BOARD INFINITY

COURSE 3 OF 3 · BUILDING REACT AND ASP.NET MVC 5 APPLICATIONS SPECIALIZATION

Building React Application using ASP.NET MVC5

Full course syllabus - every module, video lesson, reading and assignment, from ASP.NET Core MVC and Entity Framework to a Web API consumed by React.

Board Infinity
Instructor · Offered on Coursera

3	65	13	2 weeks
Modules	Video lessons	Assignments	At 10 hours a week

INSIDE THE COURSE

01	ASP.NET Core	6 hours to complete
02	ASP.NET MVC	5 hours to complete
03	ASP.NET Web API	8 hours to complete

Enroll on Coursera

https://www.coursera.org/learn/react-mvc-app

01 ABOUT THE COURSE

From MVC to a React front end.

Building React Application using ASP.NET MVC5 teaches developers how to build scalable and efficient web applications with the React JS library and the ASP.NET MVC framework. Across three modules you build MVC applications with ASP.NET Core, add data access and security with Entity Framework Core and Identity, then design a RESTful Web API and consume it from React.

Everything is delivered through short video lessons and live demos, readings and graded quizzes - 65 videos, 11 readings and 13 assignments in all - and the course ends with a peer-reviewed project: a React application built on ASP.NET. It is the third course of the Building React and ASP.NET MVC 5 Applications specialization and is pitched at intermediate level.

WHO IT'S FOR

React developers
Who want a solid ASP.NET back end behind their user interfaces.

.NET developers
Who know ASP.NET and want to add a modern React front end.

Full-stack learners
Finishing the specialization after ASP.NET Core Foundation and React Fundamentals.

Web developers
With prior React experience and familiarity with ASP.NET technologies.

WHAT YOU'LL LEARN

01 **Build ASP.NET Core MVC apps** Module 1
Use the MVC pattern, Razor views, routing, state management and validated forms

02 **Add data and security** Module 2
Configure middleware and dependency injection, Entity Framework Core and Identity

03 **Ship a Web API with React** Module 3
Design RESTful APIs, test them with Postman and consume them from a React application

02 SYLLABUS

Three modules, one full-stack app.

2 weeks to complete at 10 hours a week. Flexible schedule - learn at your own pace.

01 ASP.NET Core

MVC pattern, Razor views, routing, state and forms

6 hours
27 videos

BY THE END OF THIS MODULE YOU CAN

- Explain ASP.NET Core and its project folder structure
- Apply the MVC pattern and model-view-controller communication
- Build views with Razor, layouts, Tag Helpers and routing
- Pass data, manage state and build validated forms with model binding

CONTENTS: 27 videos (148 min) · 4 readings (100 min) · 4 assignments (105 min) · 1 plugin (5 min)

TOPICS: MVC pattern · Razor view engine · Routing · ViewBag, ViewData & TempData · Sessions · Forms & model binding · Validation

You'll leave with: a working ASP.NET Core MVC web application with routed pages, shared layouts and validated forms.

02 ASP.NET MVC

Pipeline, Entity Framework Core and security

5 hours
17 videos

BY THE END OF THIS MODULE YOU CAN

- Configure the middleware request pipeline, built-in and custom
- Use dependency injection, environments, exception handling and logging
- Manage data with Entity Framework Core, code first and database first
- Secure apps with authentication, authorization and Identity Core

CONTENTS: 17 videos (89 min) · 3 readings (90 min) · 4 assignments (105 min)

TOPICS: Middleware pipeline · Dependency injection · Entity Framework Core · CRUD operations · Authentication & authorization · Identity Core

You'll leave with: a data-driven MVC application with Entity Framework Core CRUD operations and Identity-based security.

03 ASP.NET Web API

RESTful services, routing and a React front end

8 hours
21 videos

BY THE END OF THIS MODULE YOU CAN

- Explain SOA, REST and where ASP.NET Web API fits compared with WCF
- Build a Web API with full CRUD operations and test it with Postman
- Configure routing, route constraints, content negotiation and formatters
- Consume the API from ASP.NET MVC and a React component, and render the data

CONTENTS 21 videos (120 min) · 4 readings (100 min) · 5 assignments (120 min) · 1 peer review (120 min)

PROJECT Building a React Application using ASP.NET MVC5 - peer-reviewed (120 min)

TOPICS SOA & REST · Web API vs WCF · CRUD operations · Testing with Postman · Routing & route constraints · Content negotiation · React components · Consuming APIs

You'll leave with: a RESTful ASP.NET Web API and a React front end that consumes and renders its data - submitted as your peer-reviewed project.

03 TOOLS & SKILLS

The tools that run through the course.

ASP.NET Core MVC

Core framework

The model-view-controller framework your application is built on: controllers, Razor views, routing and forms.

In this course: Module 1 builds the MVC foundations; module 2 adds middleware, dependency injection and logging.

Entity Framework Core

Data layer

The ORM that connects your application to its database, with code-first and database-first approaches.

In this course: CRUD operations, plus authentication, authorization and ASP.NET Core Identity.

ASP.NET Web API & Postman

APIs

RESTful services with routing, route constraints, content negotiation and media type formatters.

In this course: Build a CRUD Web API, test it in Postman and consume it from ASP.NET MVC.

React

Front end

The JavaScript library that turns your API's data into a dynamic user interface.

In this course: Configure React components, consume the Web API and render its data in the final project.

SKILLS YOU LEAVE WITH

Back-end MVC

- MVC pattern & routing
- Razor views & Tag Helpers
- Middleware & dependency injection
- Forms, binding & validation

Data & security

- Entity Framework Core
- Code first & database first
- Authentication & authorization
- ASP.NET Core Identity

APIs & React

- RESTful API design
- Content negotiation
- API testing with Postman
- Consuming APIs in React

04 CERTIFICATE & CAREER

Finish with a shareable certificate.

Add it to LinkedIn
Add this credential to your LinkedIn profile, resume, or CV.

Share it anywhere
Share it on social media and in your performance review.

Earned, not attended
Awarded on completion of the 13 graded assignments and the peer-reviewed project.

Course 3 of 3
The final course of the Building React and ASP.NET MVC 5 Applications Specialization.

ROLES THE COURSE SUPPORTS

Full-Stack .NET Developer · ASP.NET Core Developer · Back-End API Developer · React Developer · Web Application Developer · Software Engineer

Board Infinity
Instructor · Offered on Coursera

Intermediate level · Taught in English · Flexible schedule

Ready to build your full-stack application?

Enrollment, lessons, grading and the certificate all happen on Coursera.

Enroll on Coursera

Course page: coursera.org/learn/react-mvc-app

Want a coach alongside the course?

Board Infinity 1:1 coaching is a separate, optional Board Infinity offering - it is not part of the Coursera course.
Details: https://www.boardinfinity.com/career-coaching/

Board Infinity is an independent education provider. Coursera and the Coursera logo are trademarks of Coursera, Inc. This course is not affiliated with, endorsed by, sponsored by, or officially associated with Microsoft Corporation, Meta, or any of their subsidiaries or affiliates. All trademarks are the property of their respective owners.