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Development

Development

Agile Software Development, Software Development Lifecycle (SDLC) and DevOps practices.

[DevOps Architecture](#) [Computer Programming](#) [Software testing](#)

In **Application Lifecycle Management (ALM)**, **development** refers to the process of creating and building software applications. This includes activities such as designing, coding, testing, and debugging software. The development phase is typically the longest phase in the ALM process and involves collaboration between developers, testers, and other stakeholders to ensure that the software meets the requirements and is of high quality.

In **DevOps**, **development** refers to the process of building and releasing software in a fast and efficient manner. DevOps emphasizes the integration of development and operations teams to create a culture of collaboration and continuous improvement. The development phase in DevOps involves a focus on creating software that is modular, reusable, and automated, so that it can be quickly and easily deployed into production.

In both **ALM and DevOps**, **the development phase is critical to the success** of the software project. In ALM, a well-planned and executed development phase can ensure that the software meets the business needs and is of high quality. In DevOps, a well-executed development phase can ensure that software is released quickly and reliably, with minimal errors or issues. Ultimately, the success of the development phase depends on effective collaboration and communication between all stakeholders involved in the software project.

Software Development:

- [Full Stacks \(Software Bundles\)](#)
- [Application Stacks](#)
 - [SharePoint](#)
 - [iOS](#), [Wordpress](#), [SAP](#), etc.
- [Programming Languages](#)
- [List of IDEs](#)
- [Web Technologies](#)
- [Web Development](#)
- [Mobile Development](#)
- [Software design pattern](#)
- [Data Structures](#)

Programming Languages Full Stacks (Software Bundles)



Video

Source: [YouTube](#)

Software Development RSS

Snippet from [Wikipedia](#): **Software development process**

In software engineering, a **software development process** or **software development life cycle (SDLC)** is a process of planning and managing software development. It typically involves dividing software development work into smaller, parallel, or sequential steps or sub-processes to improve design and/or product management. The methodology may include the pre-definition of specific deliverables and artifacts that are created and completed by a project team to develop or maintain an application.

Most modern development processes can be vaguely described as agile. Other methodologies include waterfall, prototyping, iterative and incremental development, spiral development, rapid application development, and extreme programming.

A life-cycle "model" is sometimes considered a more general term for a category of methodologies and a software development "process" is a particular instance as adopted by a specific organization. For example, there are many specific software development processes that fit the spiral life-cycle model. The field is often considered a subset of the systems development life cycle.

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Development Areas

- Web Development
- Mobile Development
- Desktop Development
- Game Development

- Cloud Development
- Artificial Intelligence (AI) Development
- DevOps
- Database Development
- Embedded Systems Development
- Open Source Development
- E-commerce Development
- Augmented Reality (AR) and Virtual Reality (VR) Development
- Blockchain Development
- Internet of Things (IoT) Development
- Security Development
- Business Process Automation (BPA) Development
- Data Science and Analytics Development
- Cloud Infrastructure Development
- Chatbot Development
- Educational Software Development
- Artificial Neural Network (ANN) Development
- Augmented Analytics Development
- Business Intelligence (BI) Development
- Citizen Development
- Cloud-Based Development
- Customer Experience (CX) Development
- Cybersecurity Software Development
- Digital Marketing Software Development
- Electronic Medical Record (EMR) Development
- Enterprise Resource Planning (ERP) Development
- Geographic Information System (GIS) Development
- Identity and Access Management (IAM) Development
- Knowledge Management Software Development
- Low-code Development
- Machine Learning (ML) Development
- Natural Language Processing (NLP) Development
- Robotic Process Automation (RPA) Development
- Social Media Management Software Development
- Speech Recognition Software Development
- Virtual Assistant Development
- Big Data Development
- Cloud-Native Development
- Computational Fluid Dynamics (CFD) Development
- Content Creation and Management Software Development
- Digital Asset Management (DAM) Software Development
- Electronic Design Automation (EDA) Development
- Energy Management Software Development
- Enterprise Content Management (ECM) Development
- Financial Planning and Analysis (FP&A) Software Development
- Fleet Management Software Development
- Gaming Software Development
- Geospatial Software Development
- Information Security Software Development
- Machine Vision Software Development
- Medical Imaging Software Development

