



UI and Animation



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Enhancing the UI with Bootstrap

Animation Overview

The ngAnimate Module

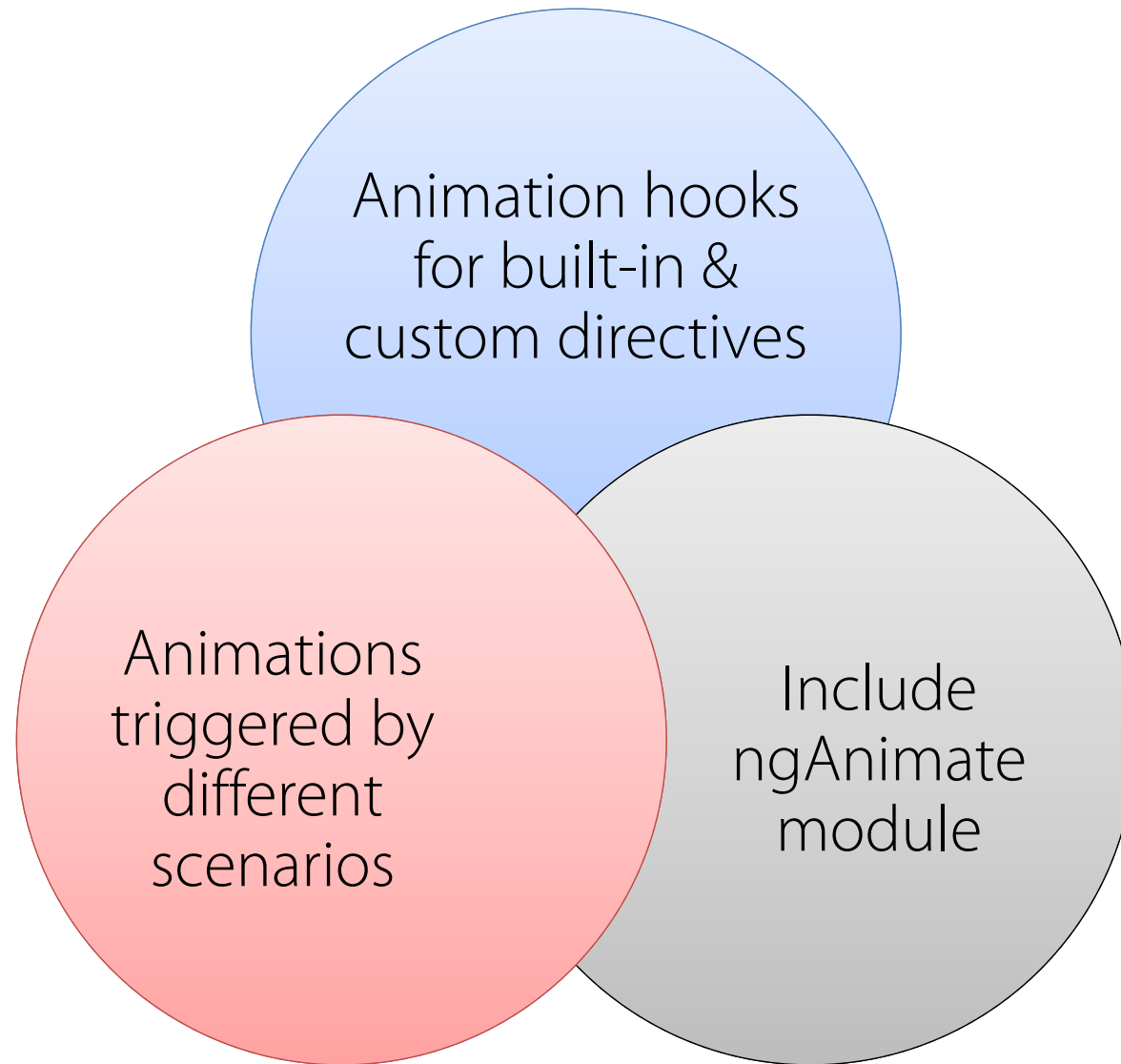
Defining Animations in CSS

Referencing Animation Classes

Enhancing the UI with Bootstrap

Animation Overview

Animations in AngularJS



Directives and Animations

Common Directives

- `ngClass`
- `ngHide/ngShow`
- `ngInclude`
- `ngRepeat`
- `ngSwitch`
- `ngView`

Custom Directives

- `$animate` service

Directives and Supported Animations

| Directive | Supported Animations |
|---------------|----------------------|
| ngClass | Add and remove |
| ngHide/ngShow | Add and remove |
| ngInclude | Enter and leave |
| ngRepeat | Enter, leave, move |
| ngSwitch | Enter and leave |
| ngView | Enter and leave |

