

Lab 4 - Program 1

Index

- 1) Write a web page which displays a digital clock, using the javascript timer event

index.html

```
<!DOCTYPE html>
<html>
  <head>
    <title> Web Technology </title>
    <link rel="stylesheet" href="Style.css" >
  </head>
  <body>
    <div class="main">
      <h3> Digital Clock </h3>
      <div class="clock" id="clock" ></div>
      <div class="buttons" >
        <button type="button" id="start" onclick="start()" > Start </button>
```

```
<button type="button" id="stop">  
  onclick="stop();</button>  
</div>  
</div>  
<script src="script.js"></script></script>  
</body>  
</html>
```

script.js

```
var interval = setInterval(displayTime, 1000);
```

function displayTime() {

```
  var time = new Date();
```

```
  var hours = time.getHours();
```

```
  var mins = time.getMinutes();
```

```
  var secs = time.getSeconds();
```

```
  var am_pm = "AM";
```

```
  if (hours > 12) {
```

```
    hours -= 12;
```

```
    am_pm = "PM";
```

y

```
if (hours == 0) {
```

```
    hours = 12;
```

```
    am-pm = "AM";
```

```
y
```

```
hours = hours < 10 ? "0" + hours : hours;
```

```
mins = mins < 10 ? "0" + mins : mins;
```

```
secs = secs < 10 ? "0" + secs : secs;
```

```
var curr-time = hours + ":" + mins + ":" +  
    secs + " " + am-pm;
```

```
clock.innerHTML = curr-time;
```

```
y
```

```
display-time();
```

```
function start() {
```

```
    interval = setInterval(display-time, 1000);
```

```
    display-time();
```

```
    document.getElementById("clock").style.
```

```
    animation = "none";
```

```
y
```

```
function stop() {
```

```
    var temp = clearInterval(interval);
```

```
    console.log(temp);
```

```
    document.getElementById("clock").style.
```

```
    animation = "blinker 0.75s infinite";
```

2) WT - Lab - 4 - 2

Write a wi web page to display mouse coordinates on mouse move over the canvas

index.html

<!DOCTYPE html>

<html>

<head>

<title> Web Technology </title>

<link rel="stylesheet" href="style.css">

</head>

<body>

<div class="main" onmouseover="refresh()>

<h3> Hover over the canvas </h3>

<div class="canvas">

<canvas id="canvas" onmousemove=

"m-point(event)"></canvas>

</div>

<div class="coordinates" id="coordinates">

</div>

</div>

<script src="script.js"></script>

</body>

</html>

Script.js

```
const canvas = document.getElementById("canvas1");
const ctx = canvas.getContext("2d");
const display = document.getElementById("coordinates");
display.innerHTML = "x: 0 y: 0";
canvas.width = "600";
canvas.height = "400";
```

```
function onpoint(event) {
    var rect = canvas.getBoundingClientRect();
    var x = event.clientX - rect.left;
    var y = event.clientY - rect.top;
    display.innerHTML = "x: " + x + " y: " + y;
}
```

Function refresh() {

```
display.innerHTML = "x: 0 y: 0";
```

y

3) WT-Lab - 4 . 3

Write a webpage document for free hand drawing using canvas.

index.html

```
<!DOCTYPE html>
<head <html>
<head>
    <title> Web technology </title>
</head>
<body>
    <script src="script.js"></script>
    <div id="main">
        <h3> Draw Here! </h3>
        <div class="button Area">
            <button type="button" class="clear">
                Clear canvas </button>
        </div>
        <canvas id="canvas" class="canvas">
        </canvas>
    </div>
</body>
</html>
```

```
window.addEventListener("load", () => {  
    const canvas = document.getElementById("canvas");  
    const ctx = canvas.getContext("2d");  
    const clear = document.querySelector(".clear");  
    canvas.height = 540;  
    canvas.width = 800;  
    var paint = false;  
})
```

```
function clearCanvas() {
```

```
    ctx.clearRect(0, 0, canvas.width, canvas.height)
```

```
}  
function startPosition() {
```

```
    paint = true;
```

```
    drawLine(e);
```

```
g
```

```
function finishedPosition() {
```

```
    paint = false;
```

```
    ctx.beginPath();
```

```
g
```

```
function drawLine(event) {
    console.log(point);
    if (!point) return;
    var rect = canvas.getBoundingClientRect();
    var x = event.clientX - rect.left;
    var y = event.clientY - rect.top;
    ctx.lineWidth = 3;
    ctx.lineCap = "square";
    ctx.strokeStyle = "aqua";
    ctx.lineJoin = "round";
    ctx.lineTo(x, y);
    ctx.stroke();
    ctx.beginPath();
    ctx.moveTo(x, y);
}

canvas.addEventListener("mousedown", startPosition);
canvas.addEventListener("mouseup", finishedPosition);
canvas.addEventListener("mousemove", drawLine);
clear.addEventListener("click", clearCanvas);
```

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4) WT-Lab 4.4

Write a javascript which will link all the Javascript programs through a dropdown menu.

index.html

```
<!DOCTYPE html>
<html>
<head>
    <title> Web technology </title>
    <link rel="stylesheet" href="style.css">
</head>
<body>
    <div class="container">
        <h1> Link to display Transcript programs </h1>
        <div class="main">
            <h3> Please select a program you want to render in this page </h3>
            <select name="program" id="program" onchange="displayPage()">
                <option value="4" disabled selected>
                    --- Select --- </option>
```

<option value = ".../L4-1/index.html">
Display classic </option>
<option value = ".../L4-2/index.html">
Canvas Mouse Point </option>
<option value = ".../L4-3/index.html">
Canvas Freehand drawing </option>
</select>
</div>
</div>
<script src = "script.js"></script>
</body>
</html>

Script.js

```
var program = document.querySelector("#program");
function displayPage() {
    var programValue = program.value;
    open(programValue, "_blank");
}
```