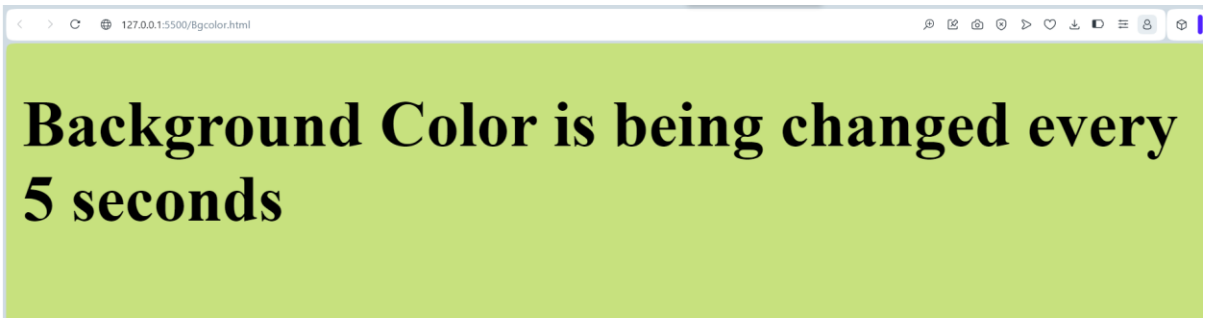
1. Write a JavaScript code for displaying a digital clock on web page.

```
<html>
    <head>
        <title>Digital Clock</title>
    </head>
    <body>
        <div id = "clock" onload="currentTime()"></div>
        <script>
            function currentTime() {
    let date = new Date();
    let hh = date.getHours();
    let mm = date.getMinutes();
    let ss = date.getSeconds();
    let session = "AM";


    if(hh > 12){
        session = "PM";
     }

     hh = (hh < 10) ? "0" + hh : hh;
     mm = (mm < 10) ? "0" + mm : mm;
     ss = (ss < 10) ? "0" + ss : ss;

     let time = hh + ":" + mm + ":" + ss + " " + session;

    document.getElementById("clock").innerText = time;
    let t = setTimeout(function(){ currentTime() }, 1000);

  }

  currentTime();
        </script>
    </body>
</html>
```

2. Write a JS To change background color of the web page automatically after every 5 seconds.

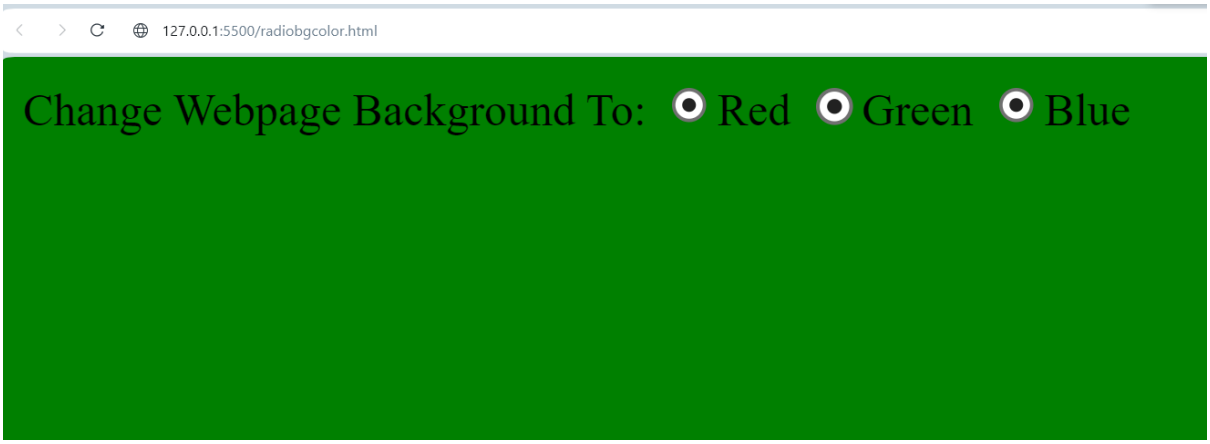
Bgcolor.html > html

```
<!DOCTYPE html>
<html>
<head>
  <title>Change bg color every 1 seconds</title>
</head>
<body>
<h1>Background Color is being changed every 5 seconds</h1>
<script>
setInterval(
function () {
  var randomColor = Math.floor(Math.random()*16777215).toString(16);
  document.body.style.backgroundColor = "#"+randomColor;
},5000);
</script>
</body>
</html>
```



3. Write a JS to display three radio buttons on the web page , namely, “Red”, “Blue” and “Green”. Selection any button changes the background color as per the name of the button.

