



# DEVELOPMENT & OPERATIONS ( Dev Ops )

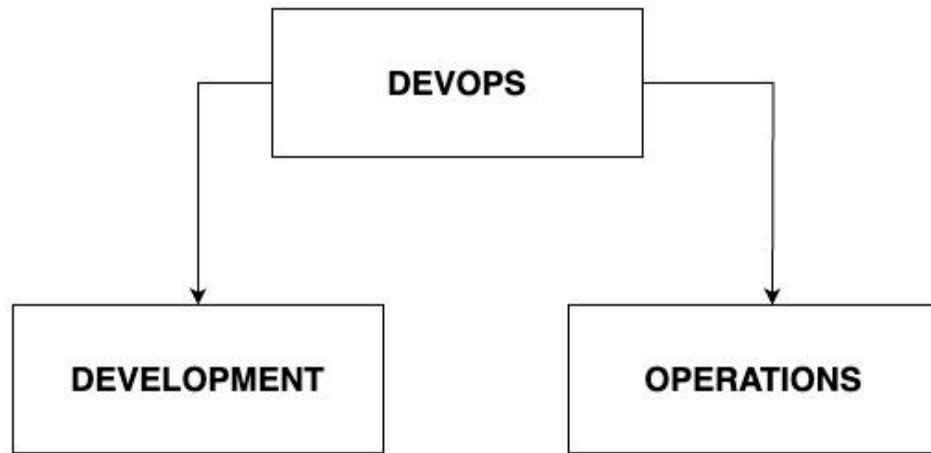
*“MSc (CA) – SICSR”*



# About Your Instructor

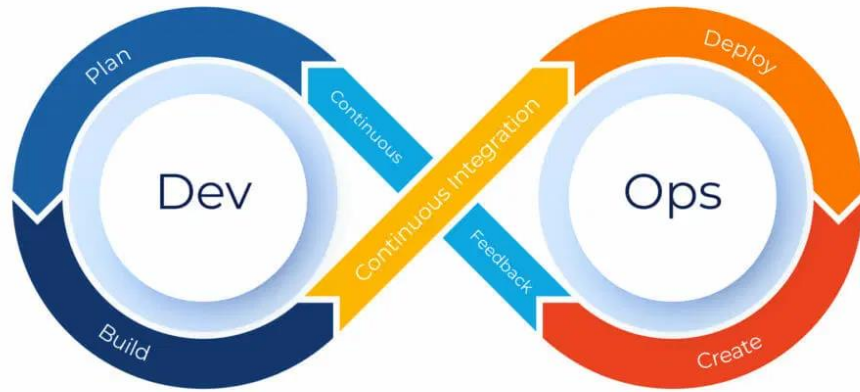
- Name – Ajit Wadekar
- LinkedIn - <https://www.linkedin.com/in/ajit-wadekar-974bab3/>
- Education – M.S ( Computer Science ) - <https://woolf.university/>
- Role – Director of Engineering, VIT Infotech
  - <http://www.vitinfotech.com>
  - <https://intrak.ai>
  - <https://intellibuddies.com>
- Experience - 18 years in software engineering, specializing in scalability, automation, and modern deployment practices.
- Accomplishments:
  - Delivered large-scale software solutions across multiple industries.
  - Expertise in building high-performing engineering teams.

# What is DevOps



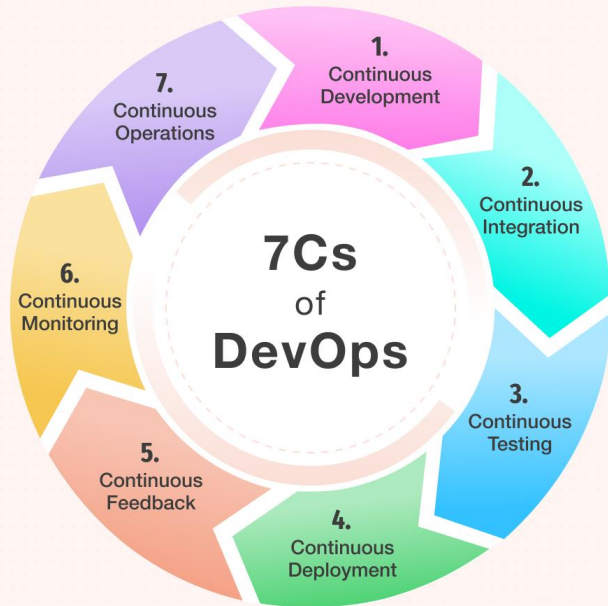
- DevOps is a **cultural and technical approach** that bridges Development (Dev) and Operations (Ops).
- Focuses on **improving collaboration, automating processes**, and delivering software faster and more reliably.
- Integrates **practices, tools, and philosophies** to streamline the **software development lifecycle (SDLC)**.
- Aims to enhance **efficiency, quality, and delivery speed** in software engineering.

