Week 2 Day 2

4. Creating Animations & Keyframes

Creating animations with CSS is the most exciting part of the whole web development. We will make a new file as *Keyframes.html* and add a boilerplate for the basic HTML template. Then give the title as **Keyframes and Animations** in the <title> tag.

Let us now write the HTML code for our website as follows-

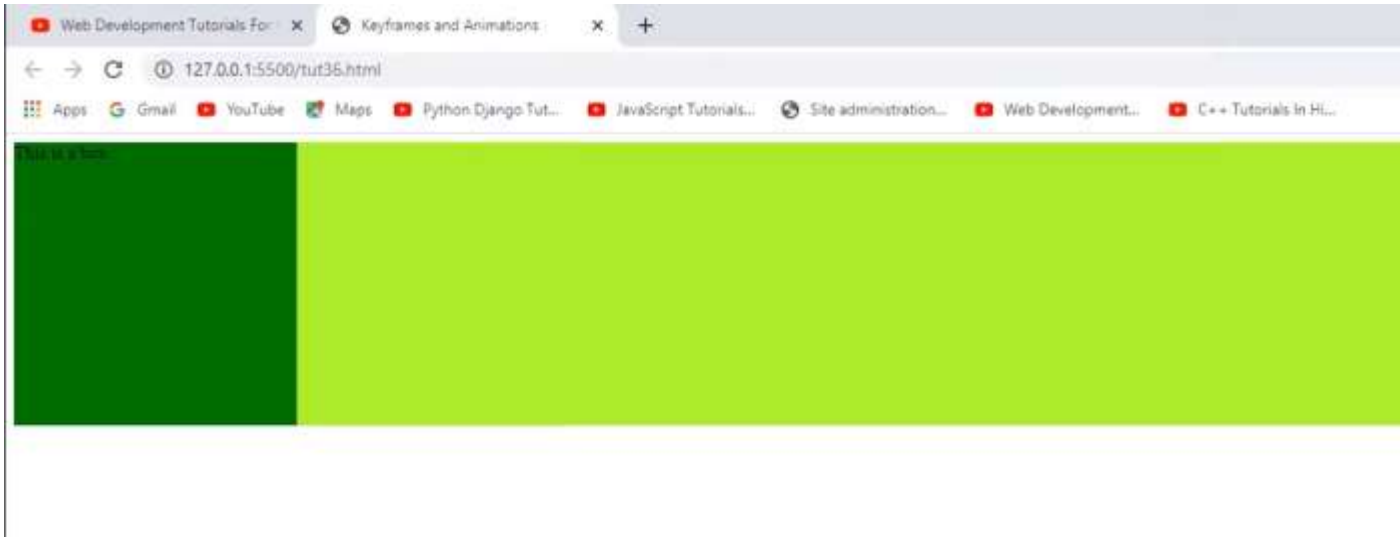
```
<body>
   <div class="container">
      <div class="box">
         This is a box
      </div>
   </div>
</body>
```

Let us now style our *container* and *box* by adding some of the CSS as follows-

```
.container {
      background-color: greenyellow;
   }

   .box {
      background-color: green;
      width: 250px;
      height: 250px;
      position: relative;
}
```

The output will be as follows-



The position of the box is set to be *relative* so that we can move it within our webpage.

For making our animation, we need to start by giving the **animation-name.** We can give any name here. It is just used to define our animation. The code for designing the animation is as follows-

```
.box {
    background-color: green;
    width: 250px;
    height: 250px;
    position: relative;
    animation-name: amira;
    //animation-name: amira2;
    animation-duration: 8s;
    animation-iteration-count: 1;
}
```

In the above example, we are using the animation-name as **amira.** The next property used is **animation-duration.** It is used to decide how long our animation will run. The

last property is **animation-iteration-count.** It is used to decide the number of times the animation will run.

Now we will define the animation we made, i.e. *amira* as follows-

```
keyframes amira {
    from {
        width: 200px;
    }

    to {
        width: 1400px;
    }
}
```

The **keyframes** are used to make the animation. **From** and **to** are used to decide how the animation will move in the webpage. In the above example, we are moving the animation amira from 200px to 1400px. These types of animations are used to design scroll bars or progress bars on the webpage.

There are some other properties also to customize the animations like-

- **animation-fill-mode:**

If we want to keep the last property applied to the animation then we can set the animation-fill-property as *forward* as follows-

```
animation-fill-mode: forward;
```

- **animation-timing-function:**

We can define this property with three different values-

1. **ease-in**

After applying this, the animation will start slowly and becomes fast towards the end.

2. **ease-out**

After applying this, the animation will begin fastly and become slow towards the end.

3. **ease-in-out**

After applying this, the animation will start slowly, then become fast in the midway, and ends slowly.

- **animation-delay**

It is used to define the time after which the animation will start.

animation-delay: 3s;

- **animation-direction:**

This property is used to define the direction of the animation. For example, if we select it as *reverse*, it will move the animation in reverse direction.

animation-direction: reverse;

There is another method of creating animation apart from keyframes. For this, we will give the name as *amira2*.

```
@keyframes amira2 {
    0%{
        top:0px;
        left:0px;
    }
    25%{
        top: 250px;
        left: 0px;
    }
    75%{
        top: 250px;
        left: 250px;
    }
    100%{
        top: 0px;
        left: 250px;
    } }
```