CSS Animations, Transitions and Motion
UI
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CSS ANIMATIONS, TRANSITIONS AND MOTION UI

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WHAT IS A TRANSITION
WORKING WITH TRANSITIONS

• List of properties we need to change
• How Long/easing
• Set delay or change in speed
• Triggers (action or js)
CREATING A TRANSITION WITH DURATION
CSS TRANSITION PROPERTIES

- transition-property
- transition-duration
- transition-timing-function (optional)
- transition-delay (optional)
WORKING WITH THE TRANSITION PROPERTY
CSS3 ANIMATABLE PROPERTIES

HTTPS://DEVELOPER.MOZILLA.ORG/EN-US/DOCS/WEB/CSS/CSS_ANIMATED_PROPERTIES
USING THE TRANSITION-DELAY FUNCTION
TRANSITION TIMING FUNCTIONS

HTTPS://DEVELOPER.MOZILLA.ORG/EN-US/DOCS/WEB/CSS/TRANSITION-TIMING-FUNCTION
TRANSITION SHORTHAND

TRANSITION: PROPERTY DURATION TIMING-FUNCTION DELAY|INITIAL|INHERIT;
Transitions require a change in state or action to activate.

The transaction-duration value is required.

In the transition shorthand, the first value in seconds will be the value for the duration, the second is the delay.
POP QUIZ
WHICH PROPERTIES WILL BE TRANSITIONED FROM THE FOLLOWING CODE?

```
.button {
  background-color: #000;
  color: #fff;
  opacity: 0.75;
  font-size: 22px;
  transition-duration: 2s;
}

.button:hover {
  color: #940300;
  background-color: #ff0000;
}

.button:active {
  opacity: 1;
  font-size: 18px;
}
```
WHAT IS THE DEFAULT TRANSITION-TIMING FUNCTION

- ease-in
- ease
- ease-out
- linear
- ease-in-out
WHICH OF THE FOLLOWING VALUES WILL CAUSE A TRANSITION TO START AT FULL SPEED AND THEN END GRADUALLY?

- ease-in
- ease
- ease-out
- linear
- ease-in-out
WHAT WILL BE THE TRANSITION-DURATION VALUE FOR THE OPACITY FROM THE FOLLOWING CODE?

```css
.button {
  background-color: #000;
  color: #fff;
  opacity: 0.75;
  font-size: 22px;
  transition-duration: 2s, .4s;
  transition-property: color, font-size, background-color, opacity;
  transition-delay: .4s, .8s;
}
```
HOW WOULD YOU REWRITE THE PROPERTIES USING TRANSITION SHORTHAND

```css
.button {
  background-color: #000;
  color: #fff;
  opacity: 0.75;
  font-size: 22px;
  transition-duration: 2s, .4s;
  transition-property: color, font-size, background-color, opacity;
  transition-delay: .4s, .8s, .3s;
  transition-timing-function: ease-in, linear, ease-out;
}
```
CSS TRANSFORMATIONS
ANIMATING A CSS TRANSFORM
SCALE FUNCTION
COMBINING TRANSFORMS
TRANSFORMATIONS REVIEW

- Transformations do not require a change in state or action to activate
- Transformations can be combined with transitions to create interesting animations
- Images should be large enough for scaling
POP QUIZ
TRANSFORMATIONS DO NOT REQUIRE A CHANGE IN STATE TO BECOME ACTIVE

• true

• false
A value of 90deg in CSS rotation is equal to which of the following?

- 1 turn
- 0.5 turns
- 2 turns
- 0.25 turns
AN IMAGE OF ORIGINAL SIZE 600PX BY 400PX IS DISPLAYED WITH THE DIMENSIONS 300PX BY 200PX. IS THE IMAGE LARGE ENOUGH TO ACCOMMODATE A SMOOTH TRANSFORMATION SCALE OF 1.5?

• true

• false
3D TRANSFORMATIONS
• 3D Transformations are an extension of 2D
• 3D transformations add the z-axis
3D PERSPECTIVE
3D DIMENSIONAL ROTATIONS
MOTION UI
MOTION UI
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