Terna Engineering College Computer Engineering Department

Program: Sem V

Course: Web Technology Laboratory (CSL504)

Faculty: Mrs. Reshma Koli

LAB Manual

PART A

(PART A: TO BE REFERRED BY STUDENTS)

Experiment No. 2b

A.1 Aim:

A. Design Website using CSS.

A.2 Prerequisite:

- 1. Knowledge of World Wide Web (WWW)
- 2. Knowledge of core concepts of web technology.

A.3 Outcome:

After successful completion of this experiment students will be able to

- 1. Design static web page using HTML5
- 2. Understand concepts of frameset.

A.4 Theory:

CSS:

CSS is an acronym for **C**ascading **S**tyle **S**heets

CSS is a style language that defines layout of HTML documents. For example, CSS covers fonts, colours, margins, lines, height, width, background images, advanced positions and many other things.

HTML can be used to add layout to websites. But CSS offers more options and is more accurate and sophisticated. CSS is supported by all browsers today.

✓ The benefits of CSS include:

- control layout of many documents from one single style sheet;
- more precise control of layout;
- apply different layout to different media-types (screen, print, etc.);
- numerous advanced and sophisticated techniques.

✓ The basic CSS syntax

Using **HTML** we could have done it like this:

body {background-color: #FF0000;}

The fundamental CSS model:

```
selector (property: value;)
                        The value of
What HTML
                            the property
tag(s) does
                            background color
the property
                            could be red for
apply to
                            example ("#FF0000")
(e.g. "body") The property
             could for
              example be
              the background
              color
             ("background-color")
```

✓ Applying CSS to an HTML document

There are three ways you can apply CSS to an HTML document

Method 1: In-line (the attribute style): by using the HTML attribute style.

Method 2: Internal (the tag style)

Another way is to include the CSS codes using the HTML tag <style>. For example like this:

```
<html>
<head>
<title>Example</title>
<style type="text/css">
body {background-color: #FF0000;}
</style>
</head>
<body>
This is a red page
</body>
</html>
```

Method 3: External (link to a style sheet)

The recommended method is to link to a so-called external style sheet.

An external style sheet is simply a text file with the extension **.css**. Like any other file, you can place the style sheet on your web server or hard disk.

The trick is to create a link from the HTML document (default.htm) to the style sheet (style.css). Such link can be created with one line of HTML code:

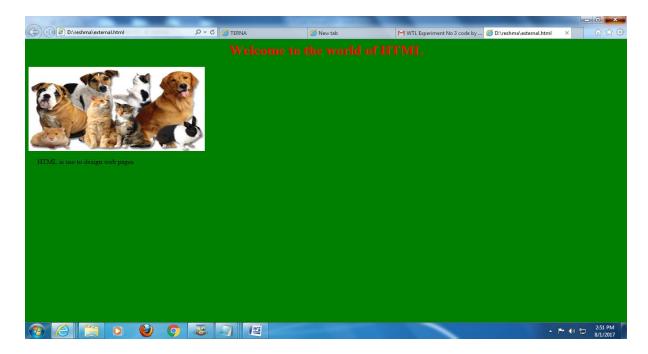
```
<link rel="stylesheet" type="text/css" href="style/style.css" />
```

The line of code must be inserted in the header section of the HTML code i.e. between the <head> and </head> tags. Like this:

This link tells the browser that it should use the layout from the CSS file when displaying the HTML file.

Example: Web page using CSS

Output



Source Code:

Inlinecss.html

```
<html>
<body style="background-color:green;color:white">
```

.....

