**README.md**

**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.