

## CASE STUDY 1

**AIM:** To demonstrate HTML Graphics.

### OBJECTIVES:

To draw a

- Line
- Circle
- Text
- Text in different formats
- Circular gradient
- Linear gradient

**OUTCOME:** Develop static web pages using HTML.

### PROGRAM CODE:

#### Drawing a line

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

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Line</title>
</head>

<body>

  <!-- Defining our canvas -->
  <canvas id="Ali's Canvas", width="1420", height="700", style="border:
1px solid #ff0000;"> </canvas>
```

```

<!-- Drawing a line -->
<script>
    var c = document.getElementById("Ali's Canvas")
    var ctx = c.getContext("2d")
    ctx.moveTo(0,0)
    ctx.lineTo(1420,700)
    ctx.lineWidth = "10"
    ctx.strokeStyle = "green"
    ctx.stroke();
</script>

<!-- Drawing another line -->
<script>
    var c = document.getElementById("Ali's Canvas")
    var ctx = c.getContext("2d")
    ctx.moveTo(1420,0)
    ctx.lineTo(0,700)
    ctx.lineWidth = "10"
    ctx.strokeStyle = "green"
    ctx.stroke();
</script>
</body>
</html>

```

## Drawing a circle

```

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Circle</title>
</head>

<body>

```

```

    <!-- Defining our canvas -->
    <canvas id="Ali's Canvas", width="1420", height="700", style="border:
1px solid #ff0000;"> </canvas>

    <!-- Drawing a circle -->
    <script>
    var c = document.getElementById("Ali's Canvas")
    var ctx = c.getContext("2d")
    ctx.beginPath();
    ctx.arc(710, 350, 100, 0, 2 * Math.PI); // parameters: x coordinate, y
coordinate, radius, angle (360 for circle)
    ctx.lineWidth = "10"
    ctx.strokeStyle = "green"
    ctx.fillStyle = "red";
    ctx.fill();
    ctx.stroke();
</script>
</body>
</html>

```

## Text

```

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Text</title>
</head>

<body>

    <!-- Defining our canvas -->
    <canvas id="Ali's Canvas", width="1420", height="700", style="border:
1px solid #ff0000;"> </canvas>

```

```
<!--Experimenting with different texts-->
<script>

var c = document.getElementById("Ali's Canvas")
var ctx = c.getContext("2d")

ctx.font = "50px Arial";
ctx.fillStyle = "purple";
ctx.fillText("This is Arial text",10,80); // parameters: (text, x
coordinate, y coordinate)

ctx.font = "50px Times New Roman";
ctx.fillStyle = "red";
ctx.fillText("This is Times New Roman text",10,130);

ctx.font = "50px Verdana";
ctx.strokeStyle = "green";
ctx.strokeText("This is Outlined text in Verdana",10,180);

</script>

</body>
</html>
```

## Linear gradient

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

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Linear Gradient</title>
</head>

<body>
```

```

<!-- Defining our canvas -->
<canvas id="Ali's Canvas", width="1420", height="700", style="border:
1px solid #ff0000;"> </canvas>

<!--Linear Gradient-->
<script>

var c = document.getElementById("Ali's Canvas")
var ctx = c.getContext("2d")

// Create linear gradient
const grad=ctx.createLinearGradient(0,0, 1420,700); // parameters:
(x1,y1,x2,y2)
grad.addColorStop(0, "red");
grad.addColorStop(0.5, "yellow");
grad.addColorStop(1, "green");

// Fill rectangle with gradient
ctx.fillStyle = grad;
ctx.fillRect(0,0, 1420,700);

</script>

</body>
</html>