</body>

Internalcss.html

```
<html>
<head>
<style type="text/css">
body
{
background-color:green;
color:white
}
h1
{
.......
}
img
{
......
```

```
p
</style>
</head>
<body>
<h1>Welcome to the world of HTML</h1>
<imq src="pic1.jpq">
 HTML is use to design web pages
</body>
</html>
External css.html
<html>
<head>
type="text/css" rel="stylesheet" href="style1.css"/>
</head>
<body>
<h1>Welcome to the world of HTML</h1>
<imq src="pic1.jpq">
 HTML is use to design web pages
</body>
</html>
Style1.css
body
background-color:green;
text:white
h1
.....
img
.....
р
```

PART B

(PART B: TO BE COMPLETED BY STUDENTS)

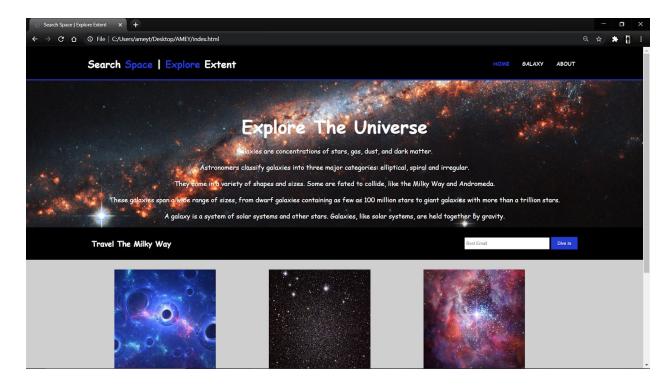
(Students must submit the soft copy as per following segments within two hours of the practical. The soft copy must be uploaded on the Blackboard or emailed to the concerned lab in charge faculties at the end of the practical in case the there is no Black board access available)

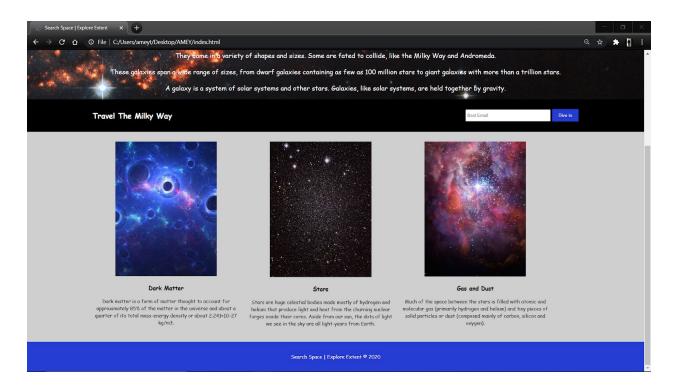
Roll No: 50	Name: Amey Thakur
Class: TE-Comps B	Batch: B3
Date of Experiment: 31/07/2020	Date of Submission: 31/07/2020
Grade:	

B.1. Web page Snapshot:

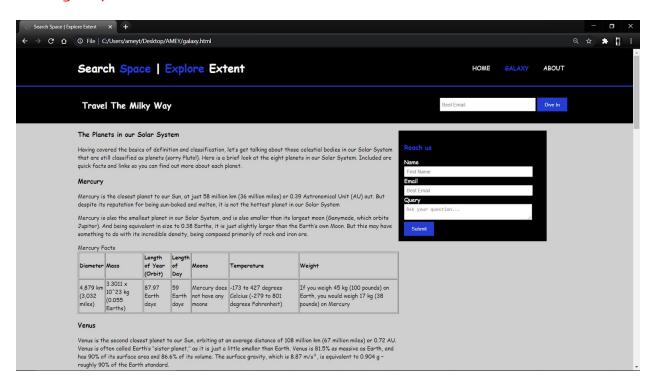
(add snapshot of web page created) (Add 3 snapshot of web page created using internal, inline and external style sheet.)

index.html

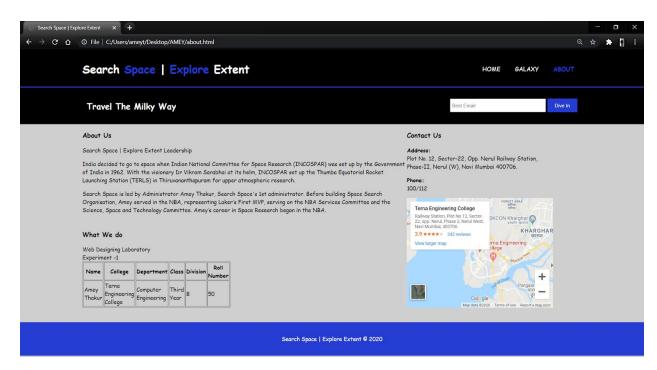




galaxy.html



about.html



B.2. Web page source code:

(Add source code of web page)

style.css

```
body{
  font: 15px/1.5 cursive;
  padding:0;
  margin:0;
  background-color:#cfcfcf;
}
ul{
  margin:0;
  padding:0;
}
```

```
.container{
width:80%;
 margin:auto;
 overflow:hidden;
}
.button_1{
height:38px;
 background:#263dd4;
 border:0;
 padding-left: 20px;
 padding-right:20px;
color:#ffffff;
.dark{
 padding:15px;
 background:#000000;
color:#ffffff;
 margin-top:10px;
margin-bottom:10px;
}
header{
background:#000000;
color:#ffffff;
 padding-top:30px;
 min-height:70px;
```

```
border-bottom:#263dd4 3px solid;
}
header a{
color:#ffffff;
text-decoration:none;
text-transform: uppercase;
font-size:16px;
}
header li{
float:left;
display: inline;
padding: 0 20px 0 20px;
}
header #branding{
float:left;
header #branding h1{
margin:0;
}
header nav{
float:right;
margin-top:10px;
}
header .highlight, header .current a{
color: #263dd4;
```

```
font-weight: bold;
}
header a:hover{
color:#263dd4:
font-weight:bold;
#showcase{
 min-height:400px;
 background:url('../img/showcase.jpg')no-repeat 0 -400px;
text-align:center;
color:#ffffff;
#showcase h1{
margin-top:100px;
font-size:55px;
 margin-bottom:10px;
#showcase p{
font-size:20px;
/* Newsletter */
#newsletter{
 padding:15px;
color:#ffffff;
 background:#000000
```

```
#newsletter h1{
float:left;
#newsletter form {
float:right;
margin-top:15px;
}
#newsletter input[type="email"]{
padding:4px;
height:25px;
width:250px;
}
#boxes{
margin-top:20px;
#boxes.box{
float:left;
text-align: center;
width:30%;
padding:10px;
aside#sidebar{
float:left;
width:30%;
```

```
margin-top:10px;
}
aside#sidebar .quote input, aside#sidebar .quote textarea{
width:90%;
 padding:5px;
article#main-col{
float:left;
width:65%;
ul#services li{
list-style: none;
 padding:20px;
 border: #ccccc solid 1px;
 margin-bottom:5px;
 background:#e6e6e6;
}
footer{
 padding:20px;
 margin-top:20px;
color:#ffffff;
 background-color:#263dd4;
text-align: center;
```

index.html

```
<html>
 <head> <title>Search Space | Explore Extent</title>
 <link rel="stylesheet" href="./css/style.css">
 </head> <body> <header>
  <div class="container"> <div id="branding">
<h1>Search <span class="highlight">Space</span> | <span class="highlight">Explore</span>
Extent</h1> </div> <nav> 
     <a href="index.html">Home</a>
     <a href="galaxy.html">Galaxy</a>
     <a href="about.html">About</a>
     </nav> </div> </header>
 <section id="showcase"> <div class="container">
   <h1>Explore The Universe</h1>
   Galaxies are concentrations of stars, gas, dust, and dark matter.
        Astronomers classify galaxies into three major categories: elliptical, spiral and
irregular.
    They come in a variety of shapes and sizes. Some are fated to collide, like the Milky Way
and Andromeda.
     These galaxies span a wide range of sizes, from dwarf galaxies containing as few as
100 million stars to giant galaxies with more than a trillion stars.
    A galaxy is a system of solar systems and other stars. Galaxies, like solar systems, are
held together by gravity.
   </div> </section>
 <section id="newsletter"> <div class="container"> <h1>Travel The Milky Way</h1>
  <form>
   <input type="email" placeholder="Best Email">
```

```
<button type="submit" class="button_1">Dive In</button>
   </form> </div></section>
<section id="hoxes">
   <div class="container"> <div class="box">
    <imq src="./imq/Dark_matter.jpg">
    <h3>Dark Matter</h3>
       Dark matter is a form of matter thought to account for approximately 85% of the
matter in the universe and about a quarter of its total mass-energy density or about
2.241×10-27 kg/m3. </div>
   <div class="box"> <imq src="./imq/Stars.jpg"> <h3>Stars</h3>
       Stars are huge celestial bodies made mostly of hydrogen and helium that produce
light and heat from the churning nuclear forges inside their cores. Aside from our sun, the dots
of light we see in the sky are all light-years from Earth.
   <div class="box"> <imq src="./imq/Gas_and_Dust.jpg">
    <h3>Gas and Dust</h3>
     Much of the space between the stars is filled with atomic and molecular gas (primarily)
hydrogen and helium) and tiny pieces of solid particles or dust (composed mainly of carbon,
silicon and oxygen).  </div> </div> </section>
<footer> Search Space | Explore Extent @ 2020 </footer>
</body>
</html>
   galaxy.html
<html>
 <head> <title>Search Space | Explore Extent</title>
  <link rel="stylesheet" href="./css/style.css">
 </head> <body><header>
   <div class="container"> <div id="branding">
```

