IP Experiment – 2

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TE - IT : 46

Aim:

Demonstrate CSS3 selectors, transitions, and some animation on web page.

Description:

Animation runs by itself no need to hover, css selectors are demonstrated, to see the transition you need to hover on the div box, transformation is applied with animation, color of the box changes and size of the box also increases.

< html, css >

```html
<!doctype html>
<html lang="en">
  <head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">

    <!-- Bootstrap CSS -->
    <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css"
integrity="sha384-MCw98/SFnGE8fJT3GXwEOngsV7Zt27NXFoaoApmYm81iuXoPkFOJwJ8ERdknLPMO"
crossorigin="anonymous">

  <title>Experiment 2</title>
  <style>
    /* All elements */
    *{
      padding: 0;
      margin-left: 5px;
      margin-right: 5px;
```

```css
}
/* id selector */
#para-1{
    background-color: yellow;
}
/* class selector */
.para-2{
    background-color: lightgreen;
}
/* first child pseudo class selector, 1st p child of div */
p:first-child{
    font-family: fantasy;
}
/* Attribute Selector */
a[target=_blank] {
    background-color: lightblue;
}
/* Pseudo class selector , when hovered over a tag text will become bold*/
a:hover{
    font-weight: bold;
}
/* Pseudo Element selector, first letter of all paragraphs will be bigger*/
p::first-letter {
    font-size: x-large;
}
/* Pseudo class selector odd no of child will be half width*/
p:nth-child(odd) {
    width: 50%;
    border: 2px solid black;
}
p:nth-child(even) {
    width: 100%;
    border: 2px solid black;
}
/* Combinator Selectors, All li inside ol */
ol li{
    font-size: large;
    font-family: monospace;
}
/* Animation, transformation */
@keyframes anim {
    0%    {background-color:yellow; left:0px; top:0px;transform:scale(1.1,1.1);}
```

```
      25%   {background-color:lightseagreen; left:100px;
top:100px;transform:scale(1.25,1.25);}
      50%   {background-color:lightblue; left:200px; top:200px;transform:scale(1.4,1.4);}
      75%   {background-color:lightcoral; left:300px; top:300px;transform:scale(1.55,1.55);}
      100% {background-color:lightgray; left:400px; top:400px;transform:scale(1.7,1.7);}
    }
    #animation {
      width: 100px;
      height: 100px;
      margin-bottom: 700px;
      background-color: red;
      position: relative;
      animation-name: anim;
      animation-duration: 5s;
      animation-timing-function: ease;
      animation-iteration-count: infinite;
      animation-direction: alternate;
      transition: width 1s, height 1s;
    }
    /* transition */
    #animation:hover{
      width: 500px;
      height: 50px;
    }

  </style>
  </head>
  <body>
    <div class="container-fluid">
      <h1>IP Experiment 2</h1>
      <h1 class="text-center">CSS Selectors</h1>
      <div>
        <ol>
          <li>Simple Selectors</li>
            <ul>
              <li>*{} : Universal Selector, all the elements.</li>
              <li>#para-1{} : Paragraph with given id.</li>
              <li>.para-2{} : Paragraph with given class.</li>
            </ul><br>
          <li>Combinator Selectors</li>
            <ul>
              <li>ol li{} : All li inside ol.</li>
```

```
          </ul><br>
        <li>Pseudo Class Selectors</li>
          <ul>
            <li>p:first-child(odd){} : Where p is the first child of the parent.</li>
            <li>a:hover{} : When cursor hovered over a element.</li>
            <li>p:nth-child(odd){} : All odd p child of the parent.</li>
            <li>p:nth-child(even){} : All even p child of the parent.</li>
          </ul><br>
        <li>Pseudo Element Selectors</li>
          <ul>
            <li>p::first-letter{} : First letter of every p element.</li>
          </ul><br>
        <li>Attribute Selectors</li>
          <ul>
            <li>a[target=_blank]{} : All a elements where target parameter has '_blank'
value.</li>
          </ul>
      </ol>
    </div>
    <div>
      <p id='para-1'>Paragraph 1 will have background yellow using id selector</p>
      <p class='para-2'>Paragraph 2 will have background green using class selector</p>
      <p>Paragraph 3</p>
      <p>Paragraph 4</p>
      <p>Paragraph 5</p>
      <p>Paragraph 6</p>
      <a target="_blank" href="/">Link 1 with value of target specified as '_blank'</a><br>
      <a href="/">Link 2 with no value of target specified</a>
    </div>

    <h1>Transition, Transorm, Animation</h1>
      <div id='animation' class="text-center">Animation</div>
  </div>
 </body>
</html>
```