- Network Management Software Development
- Point of Sale (POS) Software Development
- Procurement Software Development
- Public Safety Software Development
- Scientific Computing Software Development
- Ad Tech Software Development
- Agriculture Software Development
- Automated Trading Software Development
- ChatOps Development
- Clinical Trial Management Software Development
- Construction Software Development
- Contract Lifecycle Management (CLM) Software Development
- Crowdfunding Software Development
- Customer Service Software Development
- Data Visualization Software Development
- Digital Twin Development
- E-learning Software Development
- Electronic Health Record (EHR) Development
- Email Marketing Software Development
- Environmental Health and Safety (EHS) Software Development
- Facility Management Software Development
- Field Service Management Software Development
- Food and Beverage Management Software Development
- Fraud Detection Software Development
- Gaming Engine Development
- Geolocation Software Development
- Healthcare Claims Management Software Development
- Home Automation Software Development
- Hotel Management Software Development
- Insurance Claims Management Software Development
- Legal Practice Management Software Development
- Logistics and Delivery Management Software Development
- Marine Navigation Software Development
- Media Buying and Planning Software Development
- Music and Audio Production Software Development
- Network Security Software Development
- Online Booking and Scheduling Software Development
- Payment Processing Software Development
- Predictive Maintenance Software Development
- Process Automation Software Development
- Public Relations Software Development
- Real-time Operating System (RTOS) Development
- Remote Desktop Software Development
- Restaurant Management Software Development
- Robotic Simulation Software Development
- ...

DevOps

See [DevOps Definitions](#) and [DevOps](#)

[DevOps](#) [DevOps Toolchain](#)

DevOps Roadmap

- [DevOps](#)
- [Toolchain](#)
- [Roadmap](#)
- Stages
 - [Plan](#)
 - [Create](#)
 - [Verify](#)
 - [Packaging](#)
 - [Release](#)
 - [Configure](#)
 - [Monitor](#)



Fix Me!

TBD - How to master and learn DevOps...

DevOps Roadmap

Programming Languages

- [C++](#), [C#](#), [JavaScript](#), [Python](#)
 - [Application Stacks](#)
- [Full Stacks \(Software Bundles\)](#)

Server Administration

- [Linux](#)
- [Windows](#)

Network & Security

- [Computer Networking](#)
 - NOC
 - [OSI model](#)
 - [AI security](#)

Servers

- Web Servers
 - IIS
 - Apache
- Databases
 - SQL
 - Microsoft SQL
 - NoSQL

Infrastructure as Code

- Configuration Management
 - [Puppet](#)
 - [Chef](#)
- Containers
- Contrainer Orchistrators
- Infrastructure Provisioning
 - [GitOps](#)

CI/CD

- [CI/CD](#)
- [Jenkins](#)

Monitoring and Logging

- Monitoring
 - [DevOps Monitor](#)
 - [New Relic](#)
- Logging

Cloud Computing

- [AWS](#)
- [Azure](#) | [Azure DevOps](#)

...

[→ Read more...](#)

[devops](#), [roadmap](#), [devx](#)

SDLC

Software Development Lifecycle , see [SDLC](#)

Citizen Development

- [Low-code development](#)
- [Shadow IT](#)
- [AI supported development](#)
- [Citizen Developer](#)
- [Citizen Development](#)
- [Fusion development](#)

Agile Software Development

See [Agile software development](#)

Software Architecture

- [Modeling \(UML, ERD etc.\)](#)
- [Architecture](#)
 - [Solution Architecture](#)
 - [System Architecture](#)
 - [Software Architecture](#)
- [Software design pattern](#)

Technical debt

- [Code Quality](#)
- [Technical debt](#)
- Continuous Inspection (Monitoring)
- Quality Gates
- Style Cop
- [SonarQube](#)

Database Development

- SQL
- MySQL
- MongoDB
- Oracle SQL
- SQL Server
- [Apache Kafka](#)
- Database Management
- Database Programming
- ...

