The Technology Value Stream
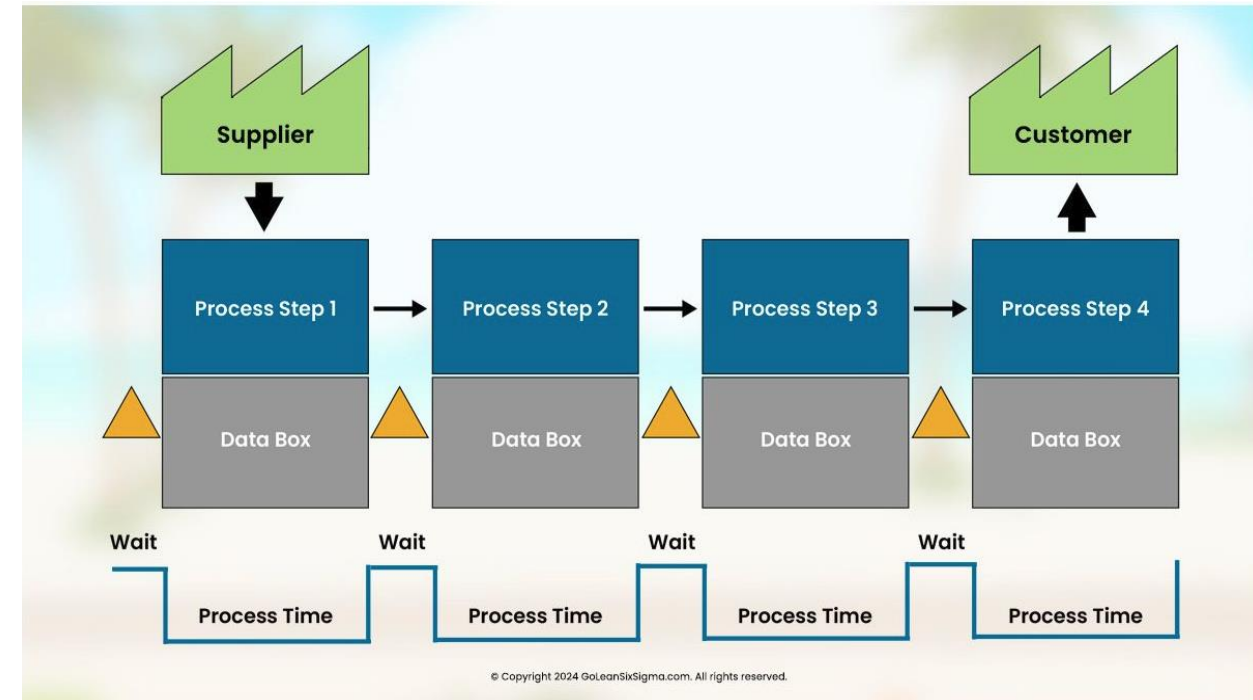
Optimizing Process and Flow

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What is a value stream?

- A value stream is the full process of delivering a product or service to a customer.

- It starts with an idea or hypothesis and ends with customer value delivery. A quality product and satisfied customer.

- Includes all steps: design, development, testing, deployment, and operation.

- Goal: Identify where value is created and where waste occurs to improve efficiency.

Managing The Value Stream

- Value Stream Management or VCM measures the flow of value during business and technology activities.

- Helps teams see what procedures add value, and which ones don't.

- Coordinates and aligns DevOps and Agile methodologies with the business goals.

- Commonly used in software development and is focused on customer-centered value creation.
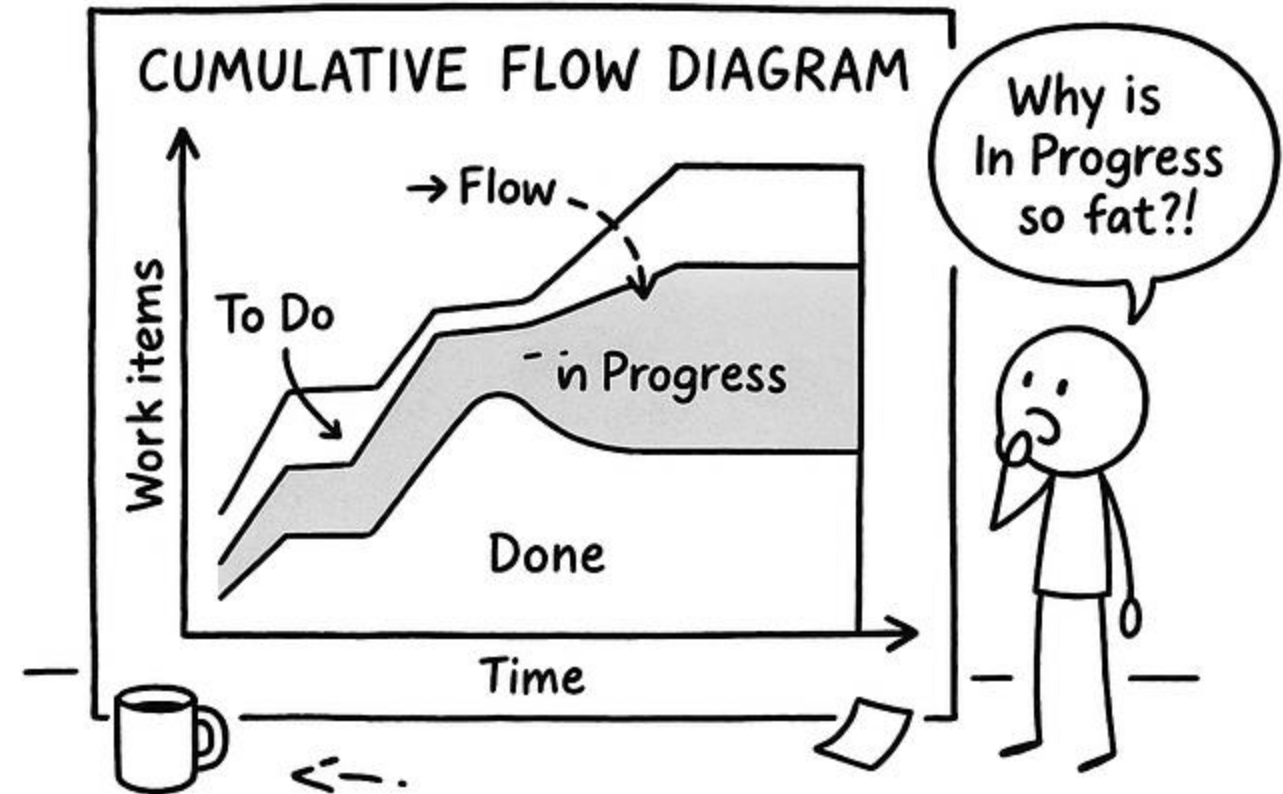
In The world of DevOps