I have demonstrated majorly used selectors from the five types of selectors as follows :

CSS Selectors

1. Simple Selectors
   - *{} : Universal Selector, all the elements.
   - #para-1{} : Paragraph with given id.
   - .para-2{} : Paragraph with given class.

2. Combinator Selectors
   - ol li{} : All li inside ol.

3. Pseudo Class Selectors
   - p:first-child(odd){} : Where p is the first child of the parent.
   - a:hover{} : When cursor hovered over a element.
   - p:nth-child(odd){} : All odd p child of the parent.
   - p:nth-child(even){} : All even p child of the parent.

4. Pseudo Element Selectors
   - p::first-letter{} : First letter of every p element.

5. Attribute Selectors
   - a[target=_blank]{} : All a elements where target parameter has '_blank' value.

Paragraph 1 will have background yellow using id selector

Paragraph 2 will have background green using class selector

Paragraph 3

Paragraph 4

Paragraph 5

Paragraph 6

Link 1 with value of target specified as '_blank'
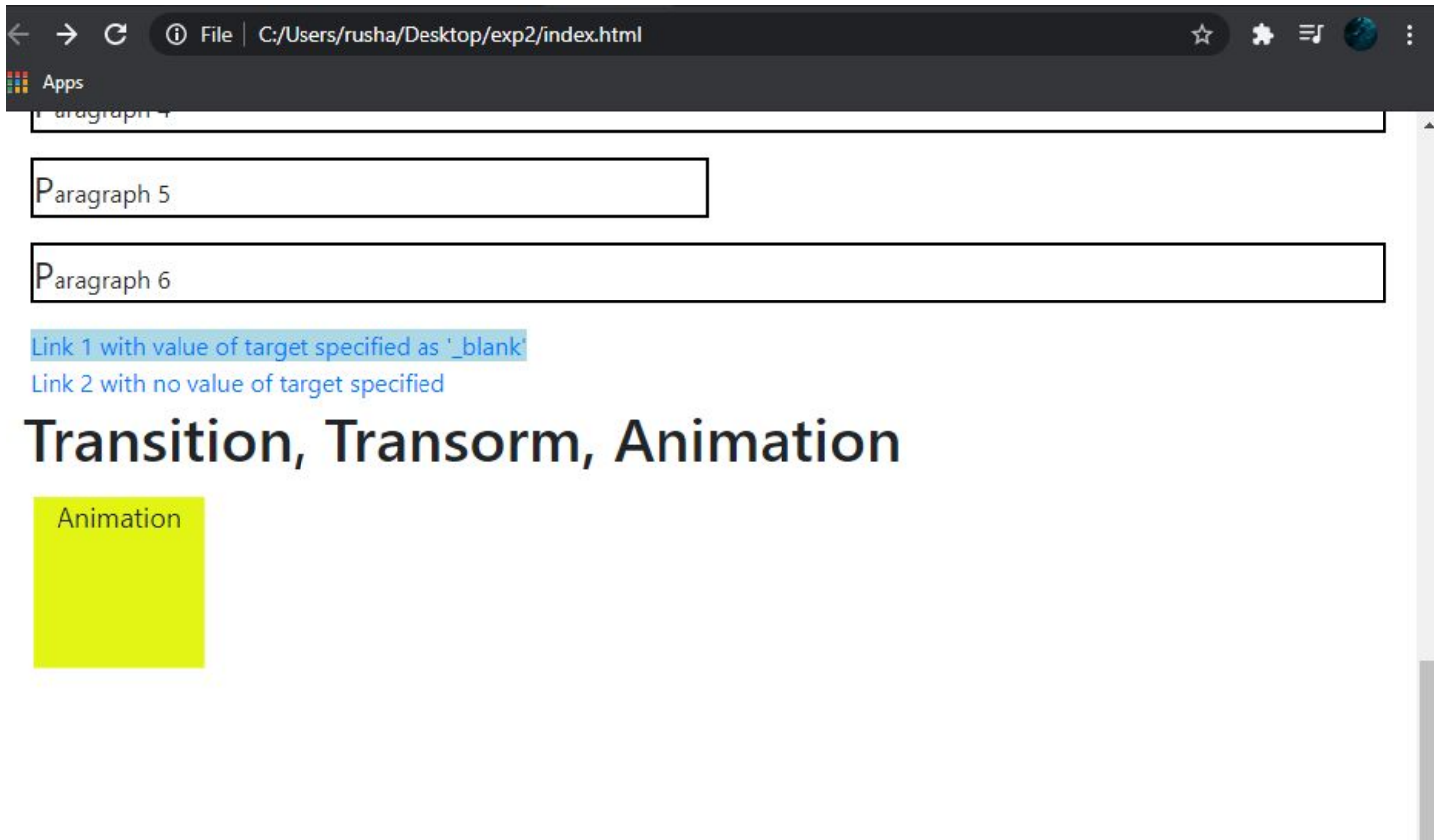Link 2 with no value of target specified

