ACIT 4850 – Enterprise System Integration – Winter 2024

Lesson 2 – Work Management and Knowledge Base Tools

For Lesson 2, we will be installing Work Management and Knowledge Base tools in our Enterprise System Development Environment.

Work Management – Work Management Software allows a software team to plan, track, organize and review its work. Typically the work is organized around projects or ongoing tasks. A project represents a set of work to produce some outcome (i.e., product or service) with a specific scope and within a specific timeframe. In the software world, a project could be the development of a new software product or the release of a new version of an existing software product. Ongoing tasks in software are activities, typically outside of projects, needed to maintain existing software products either with minor new features, ongoing bug fixes, hot fixes or operational tasks.

Most typical Work Management tools targeted at software teams support an Agile workflow with a Kanban board. For project work, iterations (i.e., sprints) are used to timebox the work and provide more frequent demos and deliverables. For ongoing work, a pure Kanban board may be used with the goal of limiting the amount of work (i.e., tasks) in progress (i.e., trying to force people to finish tasks – mark as done – before moving on the next one).

Common Agile work management tools that you may have used include Trello and Asana. Other products, like GitHub and GitLab, include some work management capabilities built-in.

One of the more popular work management tools for software teams is JIRA from Atlassian. It supports both traditional waterfall type workflows and agile workflows and is highly configurable. You will be installing JIRA for Lab 2.

Please review the JIRA installation methods here:
https://confluence.atlassian.com/adminjiraserver/installing-jira-applications-938846823.html

We will be using the JIRA installer on Linux described here:
https://confluence.atlassian.com/adminjiraserver/installing-jira-applications-on-linux-938846841.html

Knowledge Base – A knowledge base for a software team is a place where they store documentation relevant to their team and product. This may include team processes, development processes, software design and architecture and operational processes and instructions.

A knowledge base could simply be a shared folder where the documentation is kept and organized in some manner. However, there is software to help manage this documentation. For example, SharePoint is a Microsoft product that manages "knowledge" in the form of documents, usually as Word, Excel or Powerpoint documents. Often software teams will use a Wiki, which is effectively an editable website. A Wiki typically allows new pages to be created and existing pages edited (depending on permissions). The idea is that anyone can easily modify the documentation to keep it up-to-date and also easily find relevant documentation based on its organization or search capabilities. An example of a Wiki tool is MediaWiki which powers Wikipedia. Also, tools like GitHub and GitLab both have basic wiki capabilities

as well. Often Wiki tools require the user to learn a markup language to format the content of pages, but some have built-in editors.

One of the more popular knowledge base wiki tools is Confluence from Atlassian. Its distinguishing features are a good search capability and a WYSIWYG (What You See Is What You Get) editor (i.e., no mark-up). You will be installing this for Lab 2 as well.

Please review the Confluence installation methods here:
https://confluence.atlassian.com/doc/confluence-installation-guide-135681.html

We will be using the Confluence installer on Linux described here:
https://confluence.atlassian.com/doc/installing-confluence-on-linux-143556824.html

Note that Lab 2 may be one of the more "frustrating" labs in the course as we will be doing one of the more manual installs of the tools. This is the get a feel for the challenge in installing some software products and why a simply installation process is good. In many of the later labs we will be using pre-defined Docker images to install the software tools in our Enterprise Development Environment.