```

## Circular gradient

```

<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Circular Gradient</title>
</head>

```

```

<body>

    <!-- Defining our canvas -->
    <canvas id="Ali's Canvas", width="1420", height="700", style="border:
1px solid #ff0000;"> </canvas>

    <!--Circular Gradient-->
    <script>

var c = document.getElementById("Ali's Canvas")
var ctx = c.getContext("2d")

// Create gradient
// parameters: (x0,y0,r0,x1,y1,r1)
// Here, x0,y0 = center of small circle
// x1, y1 = center of big circle
// r0 = radius of small circle
// r1 = radius of big circle
const grad=ctx.createRadialGradient(710,350,200,710,350,600);
grad.addColorStop(0,"orange");
grad.addColorStop(0.5,"blue")
grad.addColorStop(1,"green");

// Fill rectangle with gradient
ctx.fillStyle = grad;
ctx.fillRect(0,0, 1420,700);

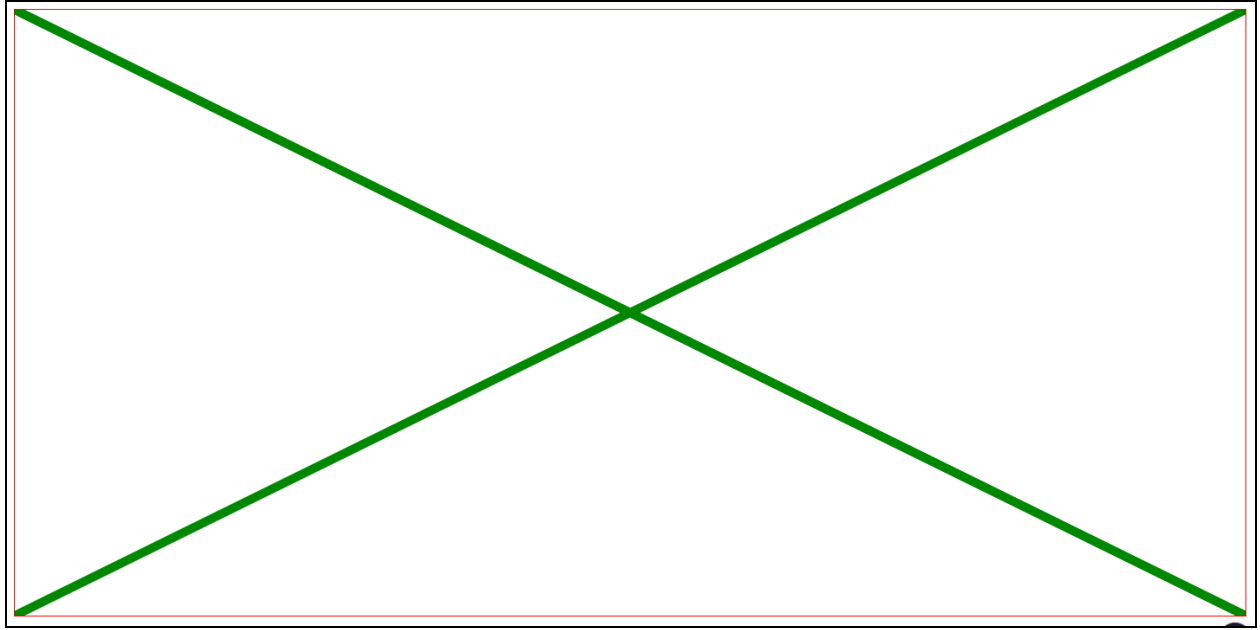
    </script>

</body>
</html>

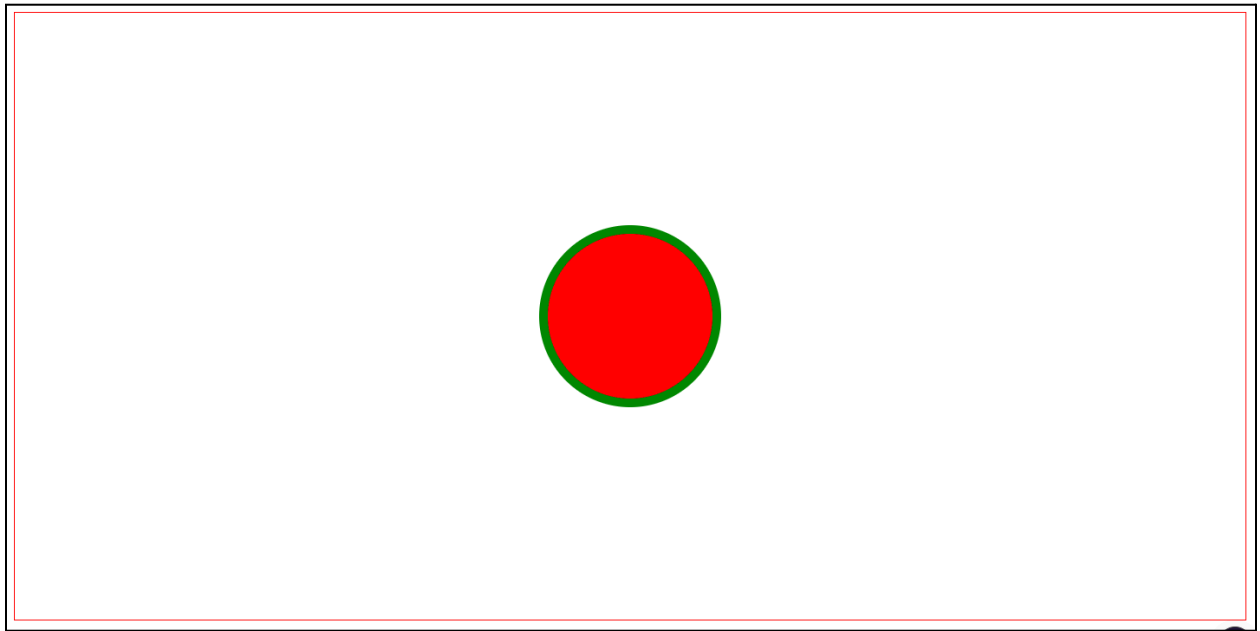
```