< output - Transition, Transformation, Animation >

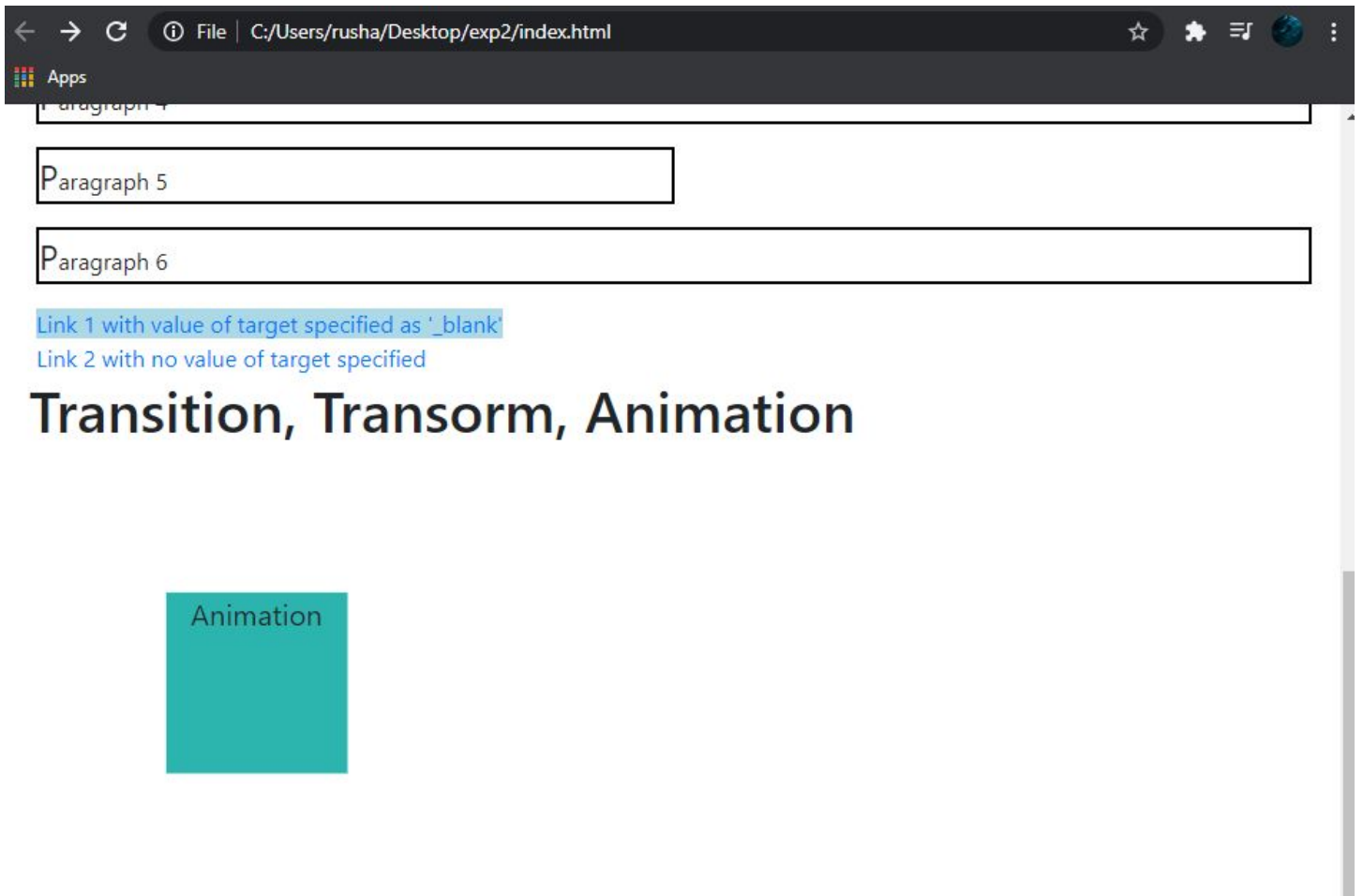*Transition : The color of the box changes from yellow, cyan, lightblue, light coral, light gray.*
Transformation : When the cursor of mouse is placed on the div element, the width of box is increased and the height is decreased.
Animation : The position of the box and the color both changes, and the size of the box increases for the duration of 5s, for infinite iterations, time function is ease, repeat is alternate.
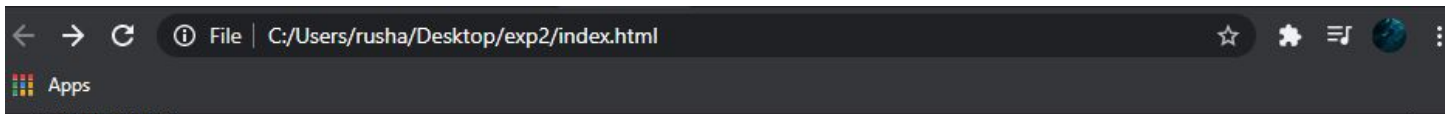
File | C:/Users/rusha/Desktop/exp2/index.html

Apps

Paragraph 4

Paragraph 5

Paragraph 6

Link 1 with value of target specified as '_blank'
Link 2 with no value of target specified

Transition, Transorm, Animation

Animation

File | C:/Users/rusha/Desktop/exp2/index.html

Apps

Paragraph 4

Paragraph 5

Paragraph 6

Link 1 with value of target specified as '_blank'
Link 2 with no value of target specified