The ngAnimate Module

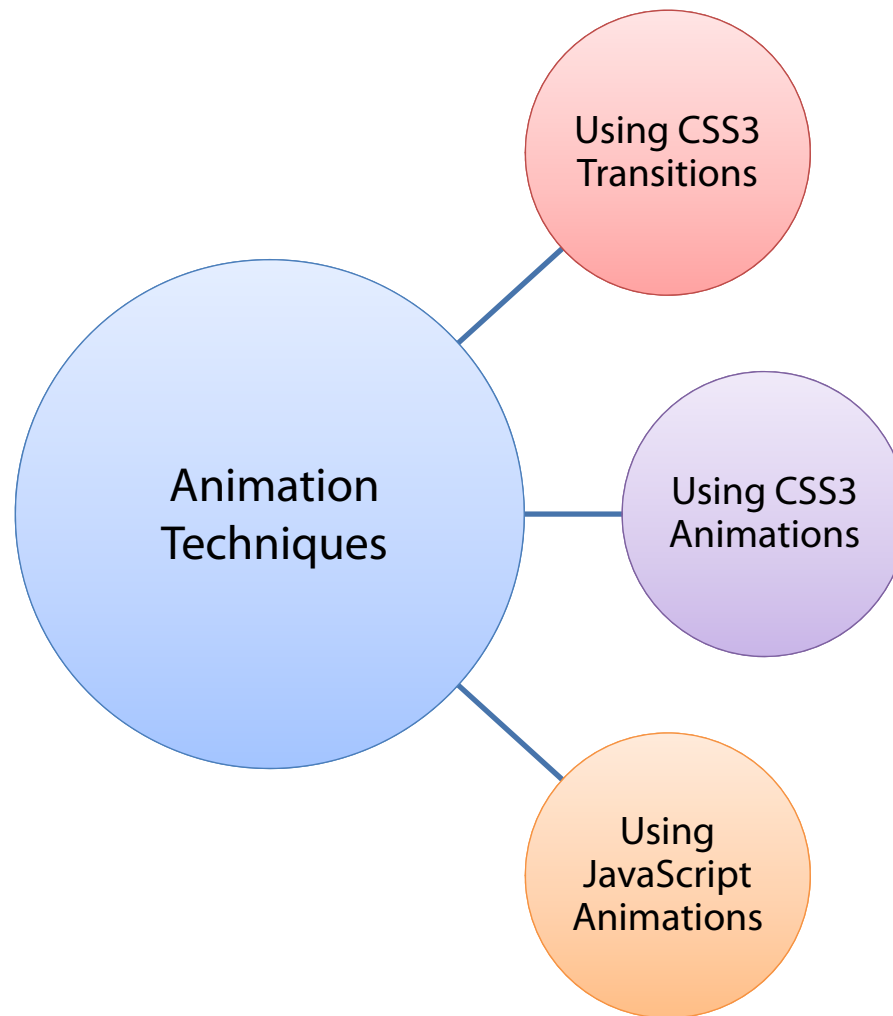
The ngAnimate Module

- AngularJS animation functionality is located in the ngAnimate module
- Add a <script> that loads angular-animate.js
- Reference ngAnimate in your module:

```
var demoApp = angular.module('customersApp', ['ngAnimate']);
```

Defining Animations in CSS

Animation Techniques



Defining Animations with CSS

- Animations can be defined multiple ways using CSS:

- CSS3 Transitions

```
transition: 0.5s linear all;
```

- CSS3 Animations

```
animation: 0.5s name-of-keyframe-animation;
```

CSS Transitions Example

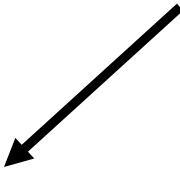
```
.slide-animation.ng-enter, .slide-animation.ng-leave {  
  transition: 0.5s linear all;  
  position: relative;  
  left: 0;  
  right: 0;  
  height: 600px;  
}
```

```
.slide-animation.ng-enter {  
  z-index: 100;  
  left: 100px;  
  opacity: 0;  
}
```

```
.slide-animation.ng-leave {  
  z-index: 101;  
  opacity: 1;  
  left: 0;  
}
```

CSS Animations Example - Enter

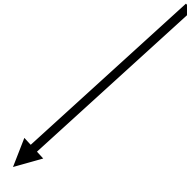
```
.slide-animation.ng-enter {  
  animation: 0.5s slide-animation-enter;  
}
```



```
@keyframes slide-animation-enter {  
  from {  
    z-index:100;  
    left:100px;  
    opacity:0;  
  }  
  to {  
    left:0px;  
    opacity:1;  
  }  
}
```

CSS Animations Example - Leave

```
.slide-animation.ng-leave {  
  animation: 0.5s slide-animation-leave;  
}
```



```
@keyframes slide-animation-leave {  
  from {  
    z-index:101;  
    left:0px;  
    opacity:1;  
  }  
  to {  
    left:-100px;  
    opacity:0;  
  }  
}
```

Referencing Animation Classes

Animations Referenced by Class

- Directives can reference animations using the class attribute:



Animation to run

```
<div ng-view  
  class="slide-animation"></div>
```

```
<div ng-show="listViewEnabled"  
  class="show-hide-animation" >...</div>
```

```
<div ng-repeat="cust in customers"  
  class="repeat-animation">...</div>
```

Summary

Summary

- **AngularJS provides built-in support for animations using CSS or JavaScript**
- **Reference the ngAnimate script and module**
- **Several directives such as ng-view and ng-repeat support animations**
- **Use CSS transitions or animations to create custom animations**