**OUTPUT:**

**Drawing a line**



**Drawing a circle**



**Text**

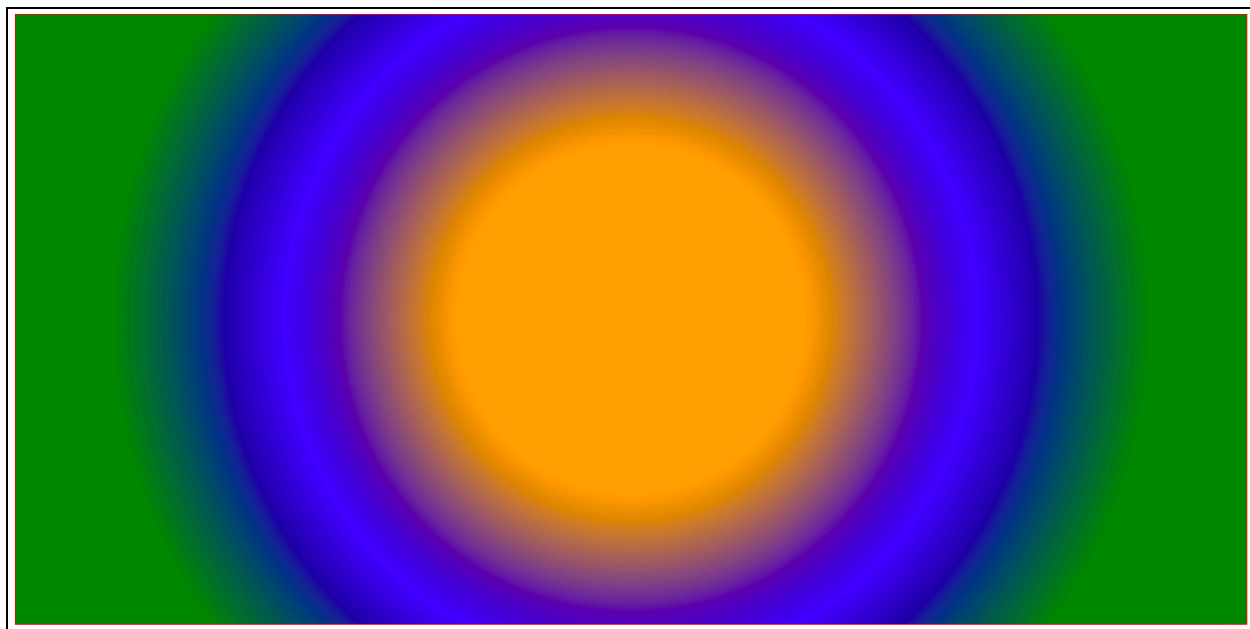
This is Arial text  
This is Times New Roman text  
This is Outlined text in Verdana