Transition, Transorm, Animation

Animation

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▦ Apps

Paragraph 4

Paragraph 5

Paragraph 6

Link 1 with value of target specified as '_blank'
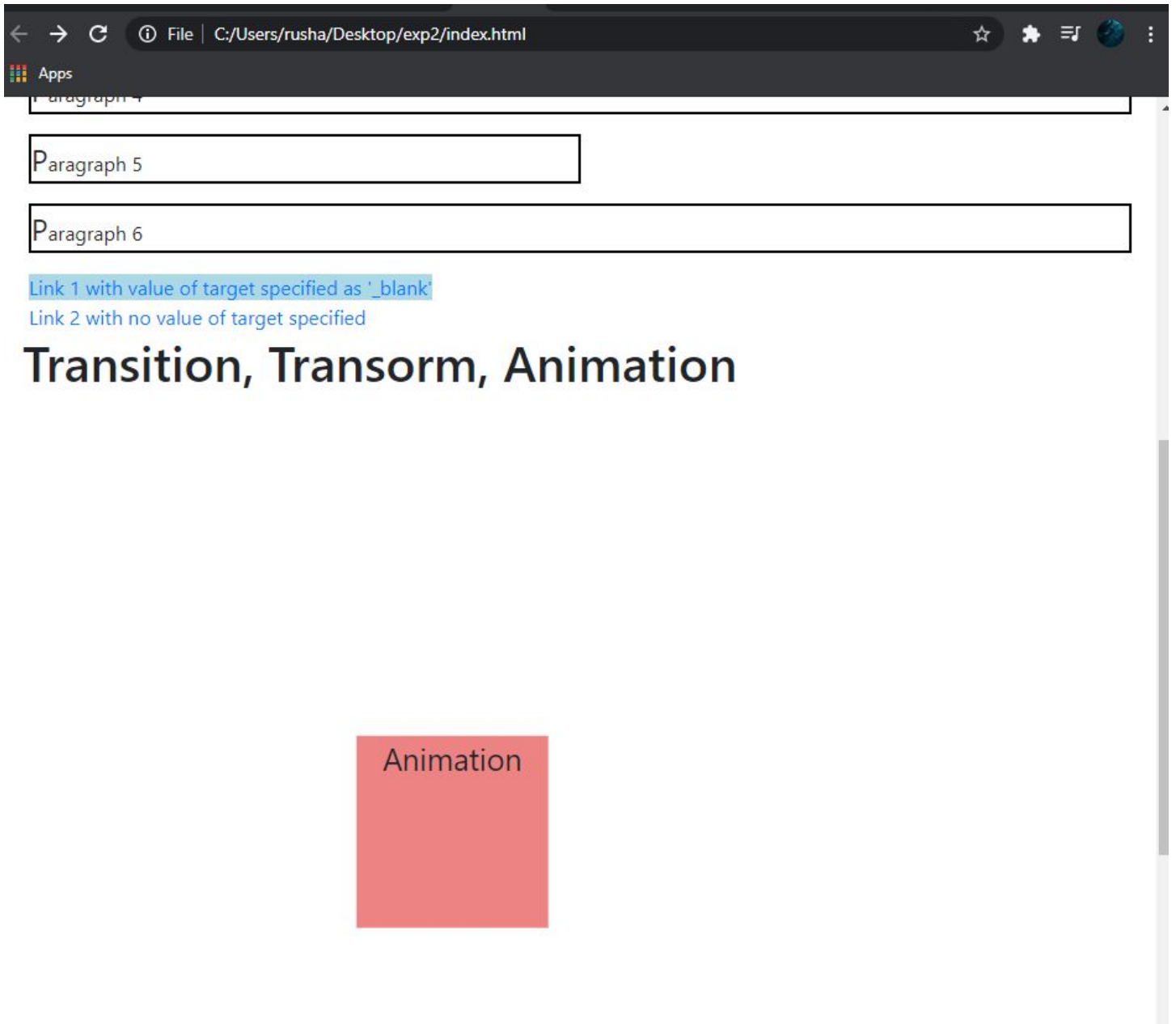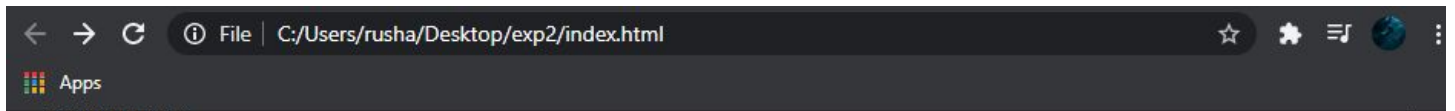Link 2 with no value of target specified

Transition, Transorm, Animation

Animation

File | C:/Users/rusha/Desktop/exp2/index.html

Apps

Paragraph 4

Paragraph 5

Paragraph 6

Link 1 with value of target specified as '_blank'
Link 2 with no value of target specified