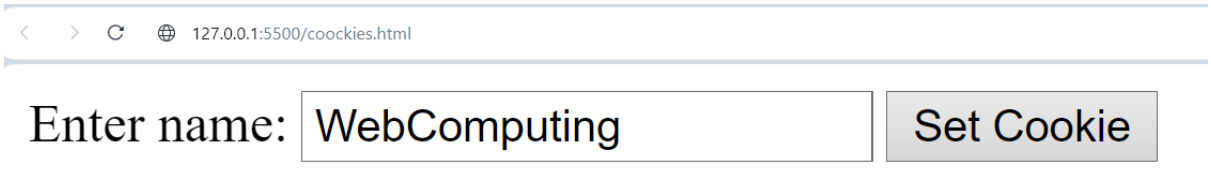
```html
<!DOCTYPE html>
<title>Change the Background Color with JavaScript</title>
<script>
    function changeBodyBg(color){
        document.body.style.background = color;
    }

    function changeHeadingBg(color){
        document.getElementById("heading").style.background = color;
    }
</script>
</head>
<body>
    <div>
        <label>Change Webpage Background To:</label>
        <input type="radio" onclick="changeBodyBg('red');">Red</button>
        <input type="radio" onclick="changeBodyBg('green');">Green</button>
        <input  type="radio" onclick="changeBodyBg('blue');">Blue</button>
    </div>
</body>
</html>
```

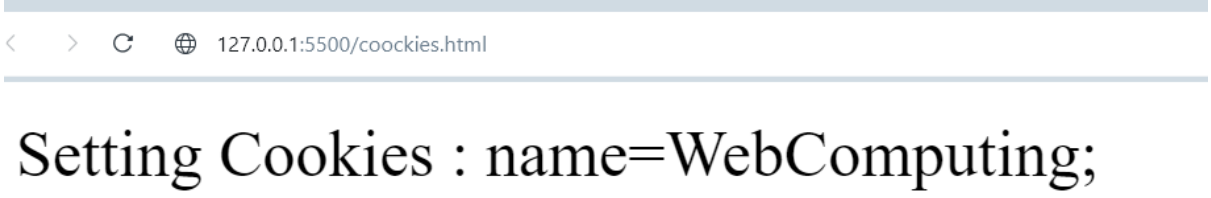


4. Write a JavaScript code to set a cookie on the user's computer

coockies.html > html > head > script > WriteCookie

```
<html>
  <head>
    <script type = "text/javascript">
        function WriteCookie() {
          if( document.myform.customer.value == "" ) {
            alert("Enter some value!");
            return;
          }
          cookievalue = escape(document.myform.customer.value) + ";";
          document.cookie = "name=" + cookievalue;
          document.write ("Setting Cookies : " + "name=" + cookievalue );
        }
    </script>
  </head>
  <body>
    <form name = "myform" action = "">
       Enter name: <input type = "text" name = "customer"/>
       <input type = "button" value = "Set Cookie" onclick = "WriteCookie();"/>
    </form>
  </body>
</html>
```





5. Write a JavaScript to validate Username ,Password and Email. Username and Password should not blank and minimum length of password=8. Email should have @character.
   For program refer my notes

6. Write a Node JS to demonstrate Call back and Asynchronous function
   For program refer my notes

7. Design HTTP server using Node JS which log client request in log.txt.
   For program refer my notes

8. Write a React code to create a button “Greet the User” and display an alert box saying “Hello!” on clicking that button
9. Write a code making use of React Hooks that displays four buttons namely, “Red”, “Blue”, “Green”, “Yellow”. On clicking any of these buttons, the code displays the message that you have selected that particular color.

Networking

1. To design and simulate the environment for DHCP using Cisco packet tracer
2. To design and Simulate VLANs on the switch/router using Cisco packet tracer
3. To design and simulate static NAT on the router using Cisco Packet Tracer