

Angular Bootcamp

Cohort 02: October 2022 — February 2023

General Information

Start date:	October 2022
Course duration:	4–5 months
Sessions:	Online On every workday 6–8 hours per day
Language:	Georgian
Price:	Free
Top graduates:	1-year job offer from Omedia with a salary of 2,000 GEL minimum. Offer refusal results in an education fee of 4,000 GEL.

Prerequisites

Here are the eligibility criteria for Omedia Bootcamp's Angular Bootcamp course. All applicants should:

- ✓ Be 16 years of age or older.
- ✓ Have the time and the motivation to boost their skills and experience.
- ✓ Have access to an internet-connected desktop or a laptop computer.

- ✓ Have decent English language skills (ability to read and understand the technical documentation and articles in English, ability to communicate with colleagues).
- ✓ Have experience with the basics of computer programming.
- ✓ Be comfortable with HTML and CSS.
- ✓ Understand and have experience with basic JavaScript. More specifically:
 - ✓ Statements, variables, operators, and functions.
 - ✓ Data types.
 - ✓ Conditions and loops.
 - ✓ Basics of events.
 - ✓ HTML DOM.

Full Course Syllabus

01. Tooling & Environment

Before you start learning a framework, writing code or working on a complex application, it is crucial to become comfortable with all the tools and environments around the technology you are going to use. This module will introduce students with basics of Linux and shell, with coding environments and tooling related to JavaScript and Angular.

- Linux & shell
- Git
- IDEs
- Containers and Docker
- Building a JavaScript Development Environment
- JavaScript Environment Tooling
- Jira, BitBucket, Confluence
- Bamboo

02. Markup & Interface Building

Some developers might not like working with the markup at all, but the knowledge of bare-bones HTML and CSS is instrumental to the in-depth understanding of different tools and frameworks used daily in modern web app development.

- HTML
- Modern CSS
- CSS Preprocessors (SASS)
- CSS Frameworks (Bootstrap)
- CSS Methodologies (BEM)
- UI Libraries (Bootstrap, Material, Nebular)
- Accessibility on the Web

03. JavaScript & TypeScript

Although some knowledge of JavaScript programming is the prerequisite of this bootcamp, it

- JavaScript Fundamentals
- The Recent Parts

is important to truly understand the foundations and advanced topics of JavaScript and TypeScript. This module prepares students for learning the Angular framework.

- Sync & Async
- Introduction to TypeScript
- Basic Data Types
- Advanced Data Types

04. Angular Framework

This module is the core part of the course. Students will learn the structure of Angular, its core parts and will be able to use them in various small- and medium-sized projects.

- Components, Directives, and Pipes
- Dependency Injection and Services
- Communication Between Components
- Angular Animations and Styling
- HTTP, Data Fetching
- REST API
- GraphQL
- JSON:API
- Forms
- Routing
- Change Detection
- Real-Time Communication

05. Advanced Topics

In this module, students will be challenged with advanced topics, like a reactive paradigm, state management, authentication, and many more. During this module, students will work on different mini projects related to the topics as well as on complex web applications.

- RxJS and Reactive Paradigm
- State Management
- Authentication and Authorization, JWT
- External Integrations (Google Maps, Recaptcha, Twilio, Mailchimp, Social Auth)
- Micro-frontends
- Best Practises and Performance Optimization
- Testing
- Deploying Angular Applications

06. System Design Basics

We believe that knowing a single framework or a programming language is never enough. Being able to understand a broader range of topics around the technology and the ability to always see the big picture, is what makes one a successful engineer. That is why students will learn the fascinating world of systems design in our last module.

- Basics of networking
 - Domain name system
 - Databases
 - Message queues
 - Logging systems
 - Performance and scalability
 - Latency and throughput
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- Caching
 - CDNs, load balancers and reverse proxies
 - Consistency and availability patterns
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