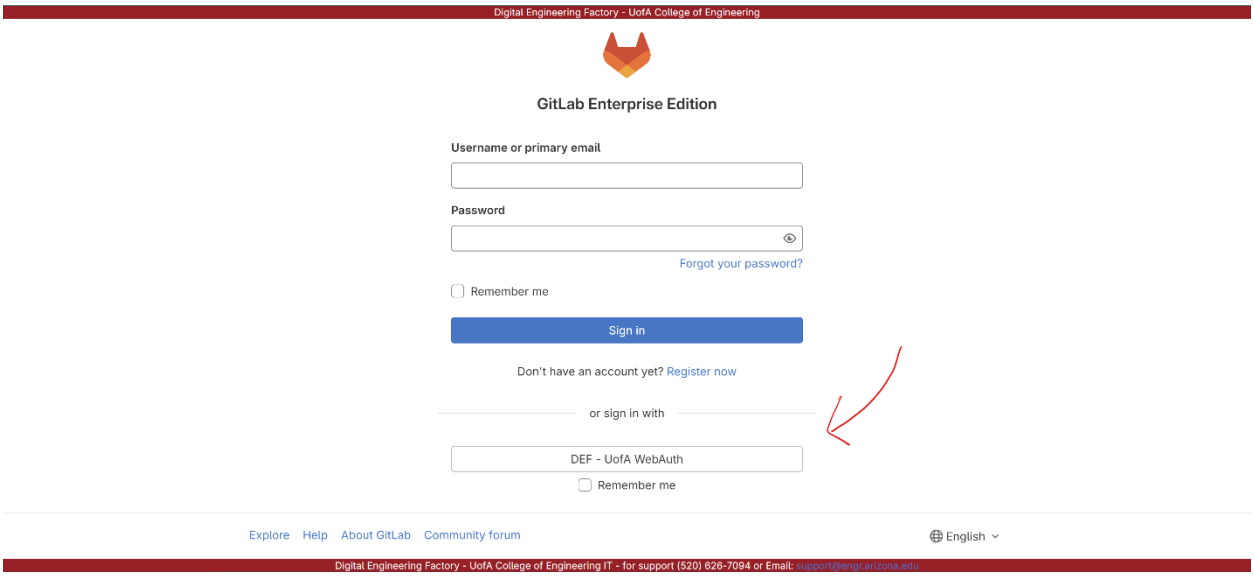
GitLab

Account Setup

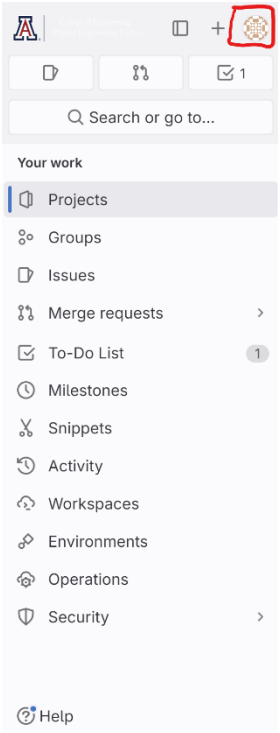
Navigate to https://git.def.engr.arizona.edu/users/sign_in via the DEF and select the “DEF – UofA WebAuth” button to sign in using NetID.



Access

Once an account has been set up, students may access GitLab through https://git.def.engr.arizona.edu so long as they are connected to UAWifi or the UA VPN for remote access.

Logout



To logout of GitLab, navigate to the homepage and click the profile icon on the left side of the screen and select “Sign out”. This will take you back to the login page.

Basics

Groups:

Groups serve as organizational units that can house multiple projects, offering a structured way to manage and coordinate related endeavors. These groups act as a common umbrella under which projects are organized, and they come with their own set of permissions, member management capabilities, and customizable settings, providing a robust framework for collaborative work.

Projects:

Projects encompass associated files, code, and documentation. Nested within groups, projects are instrumental in organizing and overseeing specific sets of files and codebases. Each project can have its own unique settings, access controls, and dedicated issue tracking, enabling teams to tailor their development environments to meet the specific requirements of their projects. Each project contains a repository.

Repositories:

https://docs.gitlab.com/ee/user/project/repository/index.html

Repositories, often referred to as "repos," form the backbone of GitLab as they house collections of files, code, and the complete version history of a project. These repositories facilitate collaborative development by providing a centralized location for code storage and version tracking. GitLab allows repositories to have different visibility settings, allowing them to be either public or private based on the project's requirements.

Issues:

Issues in GitLab serve as a task and project management tool. They are utilized to track various types of work such as tasks, enhancements, and bugs. These issues provide a collaborative space for team members to discuss and coordinate efforts related to specific items within a project. Additionally, issues can be assigned to individuals, labeled for categorization, and linked to milestones or merge requests, enhancing the overall project management workflow.

Merge Requests:

https://docs.gitlab.com/ee/user/project/merge_requests/

Merge Requests (MR) in GitLab are proposals designed to integrate changes from one branch into another. They are crucial when developers aim to merge their alterations into the main branch, typically from a feature branch to the main branch. Merge requests play a pivotal role in facilitating code review and fostering discussions among team members before finalizing changes, ensuring a controlled and collaborative approach to code integration and project development.

Project Setup

Create a Project:

https://docs.gitlab.com/ee/user/project/

Navigate to the left sidebar and click on "Create New (+)" and then "New project/repository" at the top.

Opt for creating a blank project.

Fill in the project details.

Enter the project name in the designated field, keeping in mind the limitations on project names.

In the Project slug field, specify the path to your project. This slug is utilized as the URL path to the project by the GitLab instance. If needed, change the slug after entering the project name.

Optionally, choose the project's deployment target in the Project deployment target field to assist GitLab in understanding users and their deployment requirements.

Adjust the Visibility Level to modify the viewing and access rights for users.

If you want to initialize the Git repository, create a default branch, and enable cloning, choose "Initialize repository with a README."

Opt for "Enable Static Application Security Testing (SAST)" to analyze the source code for known security vulnerabilities.

Finally, click on "Create project" to complete the process.

Viewing Projects:

View projects you are a member of

To view projects you are a member of:

On the left sidebar, select Search or go to.

Select Your work.

On the left sidebar, Projects is selected. On the list, on the Yours tab, all the projects you are a member of are displayed.

View personal projects

Personal projects are projects created under your personal namespace.

For example, if you create an account, and create a project called myproject under your username, the project is created at https://gitlab.example.com/username/myproject.

To view your personal projects:

On the left sidebar, select your avatar and then your username.

On the left sidebar, select Personal projects.

Workflow

Cloning Repository:

When viewing a project repository, select the Code dropdown on the right.

This provides means of working on the repository through Cloning with SSH, Cloning with HTTPS, direct opening of IDEs, or source code in compressed file formats.

Using git in Workspace:

GitLab Basics - Learn Git

Additional Resources

Full documentation can be found at: https://docs.gitlab.com/