GITLAB COURSE CONTENTS (3 DAYS)
By Dr. Vishwanath Rao

DAY 1

- Installing GitLab
- Configuring GitLab
- User settings and permissions
  - User account: Manage your account
  - Authentication: Account security with two-factor authentication, set up your ssh keys and deploy keys for secure access to your projects.
  - Profile settings: Manage your profile settings, two factor authentication and more.
  - User permissions: Learn what each role in a project (external/guest/reporter/developer/maintainer/owner) can do
- Getting started with GitLab
- GitLab Basics: Start working on your command line and on GitLab.
- GitLab Workflow: Enhance your workflow with the best of GitLab Workflo
- See also GitLab Workflow - an overview.
- GitLab Markdown: GitLab's advanced formatting system (GitLab Flavored Markdown).
- GitLab Flow: explore the best of Git with the GitLab Flow strategy

Setting up a code review
- Customizing GitLab's appearance
- Maintaining GitLab
- Updating GitLab
- GitLab platform integrations
- Project settings
- Repository settings
- Continuous Integration settings
- Git configuration options
- Monitoring GitLab
- Troubleshooting GitLab

- Mastering Code Review With GitLab.
- GitLab Workflow in depth
- Code hosting in repositories with version control

- Track proposals for new implementations, bug reports, and feedback with a fully featured Issue Tracker
- Organize and prioritize with Issue Boards
- Code review in Merge Requests with live-preview changes per branch with Review Apps
- Build, test and deploy with built-in Continuous Integration

DAY 2

- Deploy your personal and professional static websites with GitLab Pages
- Track the development lifecycle with GitLab Cycle Analytics
- Provide support with Service Desk
- Improve collaboration with Merge Request Approvals, Multiple Assignees for Issues, and Multiple Issue Boards
- View your entire CI/CD pipeline involving more than one project with Multiple-Project Pipeline Graphs
- Lock files to prevent conflicts
- View of the current health and status of each CI environment running on Kubernetes with Deploy Boards
- Leverage your continuous delivery method with Canary Deployments
- Scan your code for vulnerabilities and display them in merge requests.
- Repositories: Host your codebase in repositories with version control and as part of a fully integrated platform.
- Explore the best of GitLab Issues' features.
- Merge Requests: Collaborate on code, reviews, live preview changes per branch, and request approvals with Merge Requests.
- Projects - Milestones: Work on multiple issues and merge requests towards the same target date with Milestones
- GitLab Auto Deploy: Deploy your application out-of-the-box with GitLab Auto Deploy.
- Review Apps: Live-preview the changes introduced by a merge request with Review Apps.

DAY 3

- GitLab Pages: Publish your static site directly from GitLab with GitLab Pages. You can build, test, and deploy any Static Site Generator with Pages.
- GitLab Container Registry: Build and deploy Docker images with Container Registry

- Settings: Manage your user settings to change your personal info, personal access tokens, authorized applications, etc.
- Authentication: Read through the authentication methods available in GitLab.
- Permissions: Learn the different set of permissions levels for each user type (guest, reporter, developer, maintainer, owner).
- Feature highlight: Learn more about the little blue dots around the app that explain certain features
- Gitlab Groups
- Gitlab Discussions
- GitLab Flavored Markdown
- Gitlab Todos
- Gitlab Search
- Gitlab Snippets
- Gitlab Integrations
- Gitlab Webhooks
- Gitlab API

- Getting started with GitLab CI/CD
  - Creating a .gitlab-ci.yml file
  - Push .gitlab-ci.yml to GitLab
  - Configuring a Runner
  - Seeing the status of your pipeline and jobs
- Using Docker images
- API
- Auto DevOps
- SSH authentication
- Kubernetes integration
- GitLab Pages
- GitLab Container Registry
- Complete DevOps with GitLab