



# The Technology Value Stream

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# Definitions

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- Value: Any good, service, or product that is to be delivered to a customer
- Value Stream: The methods used to complete all the processes needed to deliver a value
- It is important to properly manage value streams to identify necessary processes and ensure that each process is done efficiently.



# Lead Time

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- The time it takes from a customer ordering a product to when they receive it.
  - In software development, lead time refers to the time from when a user story is created to when the story becomes ready for delivery.
    - It includes:
      - Discussion of user story time
      - Time the story spends on the backlog
      - And the time the story is being worked on



# Processing Time

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- Focuses on time spend working on a single task or feature within a process
  - Tracking this time can help to improve processes and optimize workflow
    - Includes:
      - All steps involved in the development of a specific feature
      - Designing, coding, testing, etc.



# Development Lead Times taking Months

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- Typically refers to organizations with applications that require extensive processes (testing, approvals, teamwork between multiple teams) before the application can be deployed.
- Options to Improve processes:
  - Utilize continuous delivery and automated testing to speed up processes
  - Break down entire processes into features that can be delivered separately
  - Prioritizing delivery
  - Strong communication Methods



# Issues with Long Lead Times

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- **Slow/Behind on Innovation:** As technology continues to change, businesses can struggle trying to quickly respond and release new features
- **Frustration:** Teams can become frustrated with long processes, ultimately affecting their motivation and productivity
- **Risk:** risk can increase with such lengthy processes



# DevOps Ideal

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- Shorter lead times allow for developers to respond quickly to changes and enhances customer satisfaction because developers can deliver values quicker
- **Deployment Lead Times of Minutes:**
  - Developers can receive quick feedback, allowing for quicker deployment.
  - Utilizing automated testing can help speed up processes
  - Continuously checking small code changes
  - More frequent and smaller deliveries



# Resources

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- Alliance, A. (2023, March 12). *What is lead time in software development?*. Agile Alliance | <https://www.agilealliance.org/glossary/lead-time/>
- Johnson, B. (n.d.). *Lead time vs cycle time in software development: Linearb blog*. LinearB. <https://linearb.io/blog/lead-time-vs-cycle-time#lead-time>
- *Dora Metrics: 4 key metrics for improving DevOps performance*. Codefresh. (2023, September 28). <https://codefresh.io/learn/software-deployment/dora-metrics-4-key-metrics-for-improving-devops-performance/#:~:text=Delivery%20cycles%20help%20understand%20the,indicate%20an%20efficient%20development%20process.>

