

ACIT 4850 – Enterprise System Integration – Winter 2024

Lesson 4 – Tool Evaluations, Continuous Integration

Tool Evaluations

In Lesson 3 we discussed functional and non-function requirements as an important input to our tool evaluations. Often times when working on a tool evaluation you need to identify the requirements as they aren't fully provided. You can derive the requirements for your tool evaluation by talking to your stakeholders. A stakeholder is anyone that has an interest (or concern) in the realization of the system or tools you are evaluating and planning to bring into the enterprise. Please read the following sections from the System Engineering Wikipedia article on Stakeholders Needs and Requirements:

- Purpose and Definition:
https://www.sebokwiki.org/wiki/Stakeholder_Needs_and_Requirements#Purpose_and_Definition
- Identifying Stakeholders:
https://www.sebokwiki.org/wiki/Stakeholder_Needs_and_Requirements#Identifying_Stakeholders
- Collecting Needs and Requirements:
https://www.sebokwiki.org/wiki/Stakeholder_Needs_and_Requirements#Collecting_Stakeholder_Needs_and_Requirements

For the tools in our Enterprise Development Environment, examples of stakeholders may include:

- **Project Manager** – Interested in areas like cost, monitoring and tracking, fit for purpose (i.e., will the tool for the end users).
- **Product Owner** – Interested in how the tool supports the development of software product features and how fast tested new features get into the hands of users.
- **Development Team** – As potential end users of the tool, interested in features and efficiency of the tool.
- **Test Team** – Likely end users of the tool as well. Similar interests to the development team.
- **IT Department** – Interested in how easy or hard it is to deploy, upgrade and maintain the tool. Also may be interested in areas like security, scalability and availability.

Knowing who your stakeholder are can help both identify and prioritize the requirements for the tools you are evaluating.

Continuous Integration

In Lesson 4 you will be installing a Continuous Integration tool (Jenkins) to create pipelines to build, test and deploy software products. This is one of the starting points for introducing DevOps into software development teams. Please read the following articles on DevOps and Continuous Integration:

- <https://theagileadmin.com/what-is-devops/>
- <https://martinfowler.com/articles/continuousIntegration.html>