PROGRAMME:6

AIM:

Create a HTML page to explain the use of various predefined functions in a string and math object in java script

CODE:

functions.html:

```
<!DOCTYPE html>
<html>
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <link rel="stylesheet" href="style.css">
   <link rel="preconnect" href="https://fonts.gstatic.com">
   <link href="https://fonts.googleapis.com/css2?family=Fascinate&display=swap"
rel="stylesheet">
   <title>Document</title>
</head>

<body>
   <div class="header" id="header">
      <div class="navbar">
         <ul>
            <li><a href="#header">Home</a></li>
            <li><a href="#docs">Documents</a></li>
            <li><a href="">Contact</a></li>
            <li><a href="#about">About</a></li>
         </ul>
      </div>
      <h1>JAVASCRIPT FUNCTIONS</h1>
   </div>
   <h2 align="center" id="docs">PREDEFINED FUNCTIONS</h2>
   <hr width="35%">
   <div class="docs"  style="margin-top:4em;">
      <div class="row">
         <div class="content">
            <h3 align="center">substr()</h3>
            <hr width="45%" color="#989898">
            <p> Returns the characters in a string beginning at the specified location through the
                  specified number of characters.</p>
         </div>
         <div class="content">
```

```
            <h3 align="center">toLowerCase()</h3>
            <hr width="45%" color="#989898">
            <p>Returns the calling string value converted to lower case.</p>
          </div>
          <div class="content">
            <h3 align="center">toUpperCase()</h3>
            <hr width="45%" color="#989898">
            <p>Returns the calling string value converted to uppercase.</p>
</div>
      </div>
      <div class="row">
        <div class="content">
          <h3 align="center">charCodeAt()</h3>
          <hr width="45%" color="#989898">
          <p> Returns a number indicating the Unicode value of the character at the given index.
              </p>
        </div>
        <div class="content">
          <h3 align="center"> charAt()</h3>
          <hr width="45%" color="#989898">
          <p>Returns a string containing the source of the Boolean object; you can use this string to
              create an
            equivalent object..</p>
        </div>
        <div class="content">
          <h3 align="center">concat()</h3>
          <hr width="45%" color="#989898">
          <p>Combines the text of two strings and returns a new string.</p>
</div>
      </div>
      <div class="row">
        <div class="content">
          <h3 align="center"> indexOf()</h3>
          <hr width="45%" color="#989898">
          <p> Returns the index within the calling String object of the first occurrence of the
              specified value,
            or -1 if not found.</p>
        </div>
        <div class="content">
          <h3 align="center">length()</h3>
          <hr width="45%" color="#989898">
          <p>Returns the length of the string.</p>
        </div>
        <div class="content">
          <h3 align="center"> replace()</h3>
```

```
            <hr width="45%" color="#989898">
            <p>Used to find a match between a regular expression and a string, and to replace the
                matched substring
              with a new substring.</p>
          </div>
        </div>
        <div class="row">
          <div class="content">
            <h3 align="center"> search()</h3>
            <hr width="45%" color="#989898">
            <p>Executes the search for a match between a regular expression and a specified string.
                </p>
          </div>
          <div class="content">
            <h3 align="center"> slice()</h3>
            <hr width="45%" color="#989898">
            <p>Extracts a section of a string and returns a new string.</p>
</div>
          <div class="content">
            <h3 align="center"> split()</h3>
            <hr width="45%" color="#989898">
            <p>Splits a String object into an array of strings by separating the string into substrings.
                </p>
          </div>
        </div>

        <h2 align="center" style="margin-top: 4em;">Java Script Math Object</h2>
        <hr width="35%">
        <div class="container" style="margin-top:4em;margin-bottom: 5em;">
          <div class="desc">
            <p>The JavaScript Math object allows you to perform mathematical tasks on
                numbers.<br><br>
              Unlike other objects, the Math object has no constructor.<br><br>
              The Math object is static.<br><br>
              All methods and properties can be used without creating a Math object first.<br><br>
                </p>
          </div>
          <div class="example">
            The syntax for any Math property is : <span
              style="border:1px solid #FBD285;padding: 4px;margin-right: 2px;">
                Math.property</span><br>
            <p style="margin-top:2.5em;"> JavaScript provides 8 mathematical constants that can be
                accessed as Math
              properties:<br><br></p>
            <pre>
```

```
            Math.E       // returns Euler's number
            Math.PI      // returns PI
            Math.SQRT2    // returns the square root of 2
            Math.SQRT1_2  // returns the square root of 1/2
            Math.LN2      // returns the natural logarithm of 2
            Math.LN10     // returns the natural logarithm of 10
            Math.LOG2E    // returns base 2 logarithm of E
            Math.LOG10E   // returns base 10 logarithm of E</pre>
</div>
      </div>
      <div class="obj" style="color:#989898;padding: 1.5em;">
         <h2 align="center">Math methodes</h2>
         <hr width="35%">
         <p align="center" style="margin-left:20px;margin-top:4em;">The syntax for any Math
                property is : <span
           style="border:1px solid #FBD285;padding: 4px;margin-right: 2px;">
                Math.methode(number)</span><br></p>
          <dl>
           <dt>
              <u>Math.round()</u>
           </dt>
<dd>
              Math.round(x) returns the nearest integer:
           </dd>
           <dt>
              <u>Math.ceil()</u>
           </dt>
<dd>
              Math.ceil(x) returns the value of x rounded up to its nearest integer:
</dd>
           <dt>
              <u> Math.floor()</u>
           </dt>
<dd>
              Math.floor(x) returns the value of x rounded down to its nearest integer:
</dd>
           <dt>
              <u>Math.pow()</u>
           </dt>
<dd>
              Math.pow(x, y) returns the value of x to the power of y:
</dd>
           <dt>
              <u>Math.sqrt()</u>
           </dt>
```

```
            <dd>
               Math.sqrt(x) returns the square root of x:
            </dd>
            <dt>
               <u>Math.abs()</u>
            </dt>
<dd>
               Math.abs(x) returns the absolute (positive) value of x:
            </dd>
         </dl>
      </div>
   </div>
   </div>
   <br><br><br><br>
   <div id="about"></div>
</body>
</html>
```

