



## Advanced NextJS

- N Days
- Lecture and Hands-on Labs

### Course Overview

Course overview paragraph goes here. Note in the “Hands On Labs” section, we now use the `{{#include SUMMARY.md:20:}}` tag to import lines 20 (inclusive) and beyond from within `SUMMARY.md`

Review this course online at <https://www.alta3.com/courses/00-template>

### Who Should Attend

This class is targeted for ...


### What You'll Learn

You will learn essential microservices concepts including:

- Concept #1
- Concept #2
- Concept #3
- Concept #4
- Concept #5
- Concept #6







### Outline






THIS IS THE OPTUM CUSTOM BUILT 3 DAY COURSE. FOR THE PUBLIC NEXT JS COURSE GO TO DIRECTORY nextjs->

- Welcome to Alta3 Live
-  Lecture + Lab: Register for Poll









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- Vim: A Modal Text Editor
  - Efficient CLI Usage with Tmux
  - Revision Control with GitHub
  - .gitignore with NextJS Projects

#### Day 1: Foundations and Core Concepts











-  Lecture + Lab: Introduction to Next.js and Setup
-  Lecture: Advanced React Features in Next.js
-  Lecture + Lab: Advanced React Features in Next.js Lab
-  Lecture: Next.js Routing and Navigation
-  Lecture + Lab: Next.js Routing and Navigation Lab
-  Lecture + Lab: Data Fetching Strategies

-  Lecture: Server-Side Rendering (SSR) and Static Site Generation (SSG)-and-static-site-generation-(ssg).md)
-  Lecture + Lab: Advanced SSR and SSG Techniques
-  Lecture: State Management in Next.js
-  Lecture + Lab: State Management Deep Dive Context API vs Redux in Next.js
-  Lecture + Lab: Custom Image Optimization Component

#### Day 2: Advanced Features and Optimizations

-  Lecture + Lab: Advanced State Management
-  Lecture + Lab: API Handling and Data Integration in Next.js
-  Lecture + Lab: Advanced API Integrations with Apollo
-  Lecture + Lab: GraphQL Integration with Server-Side Rendering
-  Lecture + Lab: Authentication and Authorization
-  Lecture + Lab: Server-Side Caching Strategies
-  Lecture + Lab: Real-Time Data with Next.js and WebSockets
-  Lecture + Lab: Error Handling and Logging

#### Day 3: Scaling and Advanced Architectures

-  Lecture + Lab: Hot Swapping Virtual DOMs
-  Lecture + Lab: Using App Router
-  Lecture: Testing in Next.js
-  Lecture + Lab: Testing in Next.js Lab
-  Lecture: Lecture on Microfrontend Architecture and re-usable components
-  Lecture + Lab: Reusable Components and React.forwardRef
-  Lecture + Lab: Next.js Multi Zones
-  Lecture + Lab: Monorepo Setup with Turborepo
-  Lecture + Lab: Advanced SEO and Analytics
-  Lecture + Lab: Using 3rd Party Libraries and Reusable Components

#### Prerequisites

#### Next Courses

Course 1 Course 2