

9. Animations and Bootstrap

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Animation in CSS

CSS allows the animation of HTML elements without using JavaScript. You can change as many CSS properties as you want, as often as you wish.

To use CSS animation, you must first specify some keyframes for the animation.

Keyframes hold what styles the element will have at certain times.

▼ Keyframes Rule

When you specify CSS styles inside the `@keyframes` rule, the animation will gradually change from the current style to the new style at certain times.

To get an animation to work, you must bind the animation to an element.

```
@keyframes example {  
  from {background-color: red;}  
  to {background-color: yellow;}  
}
```

▼ Animation properties

- **animation-name**

It specifies the name of the animation. This is used to bind the animation with a specific element.

- **animation-duration**

The animation-duration property defines how long an animation should take to complete. If the animation-duration property is not specified, no animation will occur, because the default value is 0s (0 seconds).

- **animation-delay**

The animation-delay property specifies a delay for the start of an animation.

- **animation-iteration-count**

The animation-iteration-count property specifies the number of times an animation should run.

You can specify a number or an **infinite** value to run the animation forever.

- **animation-direction**

The animation-direction property specifies whether an animation should be played forwards, backwards or in alternate cycles.

The animation-direction property can have the following values:

- **normal** - The animation is played as normal (forwards). This is default
- **reverse** - The animation is played in reverse direction (backwards)
- **alternate** - The animation is played forwards first, then backwards
- **alternate-reverse** - The animation is played backwards first, then forwards

- **animation-timing-function**

The animation-timing-function property specifies the speed curve of the animation.

The animation-timing-function property can have the following values:

- **ease** - Specifies an animation with a slow start, then fast, then end slowly (this is default)
- **linear** - Specifies an animation with the same speed from start to end
- **ease-in** - Specifies an animation with a slow start
- **ease-out** - Specifies an animation with a slow end
- **ease-in-out** - Specifies an animation with a slow start and end

- **cubic-bezier(n,n,n,n)** - Lets you define your own values in a cubic-bezier function

- **animation-fill-mode**

The animation-fill-mode property specifies a style for the target element when the animation is not playing (before it starts, after it ends, or both).

The animation-fill-mode property can have the following values:

- **none** - Default value. Animation will not apply any styles to the element before or after it is executing
- **forwards** - The element will retain the style values that is set by the last keyframe (depends on animation-direction and animation-iteration-count)
- **backwards** - The element will get the style values that is set by the first keyframe (depends on animation-direction), and retain this during the animation-delay period
- **both** - The animation will follow the rules for both forwards and backwards, extending the animation properties in both directions

- **animation**

This is a shorthand property for all the above 7 properties.

Basics of Bootstrap

▼ When should you really use Bootstrap?

- Need a Front-end fast
- Need a Front-end for Internal Usage (e.g. Internal-Dashboards etc.)
- Don't care about the UI, It should just be a working Frontend.
- Learning Backend like NodeJS and need a quick Frontend. And don't care about CSS

▼ When should you not use Bootstrap?

- Need a Frontend for Customers/Clients
- Just started learning CSS
- Have enough time to create a website UI
- Only going to use a few Components of Bootstrap

Assignments

Build the following Animations:

https://s3-us-west-2.amazonaws.com/secure.notion-static.com/7f2ec60f-7e42-4b6a-bea6-c49cff0b1501/Screen_Recording_2022-11-18_at_7.30.12_PM.mov

https://s3-us-west-2.amazonaws.com/secure.notion-static.com/c8eb6a3f-53fc-4ede-b3b3-8f4b4b6e0f8f/Screen_Recording_2022-11-18_at_7.32.31_PM.mov

[https://s3-us-west-2.amazonaws.com/secure.notion-static.com/5731eb30-dc0a-499f-ba7d-89f2332658fb/Screen_Recording_2022-11-18_at_7.33.58_P M.mov](https://s3-us-west-2.amazonaws.com/secure.notion-static.com/5731eb30-dc0a-499f-ba7d-89f2332658fb/Screen_Recording_2022-11-18_at_7.33.58_PM.mov)

https://s3-us-west-2.amazonaws.com/secure.notion-static.com/4f0ff3d5-bb6d-4321-9445-130d85f0ab53/Screen_Recording_2022-11-18_at_7.36.44_PM.mov

https://s3-us-west-2.amazonaws.com/secure.notion-static.com/69c20fa3-18f8-41f5-9df6-a0497b196cfe/Screen_Recording_2022-11-18_at_8.16.46_PM.mov

2. Build the Resume Website from the previous assignments using Bootstrap.