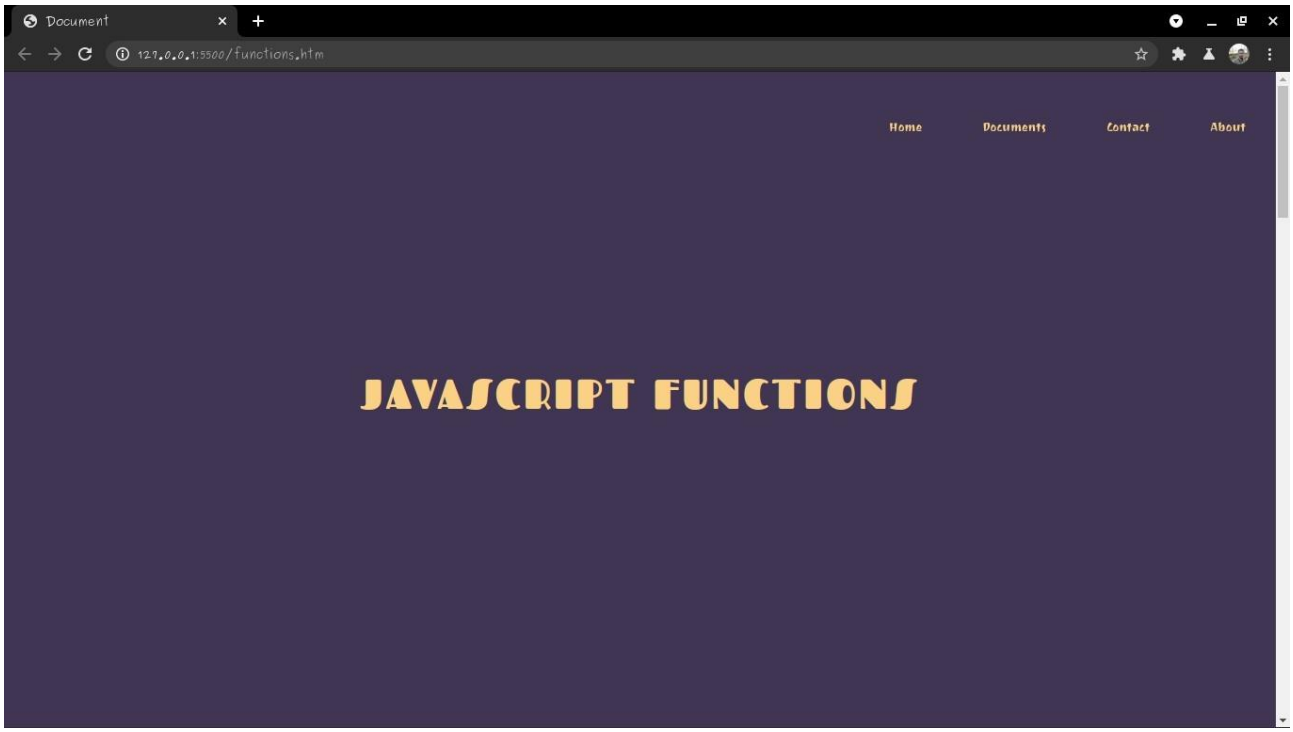
style.css:

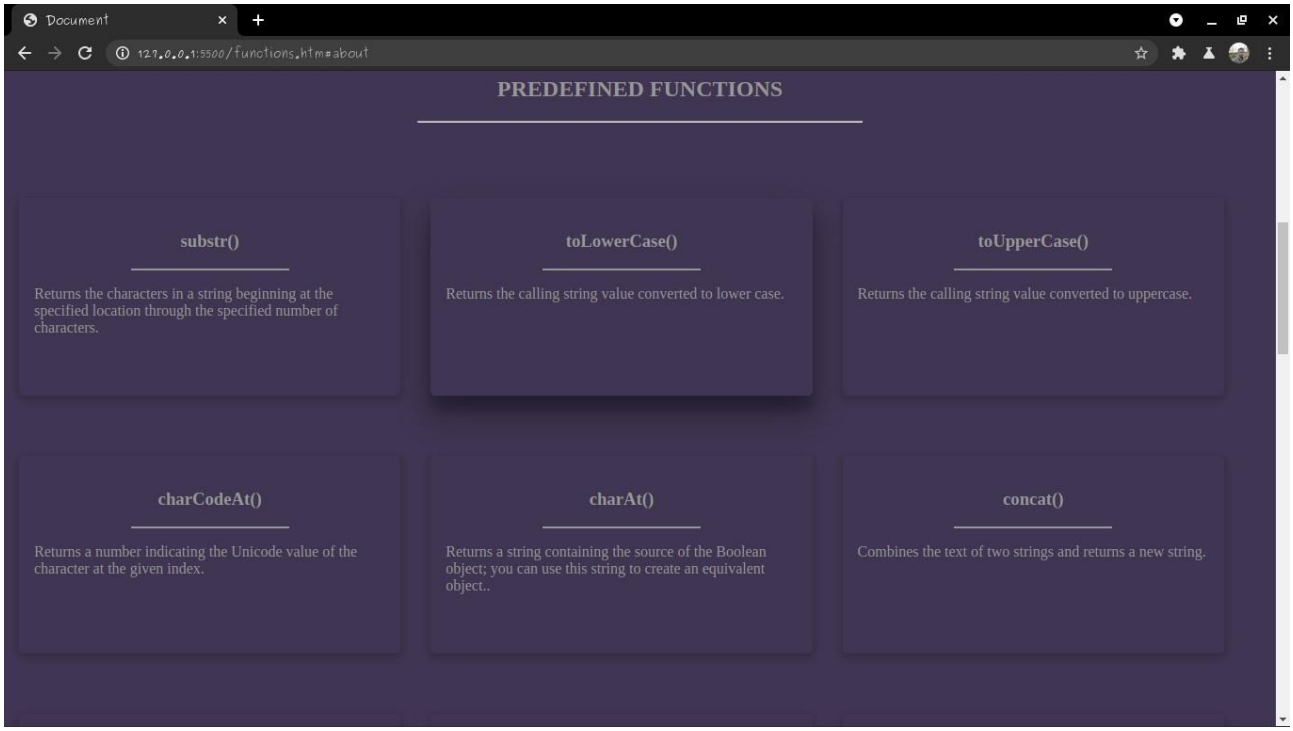
```
@import url('https://fonts.googleapis.com/css2?
family=Fascinate&family=Ravi+Prakash&display=swap'); *
{
   box-sizing: border-box; }
html{    scroll-behavior:
smooth; } body{
width:100%;    height:100vh;
padding:0px;    margin:0px;
display: block;    background-
color: #403552;

}
.header{    width:
100%;
height:100%;
margin: auto; }
.navbar{
height:70px;
position:sticky;
top:0px; }
h1{
  text-align: center;
color:#FBD285;    font-family:
'Fascinate', cursive;    margin-
top:5em;    letter-spacing: 3px;
```

