Git and Version Control for ERP Developers Training Course

Professional Development Training Course Outline

Category	Enterprise Resource Planning (ERP)	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Git and Version Control for ERP Developers Training Course is designed to empower ERP development teams with the essential skills and knowledge needed to efficiently use Git, the most widely adopted version control system. In an era where software development is increasingly collaborative and distributed, mastering Git ensures seamless collaboration, effective tracking of changes, and robust code management. ERP systems, which are crucial for managing enterprise resources, demand precise and error-free development processes, making version control an indispensable tool. This course will equip ERP developers with practical, real-world applications of Git to streamline the development lifecycle, improve productivity, and ensure code integrity.

As organizations continue to adopt agile development practices, the ability to manage and track changes within ERP systems is vital. Developers working on ERP platforms such as SAP, Microsoft Dynamics, or Odoo must grasp the fundamentals of Git for managing source code across multiple environments and versioning large systems. This course delves into advanced Git features, including branching, merging, and conflict resolution, tailored specifically for ERP developers. By the end of this training, participants will be proficient in using Git to enhance their version control practices, ensuring consistent deployments, improved collaboration, and better code quality in the complex ERP ecosystem.

Programme Curriculum

Git and Version Control for ERP Developers Training Course

Introduction

Git and Version Control for ERP Developers Training Course is designed to empower ERP development teams with the essential skills and knowledge needed to efficiently use Git, the most widely adopted version control

system. In an era where software development is increasingly collaborative and distributed, mastering Git ensures seamless collaboration, effective tracking of changes, and robust code management. ERP systems, which are crucial for managing enterprise resources, demand precise and error-free development processes, making version control an indispensable tool. This course will equip ERP developers with practical, real-world applications of Git to streamline the development lifecycle, improve productivity, and ensure code integrity.

As organizations continue to adopt agile development practices, the ability to manage and track changes within ERP systems is vital. Developers working on ERP platforms such as SAP, Microsoft Dynamics, or Odoo must grasp the fundamentals of Git for managing source code across multiple environments and versioning large systems. This course delves into advanced Git features, including branching, merging, and conflict resolution, tailored specifically for ERP developers. By the end of this training, participants will be proficient in using Git to enhance their version control practices, ensuring consistent deployments, improved collaboration, and better code quality in the complex ERP ecosystem.

Course Duration

10 days

Course Objectives

1. Understand the basics of Git and version control within the context of ERP development.
2. Learn how to set up Git repositories for ERP systems and manage different environments.
3. Implement Git branching strategies to improve collaboration among ERP development teams.
4. Master Git merge and rebase operations for clean and conflict-free code integration.
5. Understand the role of Git in Continuous Integration and Continuous Deployment (CI/CD) pipelines for ERP systems.
6. Learn how to use Git in parallel with ERP development tools such as SAP NetWeaver, Microsoft Dynamics, and Odoo.
7. Leverage Git to track and roll back changes efficiently, reducing errors and downtime in ERP systems.
8. Use Git to manage ERP configuration files, ensuring consistency across development, staging, and production environments.
9. Implement automated testing with Git hooks for ERP development environments.
10. Explore Git workflow models to standardize development practices in ERP projects.
11. Apply best practices for writing commit messages and creating meaningful Git logs for ERP-related changes.
12. Learn how to handle large codebases and binary files common in ERP development with Git LFS
13. Troubleshoot and resolve Git conflicts in ERP system development, ensuring minimal disruption to the workflow.

Target Audience

1. ERP Developers.
2. Software Engineers.
3. DevOps Engineers.
4. Project Managers.
5. System Administrators.
6. Technical Leads.
7. QA Engineers.
8. Technical Trainers.