<h1>Search Space | Explore Extent</h1></div><nav>

Having covered the basics of definition and classification, let's get talking about those celestial bodies in our Solar System that are still classified as planets (sorry Pluto!). Here is a brief look at the eight planets in our Solar System. Included are quick facts and links so you can find out more about each planet. <h3>Mercury</h3>

Mercury is the closest planet to our Sun, at just 58 million km (36 million miles) or 0.39 Astronomical Unit (AU) out. But despite its reputation for being sun-baked and molten, it is not the hottest planet in our Solar System

Mercury is also the smallest planet in our Solar System, and is also smaller than its largest moon (Ganymede, which orbits Jupiter). And being equivalent in size to 0.38 Earths, it is just slightly larger than the Earth's own Moon. But this may have something to do with its incredible density, being composed primarily of rock and iron ore.

```
  Diameter
  Mass
```

```
Length of Year (Orbit)
Length of Day
Length of
```

lf you weigh 45 kg (100 pounds) on Earth, you would weigh 17 kg (38 pounds) on Mercury <h3>Venus</h3>

Venus is the second closest planet to our Sun, orbiting at an average distance of 108 million km (67 million miles) or 0.72 AU. Venus is often called Earth's "sister planet," as it is just a little smaller than Earth. Venus is 81.5% as massive as Earth, and has 90% of its surface area and 86.6% of its volume. The surface gravity, which is 8.87 m/s², is equivalent to 0.904 q - roughly 90% of the Earth standard.

And due to its thick atmosphere and proximity to the Sun, it is the Solar Systems hottest planet, with temperatures reaching up to a scorching 735 K (462 °C). To put that in perspective, that's over four and a half times the amount of heat needed to evaporate water, and about twice as much needed to turn tin into molten metal (231.9 °C)!

```
Diameter
Mass
Length of Year (Orbit)
```

```
Length of Day
Moons
Moons
Temperature
Temperature</th
```

Our home, and the only planet in our Solar System (that we know of) that actively supports life. Our planet is the third from our Sun, orbiting it at an average distance of 150 million km (93 million miles) from the Sun, or one AU. Given the fact that Earth is where we originated, and has all the necessary prerequisites for supporting life, it should come as no surprise that it is the metric on which all other planets are judged.

or volume, the units are either expressed in terms of Earth's own values (with Earth having a value of 1) or in terms of equivalencies – i.e. 0.89 times the size of Earth.

```
Diameter
Mass
Length of Year (Orbit)
Length of Day
Moons
```

Mars is the fourth planet from the sun at a distance of about 228 million km (142 million miles) or 1.52 AU. It is also known as "the Red Planet" because of its reddish hue, which is due to the prevalence of iron oxide on its surface. In many ways, Mars is similar to Earth, which can be seen from its similar rotational period and tilt, which in turn produce seasonal cycles that are comparable to our own.