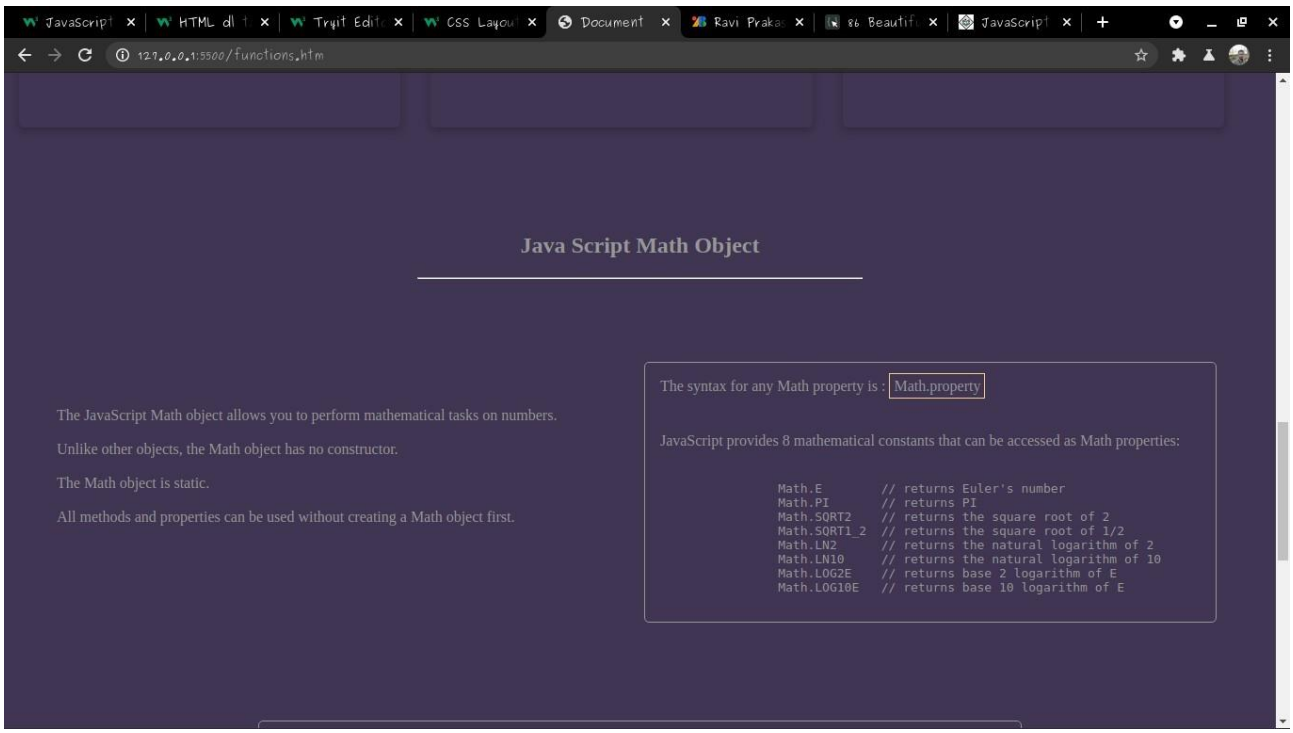
```
  font-size: 45px; } ul{
display: flex;     flex-
direction: row;
   justify-content: flex-end; }
li{     list-style-type:
none;
   padding: 2em;

}
a{
   text-decoration: none;
color:#FBD285;     font-family:
'Fascinate', cursive;
   font-family: 'Ravi Prakash', cursive;
} a:hover{
color:#A981FF;
font-weight:bolder; }
h2{
   color:#989898;
}
.row{
   display:flex;     flex-
direction: row;     width:
100%;
   margin-top: 2em;
}
.content{
margin:1em;
padding: 1em;
width:30%;
height:210px;
   box-shadow: rgba(0, 0, 0, 0.24) 0px 3px 8px;     border-
radius: 5px;
}
.content:hover{
   box-shadow: rgba(0, 0, 0, 0.3) 0px 19px 38px, rgba(0, 0, 0, 0.22) 0px 15px 12px;
border:none;
}
h3{
   color:#989898;
}
p{
   color:#989898;
}
```

```
.container{
display:flex;    flex-
direction:row;
width:100%;
}
.desc{    width:
45%;
margin:1.5em;
   padding: 2em;
}
.example{    width:45%;
margin:1.5em;
padding:1em;
color:#989898;    border:
1px solid #989898;
   border-radius: 5px;
}
.obj{    width: 60%;
margin: auto;    border: 1px
solid #989898;
   border-radius: 5px;
}
dl{      margin: 2em 0 0
4em; } dd,dt{     margin-
top:1.5em; }
```

