Assignment 3

Build Webpage with animations:

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Contents

Introduction

The main purpose of this assignment is to add the animation effect into the webpage. It will make the page more attractive in general, and can give a user more focus on what is important stuff. As of assignment, there is no desired feature for my website, but try to use enough animation options as possible.

Conditions

These are the properties can be found in w3schools.com, so I tried to cover these features one by one.

- `@keyframes`
- `animation-name`
- `animation-duration`
- `animation-delay`
- `animation-iteration-count`
- `animation-direction`
- `animation-timing-function`
- `animation-fill-mode`
- `animation`

@keyframes

'Keyframes' narrates the sequence and action for the animation. Basically each animation has this property to make it work, and each keyframes has their own name.

```
}
@keyframes slide-from-right {
    from { left: 10000px; top: 0px; }
    to { left: 0px; top: 0px; }
}
```

Figure 1: simple first keyframes definition

One example of '@keyframes' I used for slide images. Since it only describe the action that slide from the right side to the 0 position, so I named it as slide-from-right. It can be used for any item that wants to appear from the right.

animation-name

Animation-name defines the keyframes name that is used in the tag and this is one example

```
.slide-image {
    width: 48%;
    object-fit: cover;
    aspect-ratio : 1 / 1;
    position: relative;
    animation-name: slide-from-right;
    animation-duration: 2s;
    animation-fill-mode: both;
}
```

Figure 2: slide-image class in CSS

In the middle, the animation-name has set as slide-from-right that I defined earlier. Any item that has slide-image class will show up with the sliding action

animation-duration

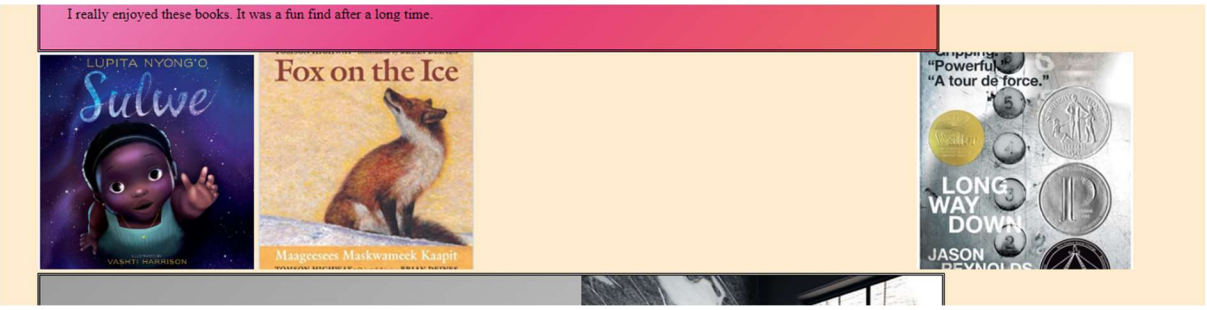
In the Figure 2, the animation-duration sets the time period that the slide-from-right action takes.

animation-delay

```
.first-slide {
    animation-delay: -1s;
}
.second-slide {
    animation-delay: 0s;
}
.third-slide {
    animation-delay: 1s;
}
.forth-slide {
    animation-delay: 2s;
}
```

Figure 3: animation-delay options

For each slide Items I want to show up with slide action, I set the delays so they show up sequentially.



animation-iteration-count

```
.turn-around-container img{
    width: 400px;
    height: 300px;
    position: absolute;
    animation-name: turnaround;
    animation-iteration-count: infinite;
}
```

Figure 4: turn-around-container

The animation-iteration-count has been applied as infinite for showing it constantly.

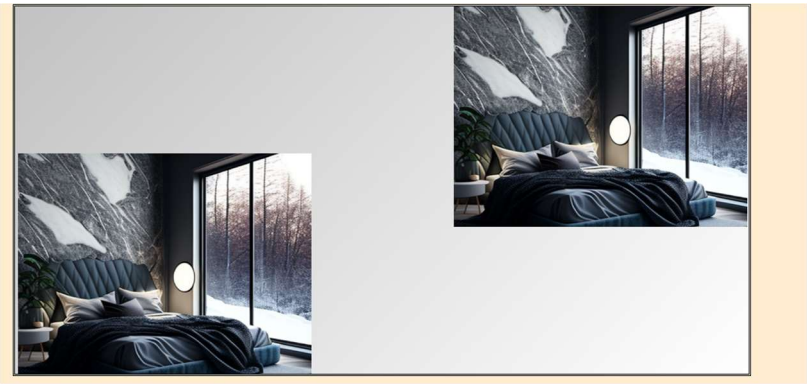


Figure 4: screen shot for turning around images

animation-direction

It is kind of distracting, but I used two images to show some effect with this direction parameter. One is forward, and the other is backward.

animation-timing-function

animation-timing-functions have been applied to the sliding images, but a bit hard to notice. Each slide different style of approach.

animation-fill-mode

fill mode set as both could make the result the slide images remain after the animation.

There were 4 sections of HTML.

Different types of animations

Gradation

It is just applied version of the animation but could be useful. I could change the gradation color, by

- making big background image similar to below css.

```
#container {
    background: linear-gradient(-45deg, #ee7752, #e73c7e, #eea6d5, #eed5ab);
    background-size: 200%;
    animation: gradient 10s ease infinite;
```

- Then move the image around using animation property.

```
@keyframes gradient {
    0% {
        background-position: 0% 50%;
    }
    50% {
        background-position: 100% 50%;
    }
    100% {
        background-position: 0% 50%;
    }
}
```

- So, I could get the gradation change effect.

I have added these gradation effect into to sections.
Changing timing, color counts, speeds… etc. will be very, and can change using CSS animation factors.

