



ROLASOFT PROFESSIONAL COMPUTER & IT
COURSES VERSION 2.0 LATEST

Software Engineering (Top-Up)

*Become a job-ready Software Engineering in
two (2) years!*

Benefits of Studying Software Engineering with RolaSoft

✓ 1. Industry-Relevant Curriculum

Stay ahead with a syllabus designed by industry experts, focused on real-world scenario.

✓ 2. Hands-On Training

Learn by doing — build real-time projects, develop applications, and gain practical coding experience.

✓ 3. Experienced Instructors

Gain insights from certified professionals and senior software engineers with years of teaching and industry experience.

✓ 4. Placement Assistance

Access job support services including resume building, mock interviews, and direct placement opportunities with partner companies.

✓ 5. Flexible Learning Modes

Choose between: **Online**, **Offline (at our center)**, or **Hybrid Classes**

Benefits of Studying Software Engineering with RolaSoft

✓ 6. Mini & Major Projects

Work on individual and group projects to strengthen your portfolio and impress future employers.

✓ 7. Certification Upon Completion

Earn a **Professional Diploma** from RolaSoft Technologies, recognized by IT recruiters and employers.

✓ 8. Small Batch Size

Personalized attention and better interaction in small groups for an enhanced learning experience.

✓ 9. Affordable Fees & Installment Plans

Top-tier training at a reasonable cost, with flexible payment options.

✓ 10. Career-Oriented Skills You'll Gain at RolaSoft Technologies

RolaSoft ensures you're job-ready with the right tech stack and practical knowledge.

Software Engineering (Top-Up) Course Details



Duration

Two (2) Years (6 Semesters-4 Months Per Semester) - Full-Time Program



Schedule

Weekdays / Weekends



Learning Modes

Online, Offline (at our center), or Hybrid Classes



Start Date

January, April, July and October — enroll now!



Eligibility

No prior experience required

Software Engineering (Top-Up) Prerequisites

- ✓ Basic knowledge of mathematics and logical reasoning
- ✓ No prior programming experience is required, but familiarity with computers is helpful

Two-Year Software Engineering Program – Program Details

Program Overview

The **Software Development** course at ***Rolasoft Technologies*** is a comprehensive two-year program designed to equip students with the knowledge and skills needed to become proficient software developers. This course provides a deep dive into core programming languages, web development, mobile app development, software engineering practices, and database management.

Throughout the program, students will learn to develop both **front-end** and **back-end** solutions, work with industry-leading development tools and technologies, and gain practical experience through hands-on projects. Graduates of this course will be prepared to pursue careers in software development, with roles such as **Software Developer**, **Full Stack Developer**, **Mobile Application Developer**, and **Database Administrator**.

Who Should Take This Software Engineering Program(Top-Up)?

Who Should Take This Software Engineering Program?

- ✓ Aspiring software developers who want to learn full-stack development
- ✓ IT professionals seeking to expand their knowledge into software development
- ✓ Students interested in building mobile apps and web-based software solutions
- ✓ Anyone looking to pursue a career in programming, software engineering, or related fields

Year 1: Fundamentals of Software Development

Semester 1: Introduction to Programming & Computer Science Basics

✓ Overview of Software Development

(The Software Development Lifecycle (SDLC), Agile and Waterfall Methodologies)

✓ Introduction to Programming with Python, C# or Java

(Variables, Data Types, and Operators, Control Structures (if-else, loops), Functions and Recursion, Arrays and Strings)

✓ Computer Science Basics

(Understanding Algorithms and Problem Solving, Introduction to Data Structures e.g. Stacks, Queues, Linked Lists)

✓ Project: Build a simple console application in Python, C# or Java

✓ Qualification Awarded : Certificate in Software Engineering (Level 1)

Year 1: Fundamentals of Software Development

Semester 2: Object-Oriented Programming (OOP) and Web Development Basics

- ✓ **Introduction to Object-Oriented Programming (OOP) in Python, C# or Java**
(Classes, Objects, Methods, and Attributes, Encapsulation, Inheritance, and Polymorphism, Exception Handling, File Handling)
- ✓ **Introduction to HTML, CSS, and JavaScript**
(Building Simple Web Pages with HTML5, Styling Websites using CSS, Introduction to JavaScript: Functions, Loops, Events)
- ✓ **Introduction to Version Control with Git**
(Setting up a Git Repository, Committing, Pushing, and Pulling Changes, Branching and Merging)
- ✓ **Project:** Create a static website with HTML, CSS, and JavaScript
- ✓ **Qualification Awarded : Certificate in Software Engineering (Level 2)**

Year 1: Fundamentals of Software Development

Semester 3: Advanced Programming and Database Management

✓ Advanced Python, C# or Java

(JavaFX Basics: Stages, Scenes, and Controls, Tkinter, Window Form, Swing)

✓ Introduction to Databases and SQL

(Relational Databases and DBMS Concepts, Creating Tables, Writing SQL Queries (SELECT, INSERT, UPDATE), Normalization and Relationships between Tables)

✓ Web Development with PHP

(PHP Syntax, Variables, and Functions, Working with Forms and User Input, Introduction to MySQL with PHP)

✓ **Project:** Build a CRUD web application using PHP and MySQL

✓ **Qualification Awarded : Ordinary Diploma in Software Engineering**

Year 2: Advanced Software Development Techniques

Semester 4: Full Stack Web Development

✓ Front-End Development with React.js

(Introduction to React and JSX, Creating Functional Components and Managing State, Routing in React with React Router)

✓ Back-End Development with Node.js

(Building RESTful APIs with Express.js, Handling Requests, Responses, and Middleware, Integrating Node.js with Databases (MongoDB or MySQL))

✓ Introduction to Web Security

(Authentication and Authorization, Secure Coding Practices (SQL Injection, XSS, CSRF))

✓ Project: Build a full-stack web application using React.js, Node.js, and MongoDB

✓ Qualification Awarded : Advanced Diploma in Software Engineering

Year 2: Advanced Software Development Techniques

Semester 5: Mobile Application Development

✓ Introduction to Mobile Development with Kotlin (Android)

(Setting up Android Studio and Emulators, User Interface Design (Layouts, Views, Buttons, etc.), Working with APIs and Databases in Android)

✓ Introduction to Cross-Platform Development with Flutter

(Setting up Flutter and Dart, Widgets, Navigation, and State Management in Flutter, Integrating Flutter Apps with Firebase)

✓ Mobile App Security

(Protecting User Data and App Security Best Practices, Secure Data Storage and Encryption)

✓ Project: Develop a basic mobile application using Kotlin for Android or Flutter

✓ Qualification Awarded : Professional Diploma in Software Engineering

Year 2: Advanced Software Development Techniques

Semester 6: Software Engineering & Advanced Topics

✓ **Software Engineering Principles**

(Requirements Gathering and Software Design Patterns, Unit Testing and Test-Driven Development (TDD), Continuous Integration and Deployment (CI/CD))

✓ **Advanced Topics in Software Development**

(Cloud Computing Concepts (AWS, Azure, Google Cloud), Introduction to Microservices Architecture, Performance Optimization and Scalability in Web Apps)

✓ **Soft Skills and Career Preparation**

(Resume Building and Interview Preparation, Professional Communication and Team Collaboration)

✓ **Project:** Complete a full-scale software project (web, mobile, or desktop app)

✓ **Qualification Awarded : Higher Diploma in Software Engineering**

Tools & Technologies Used

Tools & Technologies Used for Software Engineering Course are:

- ✓ **Programming Languages:** C, C++, JavaScript, PHP, Kotlin, Dart, SQL
- ✓ **Web Development:** HTML, CSS, JavaScript, React.js, Node.js, Express.js, MySQL, MongoDB
- ✓ **Mobile App Development:** Kotlin (Android), Flutter
- ✓ **Version Control:** Git, GitHub
- ✓ **Databases:** MySQL, MongoDB, Firebase
- ✓ **Cloud Platforms:** AWS, Google Cloud, Microsoft Azure

Final Capstone Project (End of Year 2)

Students will complete an **industry-level project** in Software Engineering:

- ✓ Complete a full-scale software project (web, mobile, or desktop app)

Software Engineering Learning Outcomes

By the end of this course, students will be able to:

- ✓ Master multiple programming languages including **Java, C# and Python**
- ✓ Build full-stack web applications using **React.js** for front-end and **Node.js** for back-end development
- ✓ Develop mobile applications for Android using **Kotlin** and cross-platform apps with **Flutter**
- ✓ Understand and implement **database management** and **SQL**
- ✓ Use version control tools like **Git** for collaborative development
- ✓ Apply **software engineering principles** for designing and testing scalable software solutions
- ✓ Successfully implement software projects from requirements gathering to deployment
- ✓ Be well-prepared for entry-level software development roles and internships

Certifications Obtain

Upon successful completion, students will receive a **Higher Diploma in Software Engineering** from Rolasoft Technologies.

Higher Diploma in Software Engineering

The program also prepares students for industry certifications such as:

- ✓ Oracle Certified Java Programmer (OCJP)
- ✓ Python Institute Certifications (PCAP, PCEP)
- ✓ Microsoft Certified: Azure Developer Associate
- ✓ Google Associate Android Developer
- ✓ AWS Certified Developer – Associate
- ✓ Certified Software Development Professional (CSDP)

Software Engineering Career Opportunities

Graduates can pursue careers as:

- ✓ Software Engineer / Developer
- ✓ Web Developer (Frontend/Backend/Full Stack)
- ✓ Mobile App Developer
- ✓ Data Scientist / AI Engineer
- ✓ Database Administrator

Rolasoft Technologies Services

Rolasoft Technologies – Services Offered

✓ **SOFTWARE DEVELOPMENT COMPANY**

(MOBILE APPLICATION, WEB APPLICATION, DESKTOP APPLICATION, CUSTOMIZED APPLICATION, E-COMMERCE WEBSITE)

✓ **PROFESSIONAL COMPUTER AND IT EDUCATION**

(TOP-UP PROGRAMS, DIPLOMA PROGRAMS, CERTIFICATE PROGRAMS, TECH @ SCHOOL, CORPORATE PROGRAMS, SIWES PROGRAMS, CUSTOMIZED PROGRAMS)

✓ **DIGITAL ADVERTISING AND BUSINESS BRANDING**

(SOCIAL MEDIA MARKETING, EMAIL MARKETING, CONTENT MARKETING, WEBSITE SEO, BRANDED CLOTHING, STICKERS AND TAG, CUSTOM BRANDING, AND MANY MORE)

✓ **INTERNATIONAL UNIVERSITY ADMISSION PROCESSING**

(AMERICA, UK, CANADA, EUROPE, AFRICA, AND MANY MORE)

Contact & Registration

 Phone: +234 8032867212, +234 8082171242

 Email: info@rolasofttech.com

 Website: www.rolasofttech.com

 Address: 2, Martins Street Off Ojuelegba Road, Yaba,
Lagos State. Nigeria.



Enroll Today & Start Your Software Engineer Journey!
Build your future with Software Engineering.