The same holds true for surface features. Like Earth, Mars has many familiar surface features, which include volcanoes, valleys, deserts, and polar ice caps. But beyond these, Mars and Earth have little in common. The Martian atmosphere is too thin and the planet too far from our Sun to sustain warm temperatures, which average 210 K (-63 °C) and fluctuate considerably.

```
    Diameter
    Mass
    Length of Year (Orbit)
    Length of Day
    Moons
    Moons</
```

```
Temperature
       Weight
       Mars Facts

       6,787 km, (4,217 miles)
       6.4171 x 10^23 kg (0.107 Earths)
       687 Earth days
       24 hours 37 minutes
       Mars has two small moons, Phobos and Deimos
Average is about -55 C (-67 F), with ranges of -153 to +20 °C (-225 to +70 °F)
```

If you weigh 45 kg (100 pounds) on Earth, you would weigh 17 kg (38 pounds) on Mars <h3>Jupiter</h3>

Jupiter is the fifth planet from the Sun, at a distance of about 778 million km (484 million miles) or 5.2 AU. Jupiter is also the most massive planet in our Solar System, being 317 times the mass of Earth, and two and half times larger than all the other planets combined. It is a gas giant, meaning that it is primarily composed of hydrogen and helium, with swirling clouds and other trace gases.

Jupiter's atmosphere is the most intense in the Solar System. In fact, the combination of incredibly high pressure and coriolis forces produces the most violent storms ever witnessed. Wind speeds of 100 m/s (360 km/h) are common and can reach as high as 620 km/h (385 mph). In addition, Jupiter experiences auroras that are both more intense than Earth's, and which never stop.

```
Diameter
Mass
Length of Year (Orbit)
Length of Day
Moons
Temperature
```

```
Weight
Jupiter Facts

        428,400 km (88,730 miles)

        >td>428,400 km (88,730 miles)

        1.8986 × 10^27 kg (317.8 Earths)

        11.9 Earth years

        2td>9.8 Earth hours

        2td>Jupiter now has a total of 79 identified moons

        2td>-148 C, (-234 F)
```

```
29.5 Earth years
10.7 Earth hours
```

Saturn has 53 known moons with an additional 9 moons awaiting confirmation

```
-178 C (-288 F)
```

If you weigh 45 kg (100 pounds) on Earth, you would weigh about 48 kg (107 pounds) on Saturn
48 kg (107 pounds) on Saturn

/table>

Vranus is the seventh planet from the sun at a distance of about 2.9 billion km (1.8 billion miles) or 19.19 AU. Though it is classified as a "gas giant", it is often referred to as an "ice giant" as well, owing to the presence of ammonia, methane, water and hydrocarbons in ice form. The presence of methane ice is also what gives it its bluish appearance.

Uranus is also the coldest planet in our Solar System, making the term "ice" seem very appropriate! What's more, its system of moons experiences a very odd seasonal cycle, owing to the fact that they orbit Neptune's equator, and Neptune orbits with its north pole facing directly towards the Sun. This causes all of its moons to experience 42 year periods of day and night.

```
    Diameter

    Adass

    Length of Year (Orbit)

    Length of Day

    Moons

    Temperature

    Weight

    Vranus Facts

    51,120 km (31,763 miles)

    8681 × 10°25 kg (14.5 times that of Earth)

    84 Earth years
```

```
18 Earth hours
Uranus has 27 moons
27 moons
```

If you weigh 45 kg (100 pounds) on Earth, you would weigh 41 kg (91 pounds) on Uranus

Neptune is the eighth and farthest planet from the Sun, at a distance of about 4.5 billion km (2.8 billion miles) or 30.07 AU. Like Jupiter, Saturn and Uranus, it is technically a gas giant, though it is more properly classified as an "ice giant" with Uranus.

Due to its extreme distance from our Sun, Neptune cannot be seen with the naked eye, and only one mission has ever flown close enough to get detailed images of it. Nevertheless, what we know about it indicates that it is similar in many respects to Uranus, consisting of gases, ices, methane ice (which gives its color), and has a series of moons and faint rings.

```
    Diameter
    Diameter
    Amass
    Amass
```