Transition, Transorm, Animation

Animation

Paragraph 5

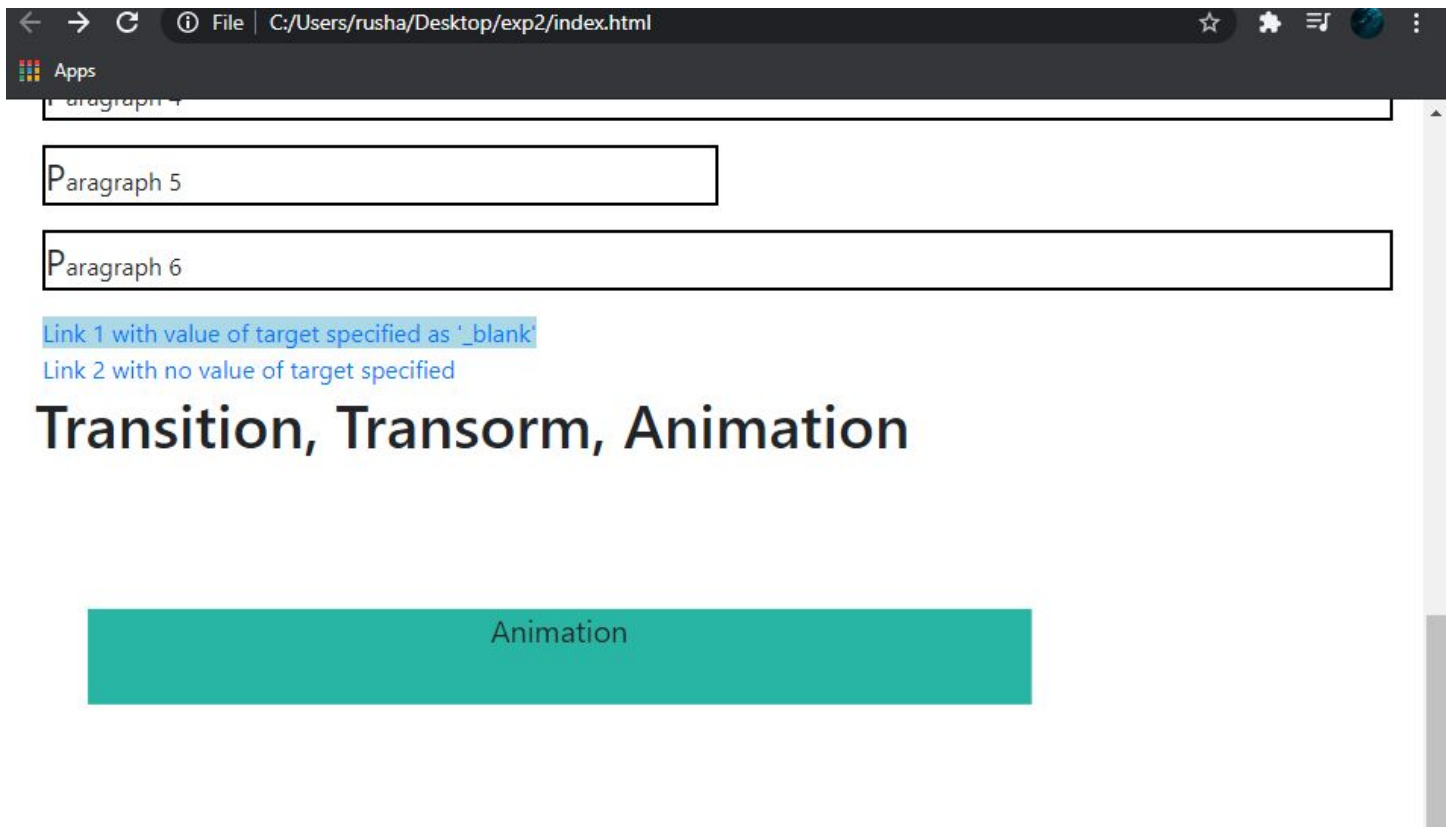Paragraph 6

Link 1 with value of target specified as '_blank'
Link 2 with no value of target specified

Transition, Transorm, Animation

Animation

Conclusion:

Hence we have successfully demonstrated CSS Selectors, Transition and animation of CSS3 on a web page.

END