OUTPUT:


Document
127.0.0.1:5500/functions.htm
Home
Documents
Contact
About
JAVASCRIPT FUNCTIONS


Document
127.0.0.1:5500/functions.htm#about
PREDEFINED FUNCTIONS
substr()
Returns the characters in a string beginning at the specified location through the specified number of characters.
toLowerCase()
Returns the calling string value converted to lower case.
toUpperCase()
Returns the calling string value converted to uppercase.
charCodeAt()
Returns a number indicating the Unicode value of the character at the given index.
charAt()
Returns a string containing the source of the Boolean object; you can use this string to create an equivalent object..
concat()
Combines the text of two strings and returns a new string.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JavaScript
127.0.0.1:5500/functions.htm
Java Script Math Object
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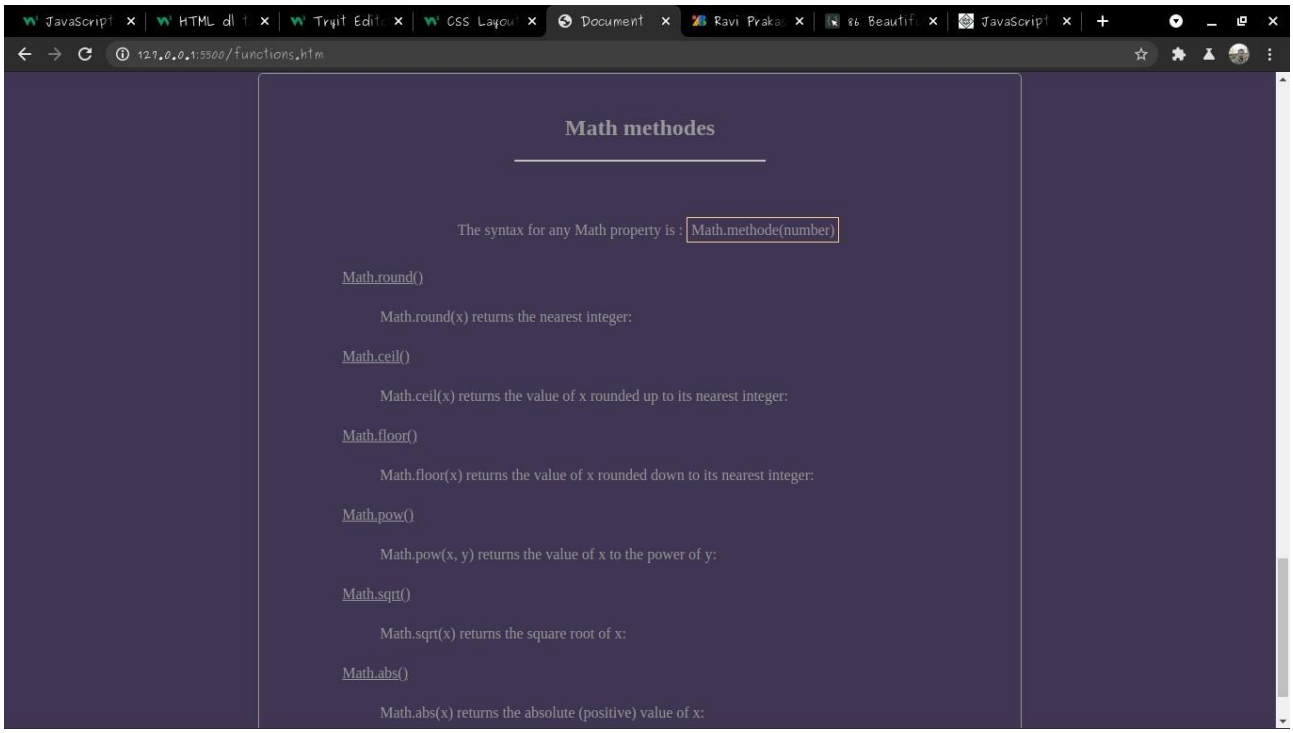
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Math methodes
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Math.sqrt()
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