The Technology Value Stream

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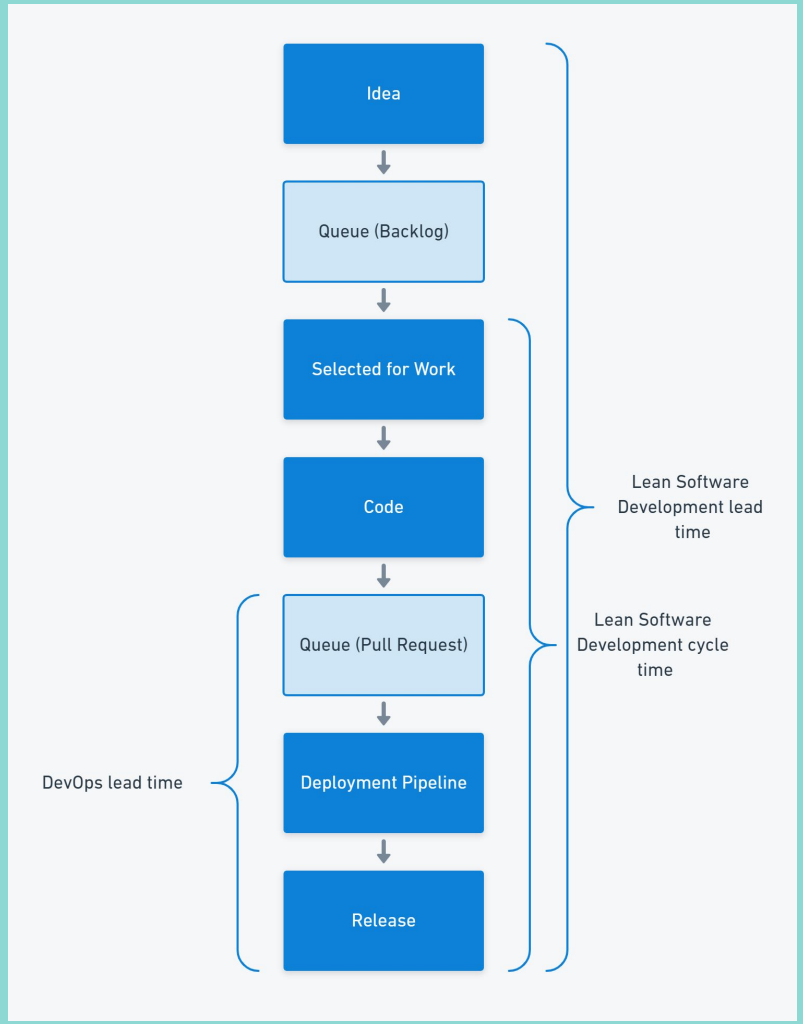
What is the Technology Value stream?

- The process that turns business ideas into software
- Done through Agile or iterative process to change ideas to user stories, then eventually a feature or specification
- Flow must be optimized and focus is on reducing inefficiencies in the system

Benefits of a good Technology Value Stream

- Better Customer Satisfaction since fixes and features are delivered fast
- Less risk as changes are smaller and more frequent
- Better efficiency and performance since developers can focus on prioritized tasks
- Quicker Feedback loop


Idea
Queue (Backlog)
Selected for Work
Code
Queue (Pull Request)
Deployment Pipeline
Release
DevOps lead time
Lean Software Development lead time
Lean Software Development cycle time

Lead Time vs. Processing Time

- Lead time: Starts when the request is made and ends when the request is fulfilled
- Processing time: Starts when work on customer request begins and ends when the work is completed
- Customer experiences lead time so inefficiencies in lead time are where actions for improvement are mostly focused

Long Lead Times

- The common scenario is that organizations have longer lead times, especially with larger organizations working with tightly coupled systems
- Caused by various types of bottlenecks
- Fixing problems can take extended periods of investigation before fixing
- The result is a less satisfied customer or client waiting for the product due to delayed lead times of weeks or months

DevOps Ideal: Lead Time of Minutes

- The DevOps Ideal is for developers to get fast and constant feedback so they can implement, integrate and validate their code and have the code deployed into production
- Done by constantly checking small code changes into VC repository, doing automated/exploratory testing, and deploying into production
- Teams deploy consistently and independently
- Architecture should be modular, encapsulated, and loosely coupled for the best efficiency and collaboration