- The technology value stream converts a business idea into a working service.

- Begins when work is added to the development team backlog.

- Involves design, coding, testing, deployment, and monitoring.

- Value is only realized when the service runs successfully in production.

- Emphasizes both fast delivery, flexibility and stability.

Lead Time vs. Processing Time

- Lead Time: Total time from customer request to delivery.

- Processing Time: Time spent actively working on the request (not waiting).

- Lead time = What the customer experiences. What the customer is told

- Shortening lead time requires reducing queue, wait times, and adding efficiency.

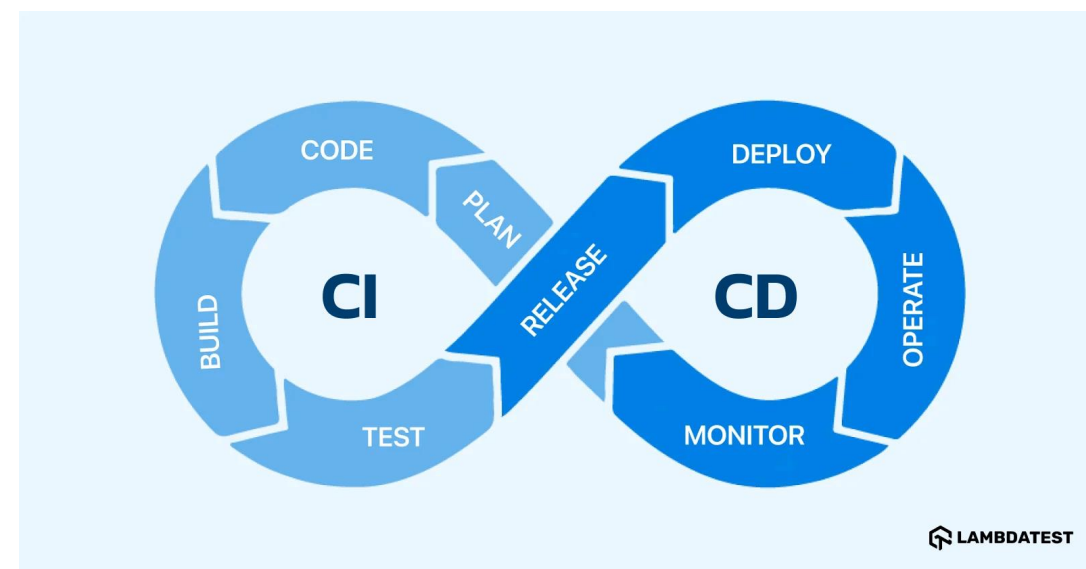- Focus on improving flow efficiency for faster feedback and value.

Common Scenario: Deployment Lead Times Are Too Long

- Many organizations face months-long deployment cycles.

- Common issues:
  o Monolithic systems

  o Manual testing

  o Limited testing environments

  o Multiple approval steps

- Consequences:
  o Integration chaos

  o High stress and tension amongst teams

  o Poor customer outcomes

Deployment In Minutes: A DevOps Perfect World

- Deployment lead times measured in minutes, not months.

- Accomplished through:
  - Small, frequent code commits
  - Automated testing and CI/CD
  - Modular, loosely coupled architectures
  - Fast feedback loops and monitoring

- This enables rapid, reliable releases and continuous improvement.

Benefits Of Measuring the Value Stream

- Speeds time to value by eliminating waste and delays.

- Improves team collaboration and visibility across functions.

- Provides measurable metrics and KPIs for continuous improvement.

- Aligns technology investments with business priorities and outcomes.

The technology value stream connects business ideas to customer value. Greater customer satisfaction is achieved by continuous improvement to company flow and agility.

References

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