CLOCK

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Introduction

A clock is a device used to measure and indicate time. The clock is one of the oldest human inventions, meeting the need to measure intervals of time shorter than the natural units: the day, the lunar month, year and galactic year. Devices operating on several physical processes have been used over the millennia.

Some predecessors to the modern clock may be considered as "clocks" that are based on movement in nature: A sundial shows the time by displaying the position of a shadow on a flat surface. There is a range of duration timers, a well-known example being the hourglass. Water clocks, along with the sundials, are possibly the oldest time-measuring instruments. A major advance occurred with the invention of the verge escapement, which made possible the first mechanical clocks around 1300 in Europe, which kept time with oscillating timekeepers like balance wheels

The project aims at making a clock which tells real time using HTML, javascript and CSS.

Code

Index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Clock - Using Pure JS</title>
    <link rel="stylesheet" href="index.css">
    <script src="index.js"></script>
</head>
<body bgcolor="">
    <div id="clockContainer">
        <div id="hour"></div>
        <div id="minute"></div>
        <div id="second"></div>
    </div>
```

```
</body>
</html>
```

Index.css

```css
#clockContainer{
    position: relative;
    margin: auto;
    height: 40vw;
    width: 40vw;
    background: url(clock.png) no-repeat;
    background-size: 100%;
}

#hour, #minute, #second{
    position: absolute;
    background: black;
    border-radius: 10px;
    transform-origin: bottom;
}
#hour{
    width: 1.8%;
    height: 25%;
    top: 25%;
    left: 48.85%;
    opacity: 0.8;
}
#minute{
    width: 1.6%;
    height: 30%;
    top: 19%;
    left: 48.9%;
    opacity: 0.8;
}
#second{
    width: 1%;
    height: 40%;
    top: 9%;
    left: 49.25%;
    opacity: 0.8;

}
```

Index.js

```js
setInterval(() => {
    d = new Date();
    htime = d.getHours();
    mtime = d.getMinutes();
```

```
    stime = d.getSeconds();
    hrotation = 30*htime + mtime/2;
    mrotation = 6*mtime;
    srotation = 6*stime;

    hour.style.transform = `rotate(${hrotation}deg)`;
    minute.style.transform = `rotate(${mrotation}deg)`;
    second.style.transform = `rotate(${srotation}deg)`;
}, 1000);
```

Output