**Linear gradient**



**Circular gradient**





## CASE STUDY 2

**AIM:** To demonstrate HTML SVG.

### OBJECTIVES:

To demonstrate

- Ellipse
- Image
- Links
- Polygon
- Star
- Textpath

**OUTCOME:** Develop static web pages using HTML.

### PROGRAM CODE:

#### Ellipse

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

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Ellipse</title>
</head>

<body>

  <!-- Defining SVG -->
  <svg height="600" width="900" xmlns="http://www.w3.org/2000/svg"
style="border: 1px solid #000000">
    <!-- Defining ellipse -->
```

```

        <ellipse rx="100" ry="150" cx="450" cy="300" style="fill:rgb(255,
0, 0); stroke:green; stroke-width:3" />

        <!-- Here, rx = x radius, ry = y radius, cx = x center, cy = y
center -->
    </svg>

</body>
</html>

```

## Image

```

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Image</title>
</head>

<body>

    <!-- Defining SVG -->
    <svg height="500" width="500" xmlns="http://www.w3.org/2000/svg"
style="border: 1px solid #000000">

        <image height="200" width="300"
href="https://c.files.bbci.co.uk/0011/live/532132f0-bc34-11ee-a4be-4d2d0c4
4a9c0.jpg" />

    </svg>

</body>
</html>

```

## Links

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

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Links</title>
</head>

<body>

  <!-- Defining SVG -->
  <svg height="300" width="400" xmlns="http://www.w3.org/2000/svg"
style="border: 1px solid #000000">

    <a href="https://www.instagram.com/ah.hasan14/" target="_blank">
      <text x="5" y="15" fill="red">My Instagram</text>
    </a>

    <a href="https://x.com/ah14hasan" target="_blank">
      <text x="5" y="50" fill="blue">My Twitter</text>
    </a>

    <a href="https://letterboxd.com/alihasan14/" target="_blank">
      <text x="5" y="85" fill="green">My Letterboxd</text>
    </a>

  </svg>

</body>
</html>
```

## Polygon

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

```

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Polygon</title>
</head>

<body>

  <!-- Defining SVG -->
  <svg height="220" width="500" xmlns="http://www.w3.org/2000/svg"
style="border: 1px solid #000000">
    <polygon points="100,10 150,190 50,190 180,95" style="fill:rgb(255,
242, 0); stroke:purple; stroke-width:3" />
    <!-- Mention the x and y coordinates of each point of the polygon
in "points" -->
  </svg>

</body>
</html>

```

## Star

```

<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Star</title>
</head>

<body>

  <!-- Defining SVG -->
  <svg height="210" width="500" xmlns="http://www.w3.org/2000/svg"
style="border: 1px solid #000000">

```

```

        <polygon points="100,10 40,198 190,78 10,78 160,198"
style="fill:rgb(0, 119, 255); stroke:purple; stroke-width:5;" />
    </svg>

</body>
</html>

```

## Textpath

```

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>TextPath</title>
</head>

<body>

    <!-- Defining SVG -->
    <svg height="200" width="350" xmlns="http://www.w3.org/2000/svg"
style="border: 1px solid #000000">
        <path id="lineAC" d="M 30 180 q 150 -250 300 0" stroke="blue"
stroke-width="2" fill="none"/>
        <!-- d defines the path data. -->
        <!-- M used for moving the starting point to the specified x and y
-->
        <!-- q specifies the path by giving the points (-250 means it is
bell shape, otherwise bowl shape) -->
        <text style="fill:red;font-size:25px;">
            <textPath href="#lineAC" textLength="100%" startOffset="20">This
is an example of textpath.</textPath>
        </text>
    </svg>

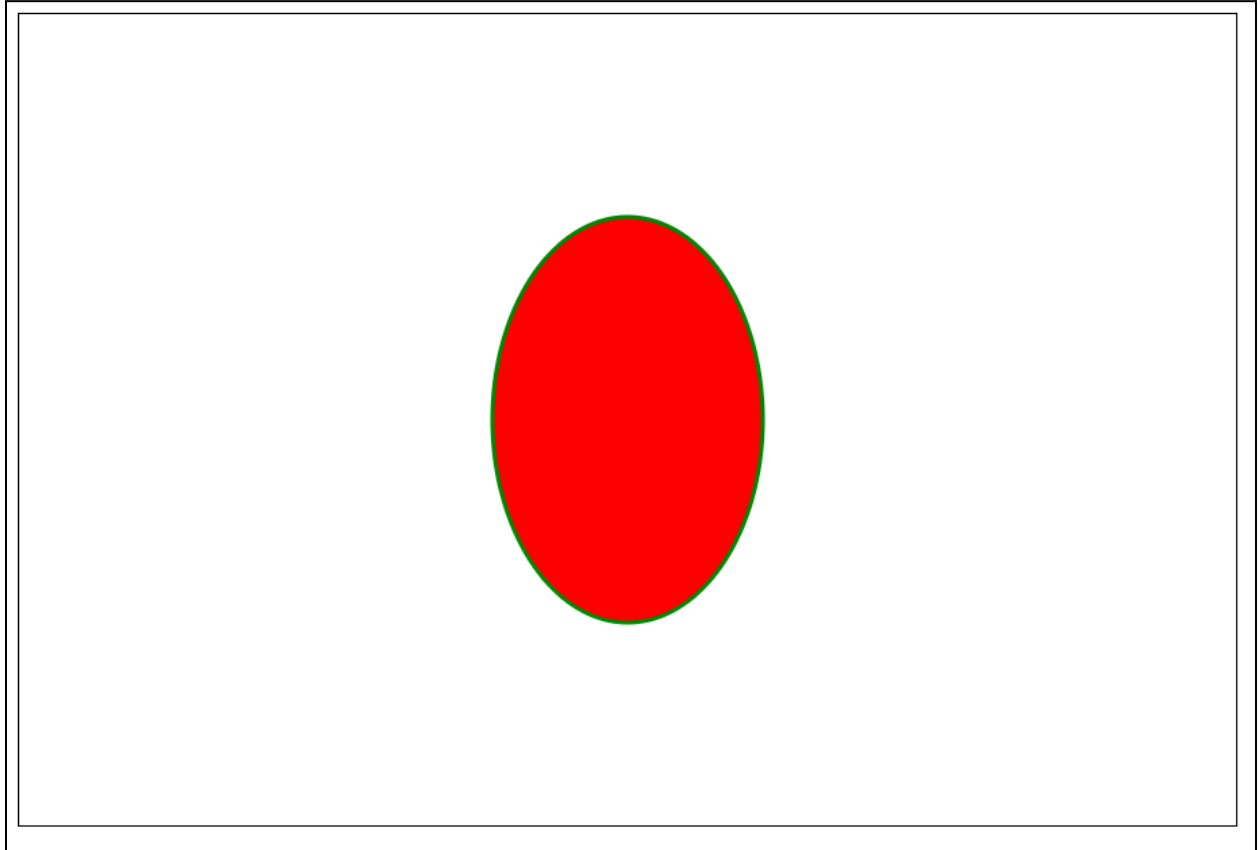
</body>

