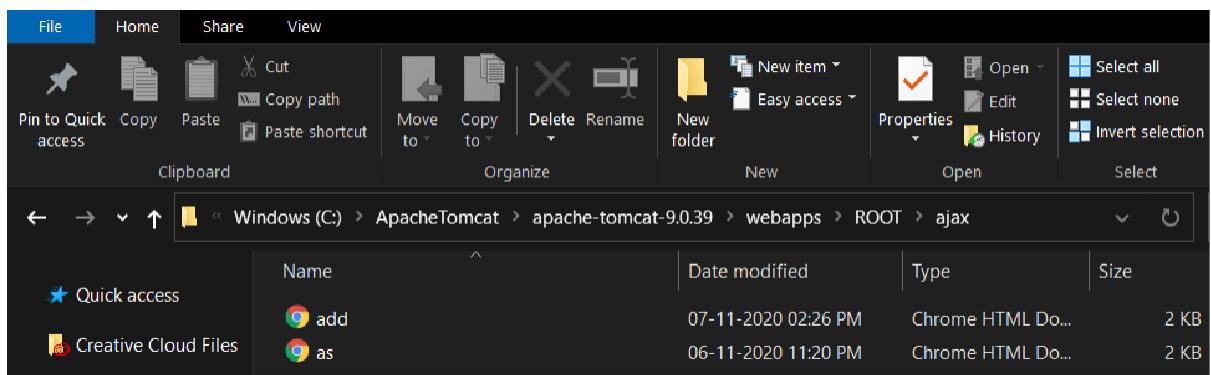
A screenshot of the Windows File Explorer interface. The title bar shows 'File Explorer'. The address bar indicates the path: 'This PC > Windows (C:) > ApacheTomcat > apache-tomcat-9.0.39 > webapps'. The ribbon menu has tabs for 'File', 'Home', 'Share', and 'View'. The 'View' tab is selected, showing icons for Pin to Quick access, Copy, Paste, Cut, Copy path, Paste shortcut, Move to, Copy to, Delete, Rename, New folder, New item, Easy access, Properties, Open, Edit, and History. The main area displays a list of files and folders in the 'webapps' directory. The columns are 'Name', 'Date modified', and 'Type'. The contents include:

Name	Date modified	Type
docs	06-10-2020 03:14 PM	File folder
examples	06-10-2020 03:14 PM	File folder
FirstServlet	28-10-2020 11:50 AM	File folder
host-manager	06-10-2020 03:14 PM	File folder
manager	06-10-2020 03:14 PM	File folder
PayRoll	31-10-2020 12:12 AM	File folder
ResultAnalysis	31-10-2020 12:20 AM	File folder
ROOT	05-11-2020 11:21 PM	File folder



A screenshot of the Windows File Explorer interface, similar to the previous one but with a different path. The address bar shows 'This PC > Windows (C:) > ApacheTomcat > apache-tomcat-9.0.39 > webapps > ROOT'. The ribbon menu and toolbar are identical. The main area displays a list of files and folders in the 'ROOT' directory. The columns are 'Name', 'Date', 'Type', and 'Size'. The contents include:

Name	Date	Type	Size
ajax	05-11-2020 11:19 PM	File folder	
WEB-INF	24-10-2020 02:20 PM	File folder	
ASF-LOGO-WIDE	06-10-2020 03:14 PM	SVG Document	27 KB
bg-button	06-10-2020 03:14 PM	PNG File	1 KB
bg-middle	06-10-2020 03:14 PM	PNG File	2 KB
bg-nav	06-10-2020 03:14 PM	PNG File	2 KB
bg-upper	06-10-2020 03:14 PM	PNG File	4 KB
favicon	06-10-2020 03:14 PM	Icon	22 KB
index	06-10-2020 03:14 PM	Java Server Pages ...	13 KB
RELEASE-NOTES	06-10-2020 03:14 PM	Text Document	7 KB
tomcat	06-10-2020 03:14 PM	CSS File	6 KB
tomcat	06-10-2020 03:14 PM	GIF File	3 KB
tomcat	06-10-2020 03:14 PM	PNG File	5 KB
tomcat	06-10-2020 03:14 PM	SVG Document	68 KB
tomcat-power	06-10-2020 03:14 PM	GIF File	3 KB



RESULT:

Thus, the programs Ajax application to display the addition of two values entered using text box were executed successfully.