



Department of Computer Science and Engineering
Data Science

Academic Year: 2023-2024

Semester: V

Class / Branch: CSE(DS)

Subject: WC

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Date Of Performance: 16/8/24

Date Of Submission: 16/8/24

Experiment No. 4

Aim:- Develop web pages using Javascript.

Program :-

HTML:

```
<!DOCTYPE html>
```

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

```
<head>
```

```
<meta charset="UTF-8">
```

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
<title>Analog Clock</title>
```

```
<link rel="stylesheet" href="clock.css">
```

```
</head>
```

```
<body>
```

```
<div class="clock">
```

```
<div class="clock-face">
```

```
<div class="number number1">1</div>
```



```
<div class="number number2">2</div>

<div class="number number3">3</div>

<div class="number number4">4</div>

<div class="number number5">5</div>

<div class="number number6">6</div>

<div class="number number7">7</div>

<div class="number number8">8</div>

<div class="number number9">9</div>

<div class="number number10">10</div>

<div class="number number11">11</div>

<div class="number number12">12</div>

<div class="hand hour-hand"></div>

<div class="hand minute-hand"></div>

<div class="hand second-hand"></div>

</div>

</div>

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

</body>

</html>
```

CSS:

```
body {

display: flex;

justify-content: center;
```



```
align-items: center;

height: 100vh;

background: #f0f0f0;

margin: 0;

}

.clock {

width: 300px;

height: 300px;

border: 50px solid black;

border-radius: 50%;

position: relative;

padding: 20px;

box-shadow: 0 0 20px rgba(0, 0, 0, 0.2);

background: white;

}

.clock-face {

position: relative;

width: 100%;

height: 100%;

transform: translateY(-3px); /* Fix for the hands positioning */

}

.hand {

width: 50%;
```



```
background: black;

position: absolute;

top: 50%;

transform-origin: 100%;

transform: rotate(90deg);

transition: all 0.05s;

transition-timing-function: cubic-bezier(0.1, 2.7, 0.58, 1);

}

.hour-hand {

height: 10px;

width: 30%;

left: 20%;

}

.minute-hand {

height: 4px;

}

.second-hand {

height: 2px;

background: red;

}

.number {

position: absolute;

font-size: 24px;
```



```
transform: translate(-50%, -50%);
```

```
}
```

```
.number1 { top: 17%; left: 70%; }
```

```
.number2 { top: 30%; left: 85%; }
```

```
.number3 { top: 50%; left: 90%; }
```

```
.number4 { top: 70%; left: 85%; }
```

```
.number5 { top: 83%; left: 70%; }
```

```
.number6 { top: 90%; left: 50%; }
```

```
.number7 { top: 83%; left: 30%; }
```

```
.number8 { top: 70%; left: 15%; }
```

```
.number9 { top: 50%; left: 10%; }
```

```
.number10 { top: 30%; left: 15%; }
```

```
.number11 { top: 17%; left: 30%; }
```

```
.number12 { top: 10%; left: 50%; }
```

JS Code:

```
// script.js
```

```
const hourHand = document.querySelector('.hour-hand');
```

```
const minuteHand = document.querySelector('.minute-hand');
```

```
const secondHand = document.querySelector('.second-hand');
```

```
function setDate() {
```

```
const now = new Date();
```

```
const seconds = now.getSeconds();
```

```
const secondsDegrees = ((seconds / 60) * 360) + 90;
```



```
secondHand.style.transform = `rotate(${secondsDegrees}deg)`;

const minutes = now.getMinutes();

const minutesDegrees = ((minutes / 60) * 360) + ((seconds / 60) * 6) + 90;

minuteHand.style.transform = `rotate(${minutesDegrees}deg)`;

const hours = now.getHours();

const hoursDegrees = ((hours / 12) * 360) + ((minutes / 60) * 30) + 90;

hourHand.style.transform = `rotate(${hoursDegrees}deg)`;

}

setInterval(setDate, 1000);

setDate();
```

Output:

