

DevOps - Modern Software Development

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GitHub Repository

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- ▶ Scrum / Colaboration Tools (Github Project, Azure DevOps, Jira, Trello, etc.)

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- ▶ CI / CD pipelines

DevOps

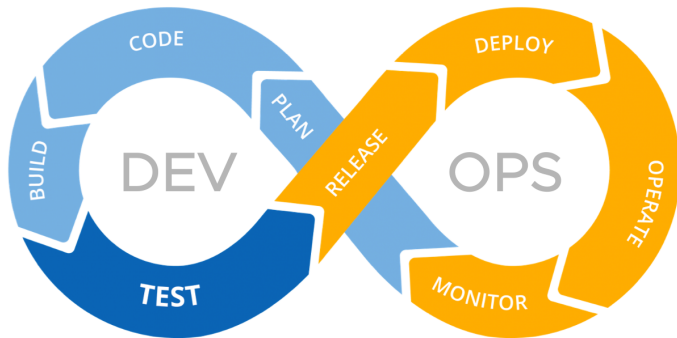


Figure: DevOps Lifecycle (http://blogs.vmware.com/management/files/2020/03/2020-03-02_14-18-57.png 2024-05-02)

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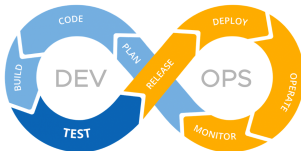


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- ▶ Plan/Collaborate
- ▶ Coding
- ▶ CI/CD
- ▶ Operate and Monitor (Containerization)

Example - PyPI

Sample python package with a bug that needs fixing ([GitHub](#), [PyPI](#)).

- ▶ Planning with estimation
- ▶ Coding with AI support (including unit test)
- ▶ Check pipelines

Example - Docker Container

Sample asp.net core web API project with Docker containerization and Docker Hub deployment ([GitHub](#), [Docker Hub](#)).

- ▶ Container vs. virtual machine
- ▶ Docker file and docker compose
- ▶ Build and deploy pipelines