# Coursera Specialization

Full Stack Web Development with React Specialization

About this Specialization

# Learn front-end and hybrid mobile development, with server-side support, for implementing a multi-platform solution.

The first two courses in this Specialization cover front-end frameworks: **Bootstrap 4** and **React**. You’ll also learn to create hybrid mobile applications, using **React Native**. On the server side, you’ll learn to implement NoSQL databases using **MongoDB**, work within a **Node.js** environment and **Express** framework, and communicate to the client side through a RESTful API. Learners enrolling in this Specialization are expected to have prior working knowledge of HTML, CSS and JavaScript.

Course(s)

Course 1

Front-End Web UI Frameworks and Tools: Bootstrap 4

About this course:

This course will give you an overview of client-side web UI frameworks, in particular Bootstrap 4. You will learn about grids and responsive design, Bootstrap CSS and JavaScript components. You will learn about CSS preprocessors, Less and Sass. You will also learn the basics of Node.js and NPM and task runners like Grunt and Gulp. At the end of this course, you will be able to a)Set up, design and style a web page using Bootstrap 4 and its components, b) Create a responsive web page design, and c) Make use of web tools to setup and manage web sites. This course also includes an honors track that enables you to work on your own project developing a website using Bootstrap 4. Students enrolling in this course should have prior good working knowledge of HTML, CSS and JavaScript.

Course 2

Front-End Web Development with React

About this course:

This course explores Javascript based front-end application development, and in particular the React library (Currently Ver. 16.3). This course will use JavaScript ES6 for developing React application. You will also get an introduction to the use of Reactstrap for Bootstrap 4-based responsive UI design. You will be introduced to various aspects of React components. You will learn about React router and its use in developing single-page applications. You will also learn about designing controlled forms. You will be introduced to the Flux architecture and Redux. You will explore various aspects of Redux and use it to develop React-Redux powered applications. You will then learn to use Fetch for client-server communication and the use of REST API on the server side. A quick tour through React animation support and testing rounds off the course. You must have preferably completed the previous course in the specialization on Bootstrap 4, or have a working knowledge of Bootstrap 4 to be able to navigate this course. Also a good working knowledge of JavaScript, especially ES 5 is strongly recommended. At the end of this course you will: - Be familiar with client-side Javascript application development and the React library - Be able to implement single page applications in React - Be able to use various React features including components and forms - Be able to implement a functional front-end web application using React - Be able to use Reactstrap for designing responsive React applications - Be able to use Redux to design the architecture for a React-Redux application

Course 3

Multiplatform Mobile App Development with React Native

About this course:

This course focuses on developing truly cross-platform, native iOS and Android apps using React Native (Ver 0.55) and the Expo SDK (Ver. 27.0.0). React Native uses modern JavaScript to get truly native UI and performance while sharing skills and code with the web. You will learn about UI development with React Native UI and layout support and access the native mobile platform's capabilities from Javascript using the Expo SDK. You should have already completed the Bootstrap 4 and the React courses in this specialization before proceeding with this course. At the end of this course you will be able to (a) Build mobile applications targeting multiple platforms with a single codebase, (b) Leverage your React and Javascript skills, (c) Use various features of React Native and the Expo SDK to build truly cross-platform mobile applications, and (d) Use Redux to design the architecture for a React-Redux application

Course 4

Server-side Development with NodeJS, Express and MongoDB

About this course:

This course deals with all things server-side. We base the entire course around the NodeJS platform. We start with a brief overview of the Web protocols: HTTP and HTTPS. We examine NodeJS and NodeJS modules: Express for building web servers. On the database side, we review basic CRUD operations, NoSQL databases, in particular MongoDB and Mongoose for accessing MongoDB from NodeJS. We examine the REST concepts and building a RESTful API. We touch upon authentication and security. Finally we review backend as a service (BaaS) approaches, including mobile BaaS, both open-source and commercial BaaS services. At the end of this course, you will be able to: - Demonstrate an understanding of server-side concepts, CRUD and REST - Build and configure a backend server using NodeJS framework - Build a RESTful API for the front-end to access backend services