Course Modules

Module 1: Introduction to Git for ERP Development

- Overview of Git and Version Control in ERP systems
- Installing and configuring Git for ERP projects
- Understanding the core principles of version control
- Best practices for setting up Git repositories for ERP systems
- Case Study: Implementing Git in an Odoo ERP development environment

Module 2: Git Workflow Basics

- Initializing a Git repository and setting up remote connections
- Basic Git commands
- File tracking in Git
- Structuring a Git repository for large ERP systems
- Case Study: Setting up Git repositories for SAP projects

Module 3: Branching and Merging in Git

- Introduction to branching in Git
- How to create and switch between branches in Git
- Merging branches: best practices and strategies
- Resolving merge conflicts in ERP projects
- Case Study: Managing feature branches in a Microsoft Dynamics ERP project

Module 4: Advanced Git Features for ERP Developers

- Rebasing and merging
- Stashing changes and working with multiple branches
- Cherry-picking commits for selective change integration
- Git submodules and their role in ERP systems
- Case Study: Handling customizations in SAP via Git submodules

Module 5: Git in CI/CD Pipelines for ERP

- Introduction to Continuous Integration and Continuous Deployment
- Setting up Git repositories for CI/CD in ERP development
- Automating tests and deployments with Git hooks
- Integrating Git with Jenkins, GitLab, or Azure DevOps
- Case Study: CI/CD integration for Odoo ERP updates

Module 6: Git and ERP Code Review Practices

- Collaborative code review workflows with Git
- Setting up pull requests and code review policies
- Handling feedback and making code revisions in ERP systems
- Best practices for writing commit messages and documenting changes
- Case Study: Streamlining ERP system code reviews using GitHub

Module 7: Efficiently Managing Large ERP Codebases with Git LFS

- Introduction to Git Large File Storage (LFS)
- Setting up and managing large binary files in ERP projects

- Handling images, documentation, and other non-code files with Git LFS
- Optimizing Git performance for large codebases
- Case Study: Managing SAP custom development using Git LFS

Module 8: Handling Git Conflicts in ERP Development

- Common Git conflict scenarios in ERP development
- Tools and strategies for resolving conflicts efficiently
- Best practices for team communication during conflict resolution
- Preventing conflicts with Git workflows
- Case Study: Resolving Git conflicts during a Microsoft Dynamics upgrade

Module 9: Best Practices for Git in ERP Development

- Standardizing commit messages and Git logs for ERP systems
- Creating meaningful Git branches for ERP modules
- Managing configuration files across environments
- Structuring and tagging releases in ERP development
- Case Study: Best practices in versioning for an SAP system upgrade

Module 10: Git Security and Best Practices for ERP Systems

- Managing access control and permissions for Git repositories
- Best practices for securing sensitive ERP data in Git
- Encryption strategies and secure handling of credentials
- Setting up SSH keys and working with HTTPS authentication
- Case Study: Securing ERP development repositories using GitHub Enterprise

Module 11: Git for ERP System Rollbacks and Hotfixes

- Understanding the role of Git in ERP rollback procedures
- Best practices for handling hotfixes and emergency patches
- Using Git to identify and fix issues quickly in ERP systems
- Reverting commits and tags to correct deployment errors
- Case Study: Implementing a rollback strategy for Odoo system upgrades

Module 12: Optimizing Git for Performance in Large ERP Projects

- Tips for speeding up Git operations in large ERP projects
- Leveraging shallow clones and partial clones for large systems
- Optimizing Git history to improve performance
- Using Git’s garbage collection features effectively
- Case Study: Performance tuning for Git repositories in SAP environments

Module 13: Collaboration and Teamwork with Git in ERP Development

- Setting up Git hooks for team collaboration
- Managing contributions and version control strategies for distributed teams
- Git workflow models
- Coordinating deployments and code reviews across teams
- Case Study: Implementing GitFlow in a cross-functional ERP development team

Module 14: Versioning and Tagging ERP Releases with Git

- Creating and managing tags for ERP system releases
- Best practices for version control and release management
- Rolling out ERP system updates with Git tagging
- Semantic versioning and its application in ERP systems
- Case Study: Managing ERP versioning with Git and GitHub

Module 15: Git Troubleshooting for ERP Developers

- Common Git issues and how to troubleshoot them
- Resolving sync and merge issues in complex ERP development workflows
- Restoring lost commits and recovering data from corrupted repositories
- Integrating Git with debugging tools for ERP projects
- Case Study: Solving Git-related deployment failures in SAP projects

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call +254769199797

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com