```

```
</html>
```

**OUTPUT:**

**Ellipse**



**Image**



**Links**



My Instagram

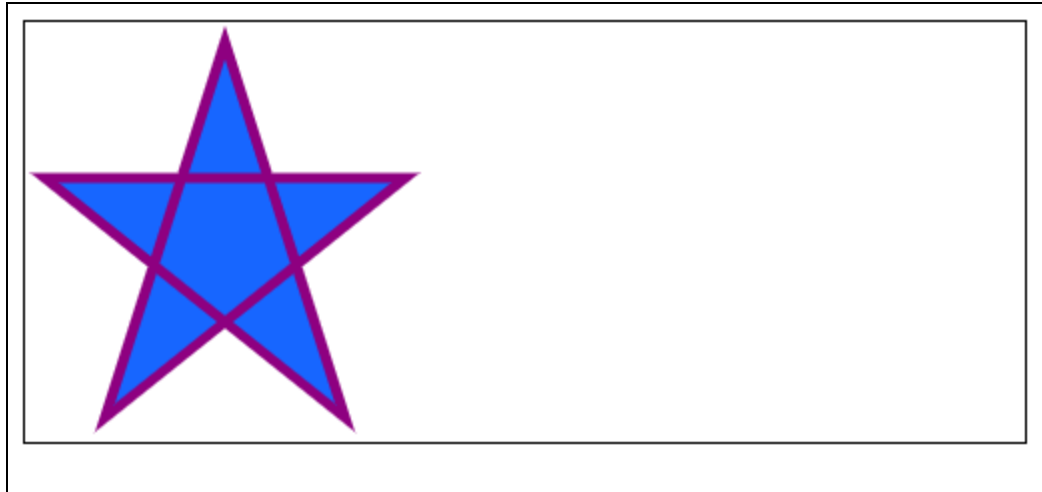
My Twitter

My Letterboxd

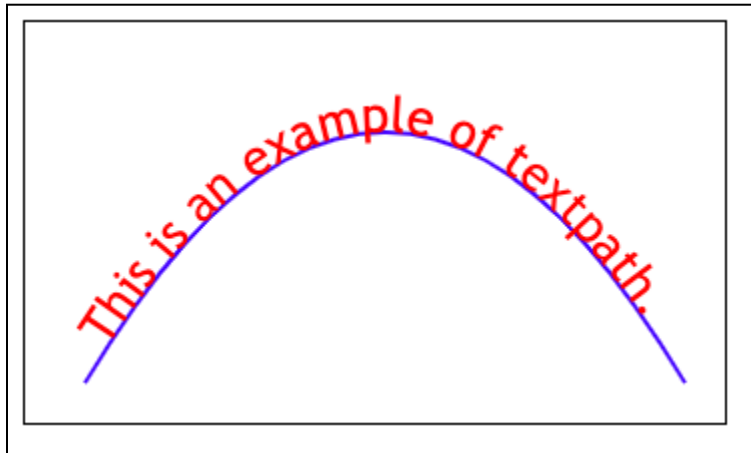
**Polygon**



**Star**



### Textpath



## CASE STUDY 3

**AIM:** To demonstrate HTML <span> and <div> tag.

### OBJECTIVES:

To demonstrate

- HTML <span> tag.
- HTML <div> tag.

**OUTCOME:** Develop static web pages using HTML.

### PROGRAM CODE:

#### <span> tag

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Span tag</title>
</head>
<body>
  <p>Ali is a <span style="font-size: larger;">student</span> of <span
style="color:rgb(255, 0, 0)">CBIT</span> Hyderabad</p>
</body>
</html>
```

#### <div> tag

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Div tag</title>
```

```

<style>
    .myDiv {
        border: 5px outset red;
        background-color: lightblue;
        text-align: center;
    }
</style>
</head>

<body>

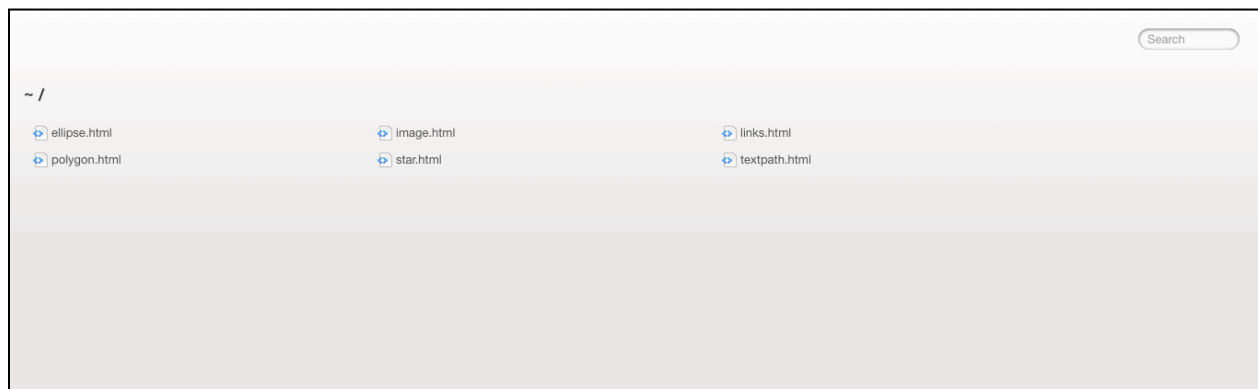
    <div class="myDiv">
        <h2>Ali Hasan Information</h2>
        <p>He is student of CBIT. His branch is Artificial Intelligence and
Machine Learning. He is in 4th year.</p>
    </div>

</body>
</html>

```

## OUTPUT:

### <span> tag



## <div> tag