# DevOps LifeCycle



- Plan – Define the requirements and roadmap
- Develop – Write and build the code
- Build – Use CI pipelines to test and compile the application
- Release – Prepare the application for deployment
- Deploy – Automate deployment processes to production
- Operate – Maintain system performance and availability
- Monitor – Collect and analyze metrics for improvement

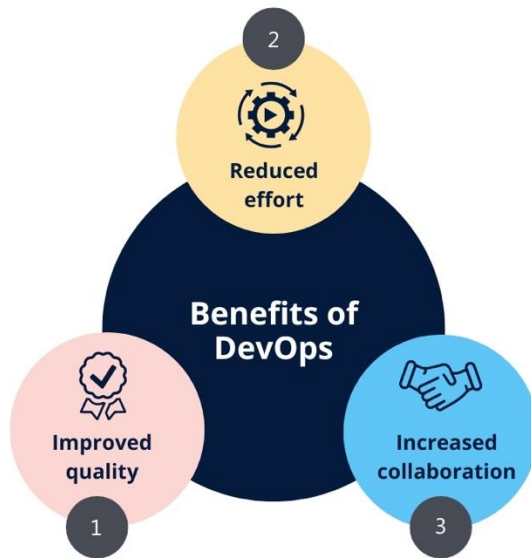
# 7c's of DevOps



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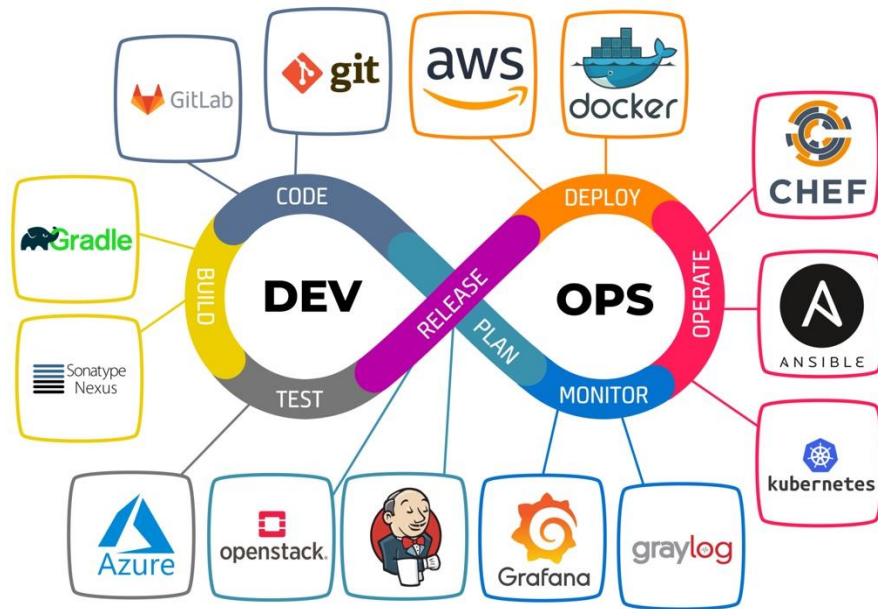
1. Continuous Development
2. Continuous Integration
3. Continuous Testing
4. Continuous Deployment
5. Continuous Feedback
6. Continuous Monitoring
7. Continuous Operation

# Benefit of DevOps



- **Faster Delivery** – Reduced time to market for new features
- **Improved Quality** – Automated testing catches issues early
- **Higher Efficiency** – Automation reduces manual work
- **Better Collaboration** – Enhanced communication and transparency between teams
- **Scalability** - Easily scale infrastructure to meet demand

# DevOps Tools



- Version Control
  - Git (<https://git-scm.com> )
  - GitHub (<https://github.com> )
- CI / CD
  - Jenkins ( <https://www.jenkins.io/> )
- Configuration Management
  - Puppet - <https://www.puppet.com/>
  - Chef - <https://www.chef.io/>
- Containerization –
  - Docker - <https://www.docker.com/>
  - Kubernetes - <https://kubernetes.io/>
- Monitoring –
  - Grafana - <https://grafana.com/>
  - DataDog - <https://www.datadoghq.com/>





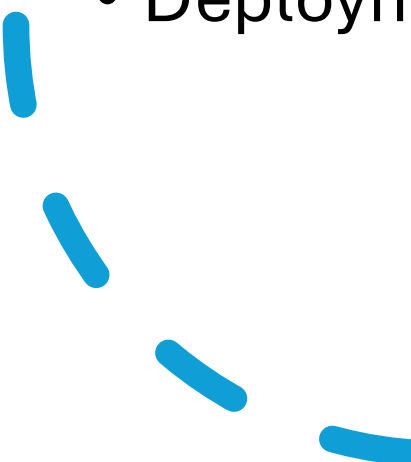
# Summary

- DevOps is more than just tools; it's a culture shift toward better collaboration, automation, and delivering value to customers faster. By adopting DevOps, organizations can stay competitive in today's fast-paced software-driven world.





# Next Lecture

- Scalability - Ensures growth
  - Availability – Ensure uptime
  - Continues Integration – Improves collaboration and code quality
  - Automation – Simplifies processes
  - Deployments – Delivers value to users efficiently
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# Q & A

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Thank you for your attention! Let's discuss your questions

Feel free to ask anything about today's topics