Neptune has 13 confirmed moons and 1 more awaiting official confirmation

```
-214 C (-353 F)
   If you weigh 45 kg (100 pounds) on Earth, you would weigh 52 kg (114 pounds) on
Neptune     </article>
    <aside id="sidebar"> <div class="dark">
     <h1 style="color:#263dd4;"><span class="highlight">Reach us</span></h1>
     <form class="quote">
     <div>
      <label>Name</label><br>
      <input type="text" placeholder="First Name">
     </div> <div>
      <label>Email</label><br>
      <input type="email" placeholder="Best Email">
     </div> <div>
      <label>Query</label><br>
      <textarea placeholder="Ask your question..."></textarea>
     </div> <button class="button_1" type="submit">Submit</button>
   </form> </div> </aside> </div> </section>
 <footer> Search Space | Explore Extent @ 2020 </footer>
</body>
</html>

    about.html

<html>
 <head><title>Search Space | Explore Extent</title>
 <link rel="stylesheet" href="./css/style.css">
</head> <body><header>
```

India decided to go to space when Indian National Committee for Space Research (INCOSPAR) was set up by the Government of India in 1962. With the visionary Dr Vikram Sarabhai at its helm, INCOSPAR set up the Thumba Equatorial Rocket Launching Station (TERLS) in Thiruvananthapuram for upper atmospheric research.

Search Space is led by Administrator Amey Thakur, Search Space's 1st administrator.Before building the Space Search Organisation, Amey served in the NBA, representing Laker'sFirst MVP, serving on the NBA Services Committee and the Science, Space and TechnologyCommittee. Amey's career in Space Research began in the NBA.

```
<aside id="sidebar"> <h3>What We do</h3>

  Name
  College
  Department
```

```
Class
     Division
     Roll Number
     Web Designing Laboratory Experiment -1
     Amey Thakur
     Terna Engineering College
     Computer Engineering
     Third Year
     At/>B
     50
        </aside> </article>
   <section id="map"> <div class="qmap">
       <h1 class="page-title">Contact Us</h1>
     <strong>Address:</strong>
       <br>Plot No. 12, Sector-22, Opp. Nerul Railway Station,
       <br>Phase-II, Nerul (W), Navi Mumbai 400706. 
   <strong>Phone:</strong><br>100/112 
                                                                   <iframe
src="https://www.google.com/maps/embed?pb=!1m14!1m8!1m3!1d60348.39629541313!2d
73.016516!3d19.029644!3m2!1i1024!2i768!4f13.1!3m3!1m2!1s0x0%3A0x9459161291e7ded
5!2sTerna%20Engineering%20College!5e0!3m2!1sen!2sin!4v1595193146892!5m2!1sen!2sin"
                                                             allowfullscreen=""
width="400"
             height="300"
                           frameborder="0"
                                            style="border:0;"
aria-hidden="false" tabindex="0"></iframe>
  </div> </section> </div> </section>
 <footer> Search Space | Explore Extent @ 2020 </footer>
</body>
</html>
```

B.3. Question of Curiosity:

1. Explain the advantages of CSS.

Ans:

Advantages of CSS:

- 1. **CSS saves time** You can write CSS once and then reuse the same sheet in multiple HTML pages. You can define a style for each HTML element and apply it to as many Web pages as you want.
- 2. **Easy maintenance** To make a global change, simply change the style, and all elements in all the web pages will be updated automatically.
- 3. **Global web standards** Now HTML attributes are being deprecated and it is being recommended to use CSS. So it's a good idea to start using CSS in all the HTML pages to make them compatible with future browsers.
- 4. **Platform Independence** The Script offers consistent platform independence and can support latest browsers as well.
- 2. List out any 10 css properties in order to design HTML web pages.

Ans:

- 1. Clearfix
- 2. Custom Text Selection
- 3. Easing Variables
- 4. Custom Variables
- 5. Disable Selection
- 6. Loading Spinner
- 7. Gradient Text
- 8. Overflow Scroll Gradient
- 9. Reset All Styles
- 10. Sibling Fade

B.4. Conclusion:

- Cascading Style Sheets is a language used to describe how your page should look.
 Generally, you put CSS in separate files from your HTML, though you can also put it in the <head> element.
- The advantage of having your CSS in a separate file is that all of your pages can use that file to effortlessly look the same (even if you make changes to it).
- You can also attach multiple CSS files to one webpage (for example, a general file that is shared by all your pages, and a file that applies only to that one page.)
- CSS files are basically just long lists of rules. For each rule you first specify what it applies to, and then what the rule does.