



Back-End Web Development Overview

6 months (20 hrs / week)

What is Back-End Web Development?

- A meticulously crafted 18-week journey designed to turn learners from novices into job-ready developers.
- Experience hands-on, practical learning for real-world application that covers essential web technologies, modern back-end frameworks, and key languages like Javascript, Node.js, and Python
- As a back-end developer, you're like the electrician of a website, ensuring the essential connections behind the scenes for proper functionality and contributing vitally to the success of digital platforms.

Why Back-End Web Development?

The relevance of the programme is highlighted by its alignment with the growing industry demand for skilled back-end developers, addressing the rising complexity of businesses and applications. With an industry-standard capstone project, learners receive expert mentorship from experienced software engineers and programme alumni, fostering a supportive learning environment and providing valuable industry insights.

Programme Objectives

- Basic proficiency in back-end languages like Python, Node.js, and Express.js
- Database management with SQL (e.g., MySQL) and NoSQL (e.g., MongoDB) databases
- REST API, Authentication, and other back-end concepts
- How to build a basic, functional web application from the ground up
- To problem-solve based on real-world scenarios

What makes this programme unique?

Hands-on Learning

The programme emphasises practical application through industry-standard project-based learning, enabling learners to apply theoretical knowledge directly to real-world scenarios for a deep understanding of concepts.

Mentor Support

Offers mentorship from seasoned engineers and alumni, providing valuable insights and support that enhance the learning journey with a direct link to real-world experiences and industry best practices.

Comprehensive Curriculum

Covering a broad spectrum of back-end technologies and best practices ensuring participants develop a well-rounded skill set for job readiness.

Weekly Foundations Schedule

11-15 Weeks (30-40hrs / week)

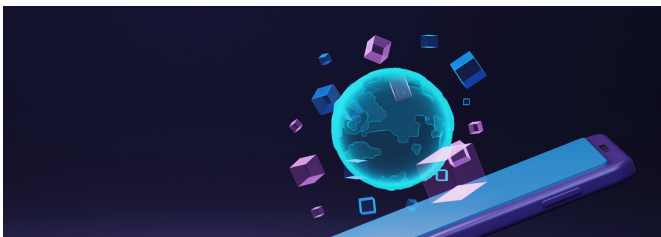
What is ALX Foundations?

- A career-readiness training module to kick-start your ALX learning journey before moving on to your chosen specialisation.
- Learn exceptional communication, teamwork, and leadership skills that make ALX graduates top picks in the job market.
- Be ready for a real-world career with soft skills that keep you ahead in the rapidly changing tech industry.
- Become a well-rounded professional by sharpening your strong points, developing growth areas, and connecting your career path with a purposeful mission.

8 Key Meta Skills

1. **Leading Self**
2. **Leading Others**
3. **Critical Thinking**
4. **Entrepreneurial Thinking**
5. **Quantitative Reasoning**
6. **Communicating for Impact**
7. **Managing Complex Tasks**
8. **Navigating Tech Ecosystems**

Weekly Content



Week 01 – 05: Self Improvement

- Google Suite
- Work Planning & Resource Allocation
- Ethics & Integrity
- Global Challenges/ Opportunities
- Problem Definition and Structuring
- Research & Authentic Enquiry

Week 06 – 10: Group Problem Solving

- Data Contextualisation
- Uncertainty & Modelling in the Real World
- Quantitative Problem Solving
- Understanding the User/Market
- Creating Solutions & Prototyping
- Data Based Decision Making

Weeks 11 – 15: The World of Tech

- Tech Specialisation Introductions
- Identifying Opportunities
- Tech Teams Structures
- Industry Specific Recruiting
- Bio, Website, Portfolio & Pitch

Week 16 onward: alongside – and for the same duration as – your tech track

- The Game of Employment
 - Career Readiness
 - Cover Letters | Resumes | LinkedIn
 - Interviewing & Negotiating
- Revamped Bio, Website and Portfolio
- Networking
- AI & The Future of Work
- Test Taking Strategies

Weekly Specialisation Schedule

- **Project releases:** Projects are released on Saturdays and ends by end of Thursdays
- **Live learning sessions:** Twice weekly live learning sessions. Learners will be introduced to the projects for the coming week during the first session and then there will be a deep dive into the concepts during the second session.
- **Peer learning days:** There is a dedicated day for learners to connect with one another and study together.

Weekly Content

Week 00 – Onboarding & Fundamentals of the web

Week 01 – Version Control

Week 02, 03 & 04 – Python

Week 05 & 06 – Python & Databases

Week 07 & 08 – Python Web Framework

Week 9, 10, 11, & 12 – Javascript & Node JS



Week 13 – RESTFUL APIs & Express JS

Week 14 – NoSQL databases and Authentication

Week 15 – Express JS project

Week 16 & 17 – Capstone Project