Disciplines

- [Architecture](#)
- [Change management](#)
- [Continuous integration](#)
- [Learning & Development](#)
- [DevOps](#)
- [Computer Programming](#)
- [Release management](#)
- [Software testing](#)

Related:

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- [.NET MAUI](#)
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[kb](#), [programming](#)

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- @@Title:@@ link, requirements, management, software, architecture, computer, programming, testing, maintenance, change, continuous, integration, project, release, devops, plan, create, verify, packaging, configure, monitor
- @@Title:@@ kb, requirements, management, software, architecture, computer, programming, testing, maintenance, change, continuous, integration, project, release, devops, plan, create, verify, packaging, configure, monitor
- Agile Unified Process method, programming, projects
- Ajax kb, programming, devopscreate
- AlgoExpert link, programming
- Algorithm kb, programming
- Angular tool, programming, devopscreate, dev-web
- Apache ANT tool, architecture, programming, devopscreate
- Apache Buildr tool, programming, devopscreate, devopspackaging
- Apache Kafka tool, architecture, programming
- Apache Subversion tool, programming, devopscreate, versioning
- Atom tool, programming, devopscreate, editor
- AWS Cloud9 tool, architecture, programming, devopscreate, ide
- Azure DevOps tool, devops, devopsplan, devopscreate, devopsverify, devopspackaging, devopsrelease, requirements, programming, test, ci, projects, release
- Bento link, programming, learn
- BitBucket tool, programming, devopscreate, git
- BitDegree link, programming, crypto, learn
- Broccoli tool, programming, devopscreate
- Build automation method, programming, devopscreate, ci, automation
- BuildMaster tool, programming, devopscreate
- Change control kb, programming, devopsconfigure, change, ci
- Chaos model kb, architecture, programming, projects
- ChatGPT kb, ai, chatbot, ai-tools, ai-text, ai-code, programming, devopscreate, genai
- Class kb, programming, devopscreate
- CMake tool, programming, test, devopscreate, devopsverify, devopspackaging
- Code Avengers link, programming, devopscreate, learn, training
- Code Conquest link, programming, learn
- Code.org link, requirements, architecture, programming, devopscreate, learn, cs
- Code4Startup link, programming, learn, dev-python
- codeasy.net link, programming, devopscreate, learn, dev-ms
- CodeBeautify tool, programming
- Codebyte link, programming, devopscreate, learning, training
- Codecademy link, programming, devopscreate
- CodeGym link, programming, devopscreate, learn, dev-java
- CodeHS link, programming, training

- [CodeLobster](#) tool, programming, devopscreate
- [Codementor](#) link, programming, devopscreate, training
- [Codenvy](#) tool, programming
- [Codewars](#) link, programming, devopscreate, learn
- [Coding Dojo](#) link, programming, devopscreate, training
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- [Codingem.com](#) link, programming, devopscreate
- [Comparison of open-source configuration management software](#) link, programming, maintenance, change, ci
- [Compiler](#) kb, programming
- [Container Management](#) method, programming, ci, devopscreate, devopspackaging, devopsrelease, skill
- [Cross-platform](#) method, architecture, programming
- [CUDA](#) kb, programming, acronym, devopscreate
- [Cyber Security](#) method, programming, security, skill, overview, dx
- [Debugger](#) kb, programming
- [DEV Community](#) link, programming, devopscreate
- [DevDocs](#) link, programming, devopscreate
- [Devhints](#) link, programming, maintenance
- [Devicon](#) link, requirements, programming, devopsplan, devopscreate, ux, dev-web
- [DevOps toolchain](#) method, architecture, programming, maintenance, change, ci
- [Disciplined agile delivery](#) method, architecture, programming, devopsplan, projects
- [Docker](#) tool, architecture, programming, maintenance, devopspackaging, release
- [Document Object Model \(DOM\)](#) kb, architecture, programming
- [Don't repeat yourself \(DRY\)](#) kb, programming, test, devopsverify
- [Dynamic systems development method](#) method, programming, projects
- [Eclipse](#) tool, programming, devopscreate
- [Edabit](#) link, programming, devopscreate
- [Elasticsearch](#) tool, architecture, programming, maintenance, search, devopsmonitor
- [Electron](#) tool, architecture, programming, devopscreate
- [Enterprise service bus \(ESB\)](#) kb, programming, enterprise
- [Extreme programming \(XP\)](#) method, architecture, programming, devopscreate, projects
- [Feature Flags](#) kb, programming, maintenance
- [Feature toggle](#) method, architecture, programming, test, devopscreate
- [freeCodeCamp](#) link, programming, devopscreate
- [GeeksforGeeks](#) link, architecture, programming, test, maintenance, devopscreate, devopsverify, devopsconfigure
- [Gerrit Code Review](#) tool, programming, test, devopscreate, release
- [Git](#) kb, architecture, programming, git, maintenance, change, ci, devopscreate, release, versioning

