

Course Overview

Workshop Title

Hands-on MEAN Workshop

Overview

MEAN is a collection of JavaScript-based technologies – MongoDB, Express, Angular, Node.js – used to develop web applications. It is an open-source, full-stack development solution. It helps you build fast, robust and maintainable production web applications.

This course follows a hands-on approach. It is structured around a small sample application. Different concepts will be explained in detail as they are introduced in the application. Throughout this course we'll show you how to use each of these technologies, and how to use them together.

Target Audience

This course is meant for anyone who wants to build modern, full-stack JavaScript web applications using MongoDB, Express, Angular 2 and Node.js. It provides an overview of basic concepts of each technology within MEAN stack and also how to apply these concepts together to build a working, full-stack web application.

Participants' Profile

- The participant should have a good working knowledge of HTML, CSS and JavaScript.
- It assumes that the participant has JavaScript knowledge, we do not teach JavaScript itself.
- Knowledge of Bootstrap is a plus, but not mandatory.

Goals of the Workshop

At the end of this course, the participant will be able to:

- Build full-stack applications in JavaScript using the technologies within MEAN stack
- Set up a web-server using Node.js and Express
- Understand the significance of NoSQL databases and work with MongoDB from the command line and from Node.js application
- Design and build robust REST APIs using Node.js, Express and MongoDB
- Develop modular and maintainable Single Page Applications (SPA) using Angular 2

Topics Covered

- Overview of MEAN stack
- Introduction to Node.js
- Introduction to Express
- Creating a web server with Node.js and Express
- Working with MongoDB

- Building REST APIs using Node.js, Express and MongoDB
- Creating Single Page Application (SPA) using Angular 2
- Connecting Angular 2 application with Node.js REST APIs
- Adding Users and Authentication to the application

Software Requirements

- MongoDB Community Server (<https://www.mongodb.com/download-center?jmp=nav#community>)
- Node.js (<https://nodejs.org/en/>)
- Angular CLI (<https://cli.angular.io/>)
- Code Editor (any one)
 - a) Visual Studio Code (<https://code.visualstudio.com/>)
 - b) Sublime Text (<https://www.sublimetext.com/>)
 - c) Brackets (<http://brackets.io/>)
 - d) Atom (<https://atom.io/>)
- Google Chrome