Hover over

There are couple of ways to trigger the animation event. By the default the value is when the website is reloaded, but I could put some timer to delay it. Another option is when I hover the mouse on the target.

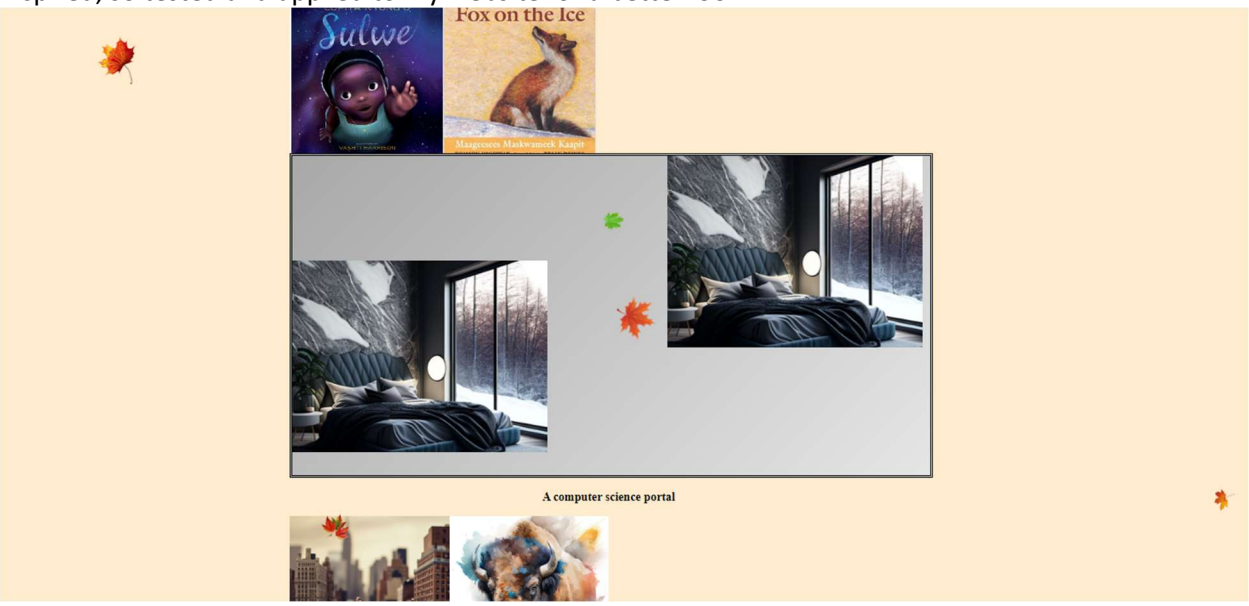
```
.bigger-image:hover {
    /* opacity: 0.5; */
    animation-name: bigger;
    /* position: absolute; */
    animation-duration: 2s;
    animation-fill-mode: both;

    /* background-color: yellow; */
}
```

The hover property gives the condition to define whether the mouse is over or not. Adding this condition and set the animation into this condition will change the trigger timing.

Divide sections

It is also a bit complicated condition, but because I got this example from the example condition and inspired, so tested and applied to my website for a better look.



Those leaves falling from the sky are the example I got from https://www.sliderrevolution.com/resources/css-animated-background/ originally, and change the function a bit so I can understand better as well as to make them look better.

1. Show several leaves into div element
2. Set those location separately
3. Apply actions for each item. (in my case I just use a same action for all leaves, but just change the timing and applying speed.

```
35 }
34 .leaf div{
33     position:absolute ;
32     display:block ;
31 }
30 .leaf div:nth-child(1){
29     left:20%;
28     animation:fall 15s linear infinite ;
27     animation-delay:-2s;
26 }
25 .leaf div:nth-child(2){
24     left:30%;
23     animation:fall 10s linear infinite ;
22     animation-delay:-4s;
21 }
20 .leaf div:nth-child(3){
19     left:50%;
18     animation:fall 20s linear infinite ;
17     animation-delay:-7s;
16 }
15 .leaf div:nth-child(4){
14     left:50%;
13     animation:fall 18s linear infinite ;
12     animation-delay:-5s;
11 }
10 .leaf div:nth-child(5){
 9     left:85%;
 8     animation:fall 12s linear infinite ;
 7     animation-delay:-5s;
 6 }
 5 .leaf div:nth-child(6){
 4     left:15%;
 3     animation:fall 16s linear infinite ;
 2     animation-delay:-10s;
 1 }
218
~
```

```css
@keyframes fall{
    0%{
        /* opacity:1; */
        top:-10%;
        transform:translateX(20px) rotate(0deg);
    }
    20%{
        /* opacity:0.8; */
        transform:translateX(-30px); translateY (-10px); rotate(45deg);
        /* left:10px; */
    }
    30%{
        /* opacity:0.8; */
        transform:translateX(-50px); translateY (-10px); rotate(45deg);
        /* left:10px; */
    }
    40%{
        transform:translateX(-10px) rotate(90deg);
        /* left: 0px; */
    }
    60%{

        transform:translateX(60px) rotate(180deg);
    }
    80%{

        transform:translateX(0px) rotate(135deg);
    }
    100%{
        top:180%;
        transform:translateX(10px) rotate(225deg);
    }
}
```

Conclusion

Creating an animated website is very fun stuff to do, and every detail gives me more ideas to improve the actions. However some of actions are sometimes very confusing and expecting proper result is not an easy work. In addition, I found several different types of functions and skills that I couldn’t apply in this scenario due to the lack of time or another level of methods. I found that the very beautiful website effects that I have seen before could be done with very simple CSS effects, but at the same time I felt that creating all those effects are very tricky work and imagination is required.

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