

# About this Course

This course concentrates mainly on Javascript based front-end frameworks, and in particular, AngularJS, the most popular among them. We will review the model view controller (MVC) design-pattern in the context of AngularJS. You will be introduced to various aspects of AngularJS including two-way data binding and angular directives and filters. You will then be introduced to angular controllers and scopes. UI routing and templates will then be reviewed. Finally we will look at angular modules and services. Single page application (SPA) development using Angular will also be explored. You must have either completed the previous course in the specialization on Bootstrap, or have a working knowledge of Bootstrap to be able to navigate this course.

At the end of this course you will:

- Be familiar with client-side JavaScript frameworks and the MVC design pattern
- Be able to implement single page applications in AngularJS
- Be able to use various Angular features including directives, filters, controllers, scope and routing
- Be able to implement a functional front-end web application using AngularJS

## Instructors

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## Syllabus

Week 1

Front-End Javascript Frameworks: AngularJS Overview

1. Full-Stack Web Development: The Big Picture

2. Introduction to AngularJS
3. Models, Views and Controllers
4. Angular Filters
5. Assignment 1

1. Peer Graded Assignment: Assignment 1: Introduction to AngularJS

## Week 2

### Task Runners, Angular Scope, Forms and Form Validation

1. Web Tools: Grunt and Gulp
2. Angular Scope
3. Angular Forms and Form Validation
4. Assignment 2

1. Peer Graded Assignment: Assignment 2: Angular Forms

## Week 3

### Single Page Applications

1. Angular Factory, Service and Dependency Injection
2. Angular Templates
3. Angular ngRoute and Single Page Applications
4. Angular UI-Router for Single Page Applications
5. Assignment 3

1. Peer Graded Assignment: Assignment 3: Single Page Applications

## Week 4

### Client-Server Communication and Angular Testing

1. Client-Server Communication
  2. Angular \$http Service
  3. RESTful Services and Angular \$resource
  4. Angular Testing
  5. Web Tools: Yo and Yeoman
  6. Assignment 4
  7. Conclusions
1. Peer Graded Assignment: Assignment 4: Client-Server Communication