## Configuration Management & Bug Reporting

The tool set for our management configuration and bug reporting will be GitLab. GitLab has several features that will enable us to create and develop quality software.

The git version control system will allow us to record changes of the file or set of files over time so that we can recall specific versions later, It allows us to revert files back to a previous state, revert the entire project back to a previous state, compare changes over time, see who last modified something that might be causing a problem, who introduced an issue and when, and more. Using a VCS also generally means that if we lose files, we can easily recover them. In addition, we get all this for very little overhead. It also allows us to view the file structure of the repository with a commit message describing the latest change next to each file, making it easier to browse through them.

As communication on different project related topics, when necessary, we will be able to make use of the Wiki feature of GitLab. This will allow us to create pages on multiple topics that we refer to frequently. The pages can be linked with one another, the commit messages and the issue tracking system, helping us discuss problems and find solutions.

Just like any project, there will be many different bugs along the way, in order to help on that topic, GitLab has an Issue Tracking System that will allow us to create a report about the bug and send it to the developer responsible along with a tag that will keep the Issues organised and allow the progress to be easily checked, as well as keeping other developers informed about the problem being raised. The Issues are stored on the server and labelled with their severity.

Whenever there is an issue within the project, we will be making use of the Issue Tracking System. Whether the Issue is a bug report, a task, a feature request or support problem, any developer can create an issue and assign it to another developer or themselves, reassign it if needed and add comments to it, thus helping us organise our work more efficiently.

Here is an example of the Issue Tracking System from our project:

