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Day 2 of 100 Days Challenge – Learnings from @abhishekveeramalla

Enhancing the Software Development Life Cycle with DevOps

Overview

The **Software Development Life Cycle (SDLC)**

provides a structured framework to design, develop, and deliver software. Integrating **DevOps** practices into SDLC enhances automation, collaboration, and efficiency, ensuring faster and more reliable software delivery.

Phases of SDLC

1. Planning and Requirements

- Gathering and analyzing stakeholder requirements to align project goals with user needs.

2. Defining

- Clearly documenting all gathered requirements into actionable plans for development and testing teams.

3. Designing

- **HLD:** System architecture, defining major components.

- **LLD:** Detailed design of individual modules and interactions.

4. Building (Development)

- Writing and integrating code, stored in version control systems like Git.

5. Testing

- Ensuring functionality and quality through rigorous and automated testing.

6. Deployment

- Releasing software into production with minimal disruptions.

Role of DevOps in SDLC

DevOps optimizes SDLC by:

- **Automation:** Reducing manual tasks for faster feedback loops.
 - **Collaboration:** Bridging gaps between development and operations teams.
 - **CI/CD Pipelines:** Automating integration and deployment processes.
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