- [GitHub](#) tool, programming, devopscreate, git, learn, versioning
- [GitHub Copilot](#) tool, programming, ai, ai-code, ai-tools, genai, copilot, copilot-dev
- [GitHub Learning Lab](#) tool, git, programming, test, maintenance, change, devopscreate, learning
- [GitLab](#) tool, requirements, devopscreate, git, architecture, programming, test, maintenance, ci, release
- [GitOps](#) method, requirements, architecture, programming, ci, devopsplan
- [Google Developers Learn](#) link, programming, devopscreate
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- [Graphical user interface](#) kb, programming
- [GRASP](#) kb, programming
- [Grunt](#) tool, programming, maintenance, devopscreate
- [Gulp](#) tool, programming, dev-web
- [Guru99](#) link, architecture, programming, test, devopscreate, devopsverify
- [HackerNoon](#) link, programming, devopscreate, learn, dev-tech
- [HackerRank](#) link, programming, devopscreate
- [hackr.io](#) link, programming, devopscreate, dev-web
- [HP ALM](#) tool, requirements, architecture, programming, test, maintenance, change, ci, projects, release
- [Information security](#) method, requirements, architecture, programming, maintenance, change, devopsplan, devopscreate, devopsverify, release
- [Inner Source](#) kb, architecture, programming, devopscreate
- [Installation](#) method, architecture, programming, maintenance, release
- [Integrated Development Environment \(IDE\)](#) method, ide, programming, devopscreate
- [IntelliJ IDEA](#) tool, ide, programming, devopscreate
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- [Logscape](#) tool, programming, maintenance, devopscreate, devopsmonitor
- [Lucene](#) tool, programming, devopscreate
- [LuntBuild](#) tool, programming, devopscreate

• Machine learning (ML)	method, architecture, programming, ai, dev-ml
• MariaDB	tool, architecture, programming, dev-db, database
• MDN Web Docs	link, programming, devopscreate, learn, dev-web
• Meister	tool, programming, devopscreate
• Microservices	kb, architecture, programming, devopsplan
• Microsoft Graph	tool, programming, rss, api, copilot
• Microsoft Graph Toolkit	tool, architecture, programming, dev-ms, dev-teams
• Microsoft Visual Studio	tool, programming, devopscreate, ide
• MIT OpenCourseWare	link, programming, devopscreate, learn
• MSBuild	kb, architecture, programming
• MSSQL	tool, architecture, programming, database, dev-db
• MySQL	tool, programming, database, sql, dev-db
• NAnt	tool, programming, devopscreate
• neo4j	tool, programming, dev-db
• NetBeans	tool, programming, ide, devopscreate
• NLP	kb, programming, acronym
• Node.js	tool, architecture, programming, dev-web
• Notepad++	tool, editor, programming, devopscreate, ide, rss
• Object-oriented programming	method, architecture, programming, devopscreate
• Octopus Deploy	tool, programming, devopsrelease, change, ci
• OData	kb, architecture, programming, data, api, rest, protocol
• One Month	link, programming, devopscreate
• Open Source	kb, programming
• Oracle DB	tool, architecture, programming, dev-db, database
• Package manager	kb, architecture, programming
• Pair Programming	method, programming, projects, agile
• Postman	tool, architecture, programming, test
• PowerShell	tool, programming, maintenance, release, automation
• Profiling	method, programming, devopsverify
• Programiz	link, programming, devopscreate
• Programming language	method, devopscreate, programming
• Progressive web application (PWA)	kb, architecture, programming, acronym, devopsplan, dev-web, internet
• PyTorch	tool, architecture, programming, python, ai, dev-ml, devopscreate
• QuickBuild	tool, programming, ci, devopscreate, devopspackaging, devopsrelease
• Rake	tool, programming, devopscreate
• Rational solution for CLM	tool, requirements, architecture, programming, test, maintenance, change, ci, projects, release
• Rational Team Concert	tool, requirements, architecture, programming, test, maintenance, change, ci, projects, release
• Refactoring	kb, programming
• Repository Management	method, architecture, programming, devopspackaging, change, ci, release

• Representational State Transfer (REST)	kb, programming, maintenance, ci
• REST	kb, programming
• Robotic Process Automation (RPA)	method, architecture, programming, acronym, skill, dx, automation
• sbt	tool, programming, devopscreate
• Scalable Vector Graphic (SVG)	kb, architecture, programming
• SCons	tool, programming, devopscreate
• Scratch	link, programming, learn, devopscreate
• SDK	kb, architecture, programming, acronym
• SDLC	method, architecture, programming, devopscreate
• Selenium	tool, programming, test, devopsverify, release
• Service-provider network	kb, programming, network
• SitePoint	link, programming, devopsplan, devopscreate
• Software build	method, programming
• Software deployment	method, programming, test, maintenance
• Software design pattern	kb, architecture, programming, devopscreate, devopsverify, taxonomy, pattern
• Software development process	method, requirements, architecture, programming, test, maintenance, change, ci, projects, release
• Software documentation	method, requirements, architecture, programming, test, maintenance, change, ci, projects, release
• Software Engineering Management	method, architecture, programming, devopscreate
• Software framework	kb, architecture, programming
• Software prototyping	method, architecture, programming
• Software versioning	kb, programming, maintenance, change, ci
• SOLID	kb, architecture, programming, acronym
• Sololearn	link, programming, devopscreate, learn, training
• SonarQube	tool, architecture, programming, test, maintenance, devopsplan, devopscreate, devopsverify
• Source-to-source compiler	kb, programming
• SQLite	tool, architecture, programming, dev-db, database
• Stack Overflow	link, programming, devopscreate, learn, compare
• Stackify	tool, programming, maintenance, devopscreate, devopsmonitor
• StarTeam	tool, programming, projects
• Static program analysis	method, requirements, architecture, programming, test, maintenance, ci, projects, release
• Studytonight	link, programming
• SVG.js	tool, programming
• SWEBOK	kb, requirements, architecture, programming, devopscreate
• System integration	method, architecture, programming, change

- Team Foundation Server tool, requirements, devopscreate, architecture, programming, test, maintenance, change, ci, projects, release
- TeamForge tool, requirements, architecture, programming, test, maintenance, change, ci, projects, release
- Test automation tool, programming, test, devopsverify, skill, automation
- TFVC kb, programming, devopscreate, ci, release
- The Odin Project link, programming, projects, devopscreate, learn, training
- Thinkful link, architecture, programming, training
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- Unit testing method, programming, test, devopsverify
- Unzip.dev link, architecture, programming, devopscreate
- Upskill link, programming, learn
- UrbanCode Build tool, programming, ci, devopscreate, devopspackaging
- Version control kb, programming, change, ci, release
- Visual Build tool, programming, devopscreate
- Visual Studio tool, requirements, programming, test, devopscreate, devopsverify, ci, release
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- Visual Studio Team Services tool, requirements, architecture, programming, test, maintenance, change, ci, projects, release
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- Vue.js tool, programming, devopscreate
- w3Schools link, requirements, architecture, programming, learn, training, web
- WAN kb, architecture, programming, network, acronym, devopsrelease
- Webpack tool, programming, dev-web
- WebView2 tool, architecture, programming, devopscreate
- Xamarin tool, architecture, programming
- XAML kb, programming, devopscreate
- XML kb, architecture, programming, devopscreate
- Yeoman tool, programming
- You aren't gonna need it kb, programming

ToDo



- Citizen Development
- Agile software development
- Fusion development
- SDLC

- .NET Development Services
- Agile and DevOps Services
- API Monitoring Software
- API Security
- Application Control
- Application Security Tools
- Application Security Training Software
- Augmented Reality Development Platforms
- Authentication/Authorization methodologies
- Blockchain Development Platforms
- Build Automation
- Code Review Tools
- Construction
- Container Virtualization
- Debugging
- Debugging
- Deployment
- Design
- Development
- Development methodology
- Development Platforms
- Development team management
- Enterprise Agile Planning Tools
- Exception Handling
- File handling concepts
- File Systems
- Generators
- Geographic Information Systems
- Hotfix, version, branch management
- IDE
- IT Operations Analytics
- Iterators
- Java Frameworks
- Mainframe Application Development
- Maintenance
- Mathematical Optimization Tools
- Mobile APM
- ORM
- Package manager
- Patch Management
- PHP Frameworks
- Process Management
- Rapid Application Development Software
- Regression Testing Tools
- Release Automation
- Repository Managers
- Requirements
- REST API
- Scope, time, resource management
- Sockets
- Software Components

- Software Composition Analysis (SCA)
- Software Development Analytics
- Software Development Services
- Software Distribution
- Static Code Analysis
- Test Design Automation
- Testing
- Threads & Concurrency
- Transaction Processing
- Variables and data types
- Version Control
- Virtualization

[skill](#), [overview](#)

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