

KEYNOTE PRESENTATION

Technology

ooo

DEVOPS

CI-CD

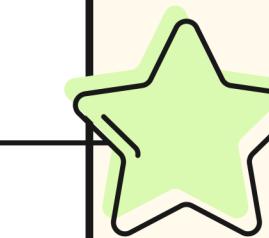


Testing

Developers

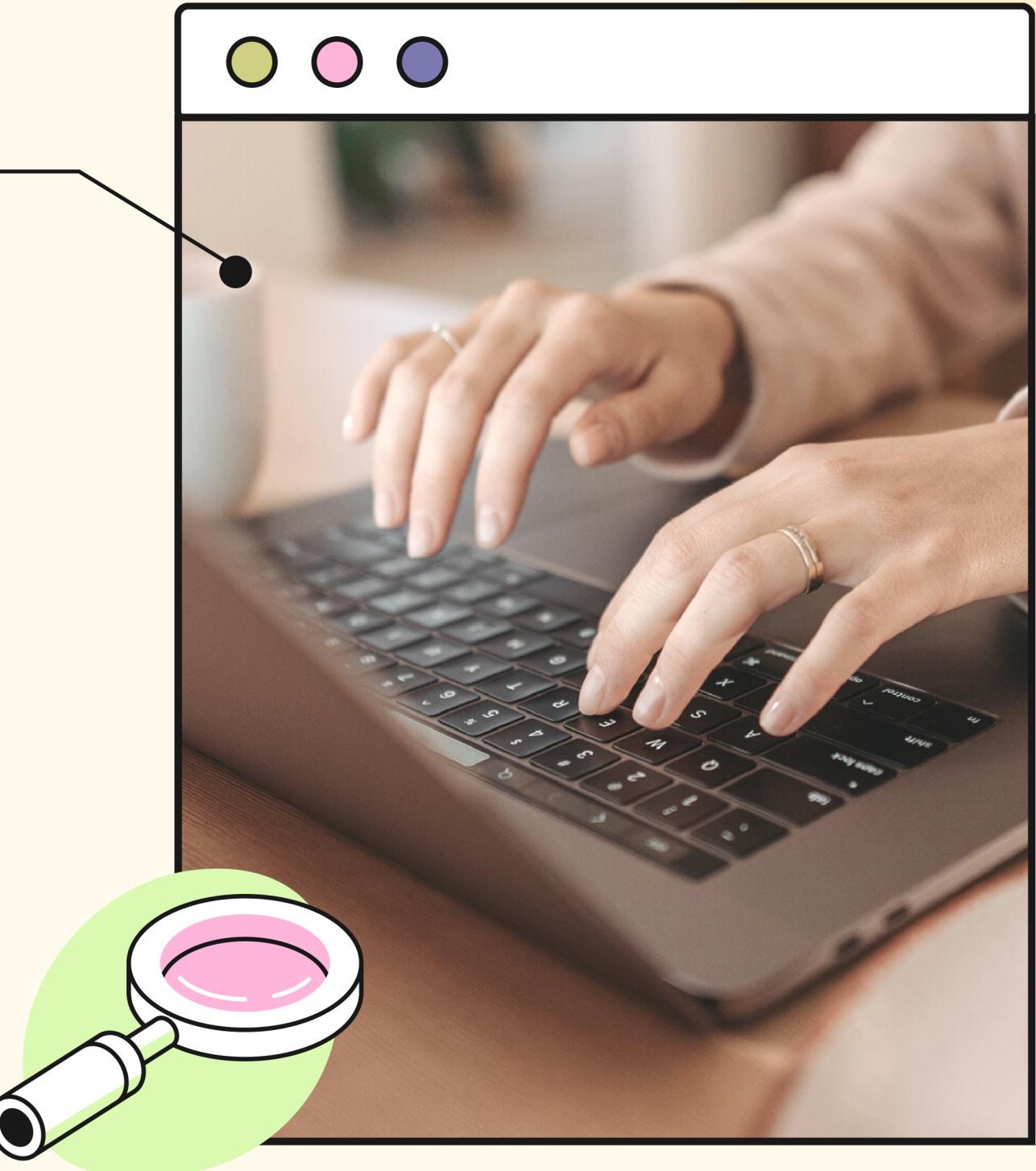


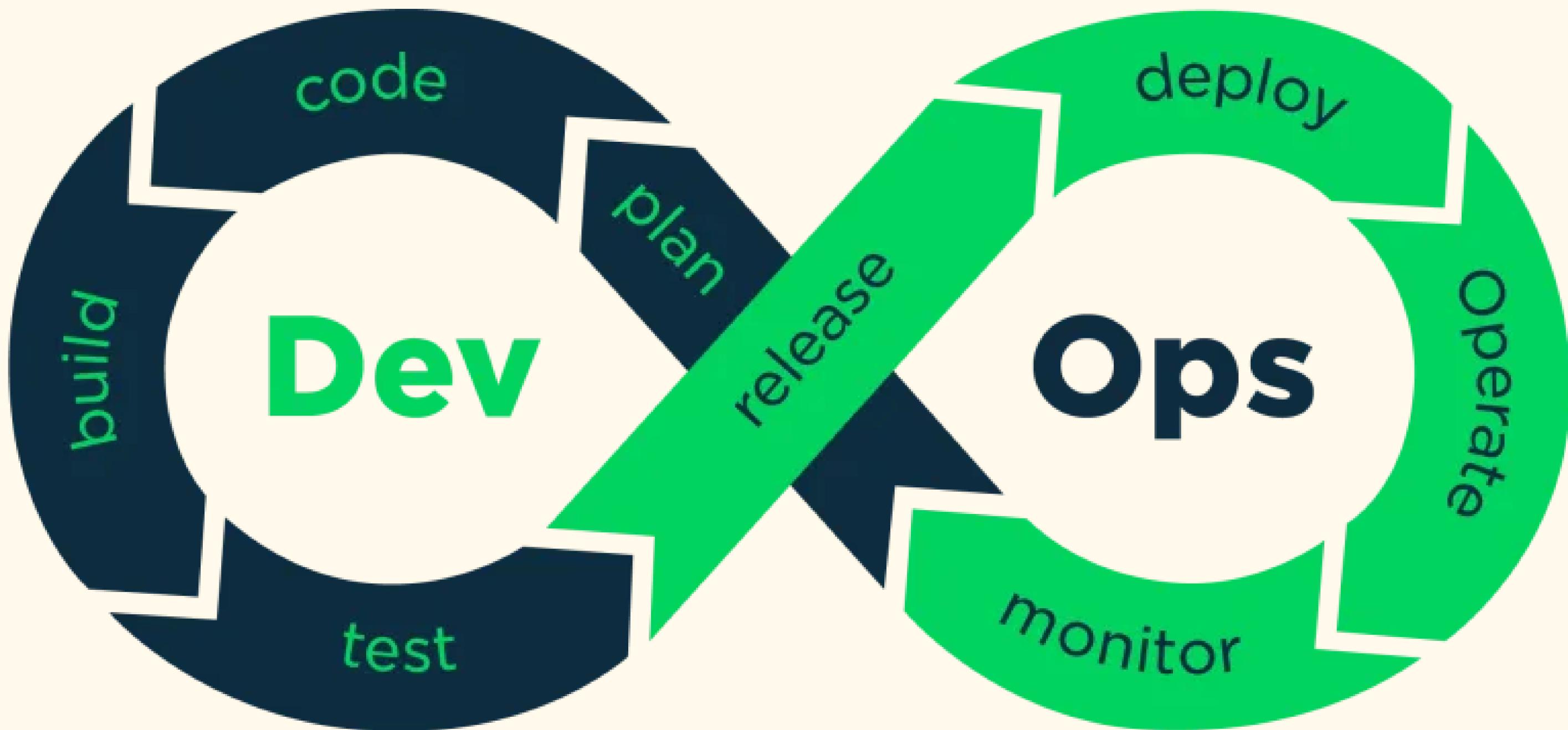
Feedback



INTRODUCTION

A DevOps CI/CD pipeline is a set of practices, tools, and workflows used to automate and streamline the software development process. CI/CD stands for Continuous Integration and Continuous Delivery/Deployment.





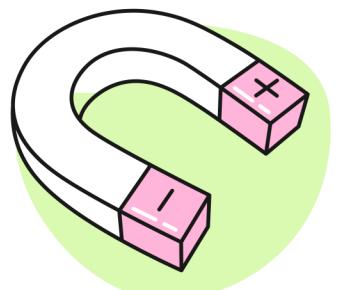
PROBLEM STATEMENT

SILOED TEAMS



Traditionally, development and operations teams worked independently of each other, leading to communication gaps, conflicting priorities, and a lack of collaboration.

LACK OF AUTOMATION



Without automation, developers had to perform repetitive tasks manually, leading to inefficiencies and delays.

MANUAL PROCESSES



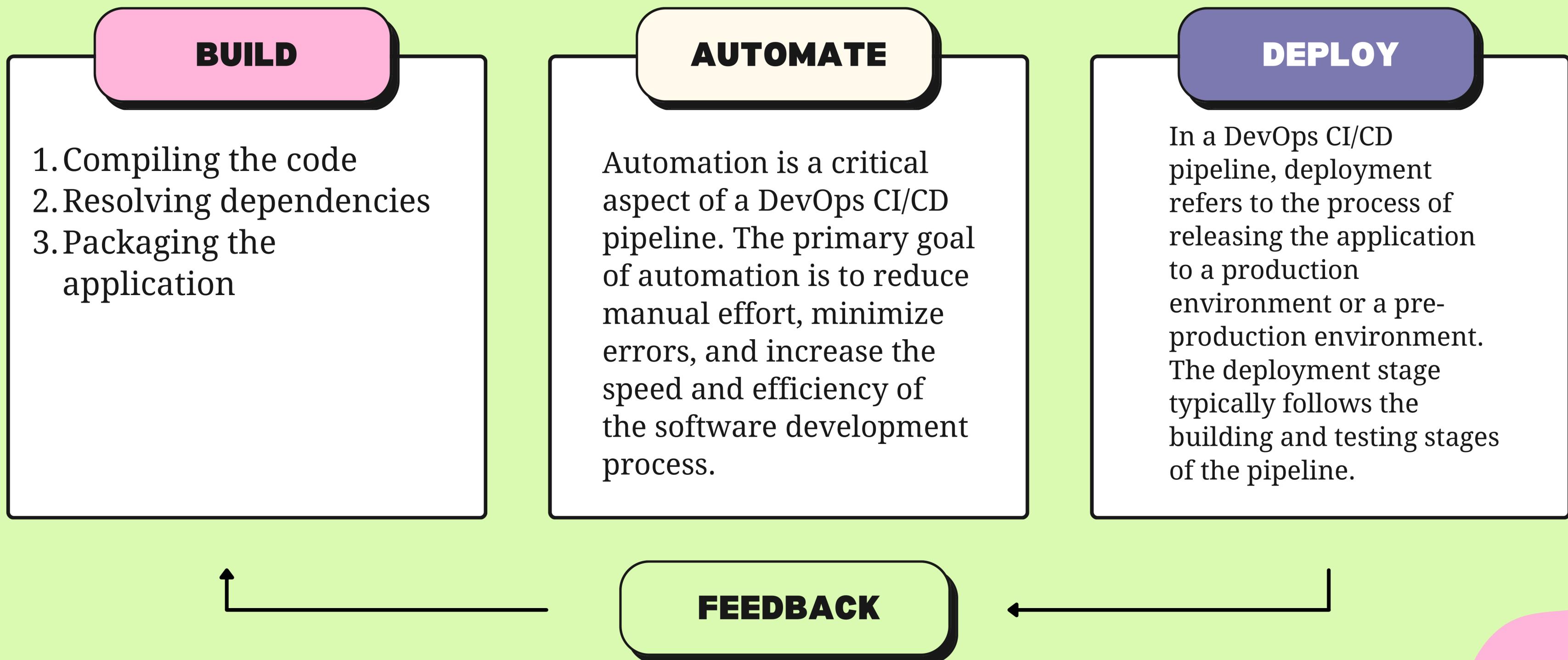
Many software development processes were manual, time-consuming, and error-prone. tasks such as building, testing, and deploying applications, leading to delays and quality issues.

LIMITED VISIBILITY



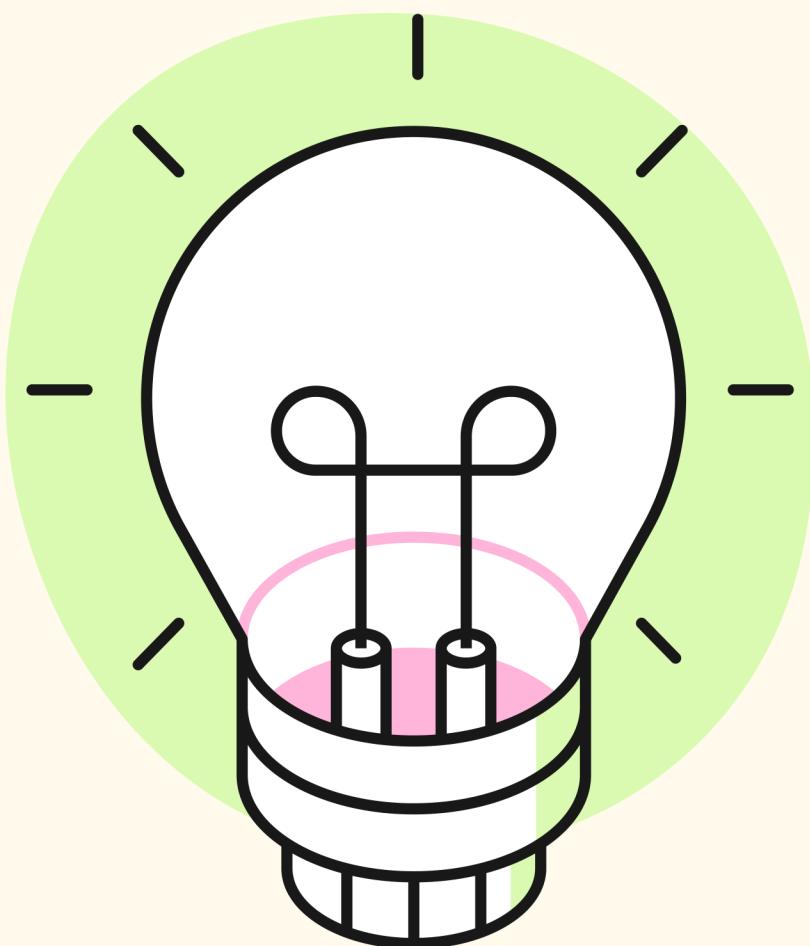
The software development process lacked transparency, with limited visibility into the status of the application at each stage of the development process.

INTRODUCTION



THE MAIN OBJECTIVES OF A DEVOPS CI/CD PIPELINE ARE TO:

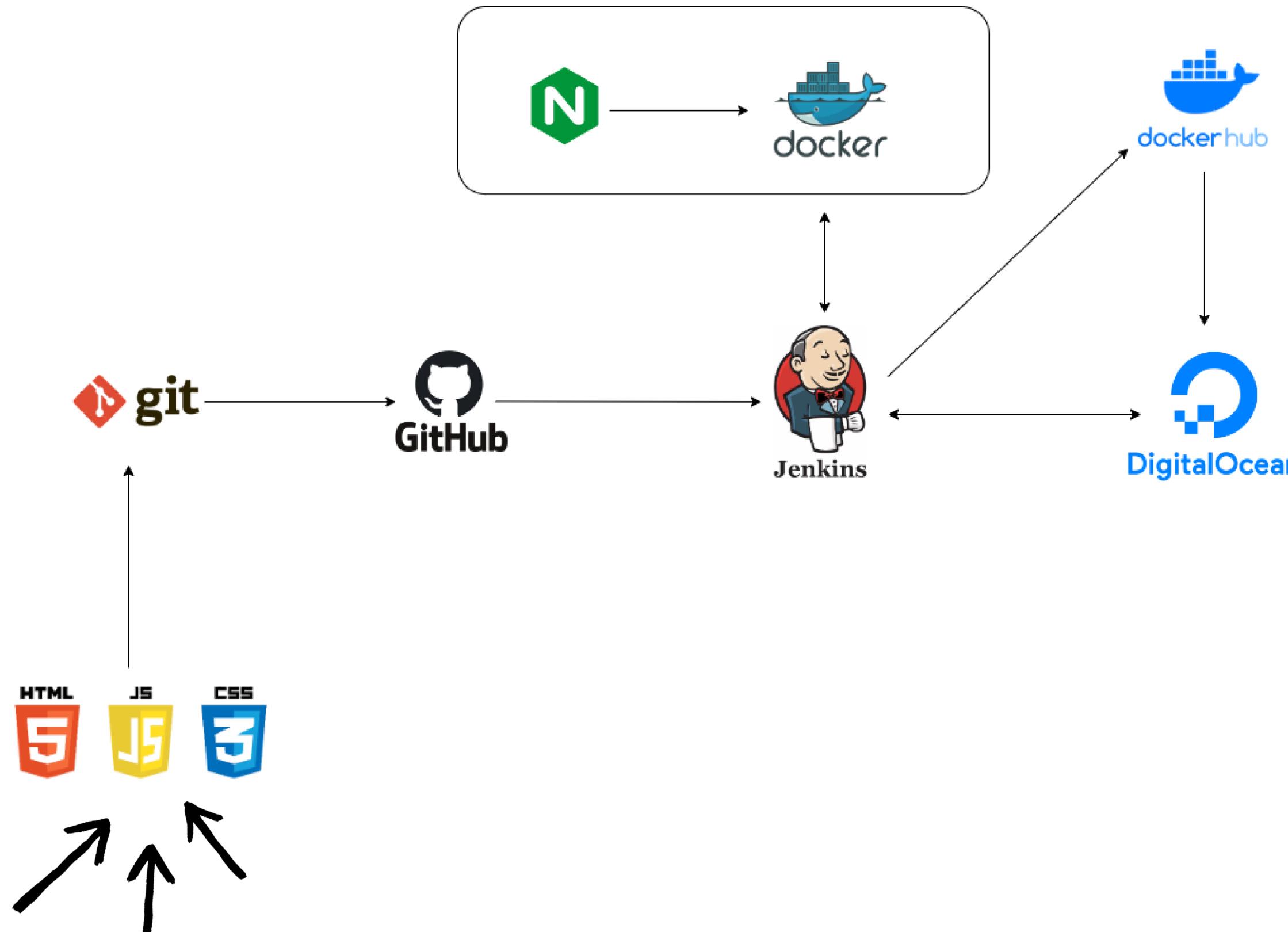
- DevOps CI/CD pipeline aims to improve software quality, accelerate time-to-market, reduce errors and downtime, enhance collaboration, increase efficiency, and improve visibility and traceability.
- Automated testing is integrated into the pipeline to detect defects and bugs early in the development process.
- The pipeline streamlines software development, testing, and deployment to reduce the time required to deliver new features and updates to end-users.
- Automation ensures consistency and eliminates human error, reducing the risk of downtime and service outages.
- DevOps CI/CD promotes collaboration between development, operations, and other stakeholders, breaking down silos and fostering communication and teamwork.
- Automation of the pipeline enables developers to focus on higher-level tasks, while mundane and repetitive tasks are handled by automation tools, increasing efficiency.
- The pipeline provides visibility into the entire software development process, from source code changes to deployment, enabling stakeholders to track the progress of the software and quickly identify any issues.



METHODOLOGY USED

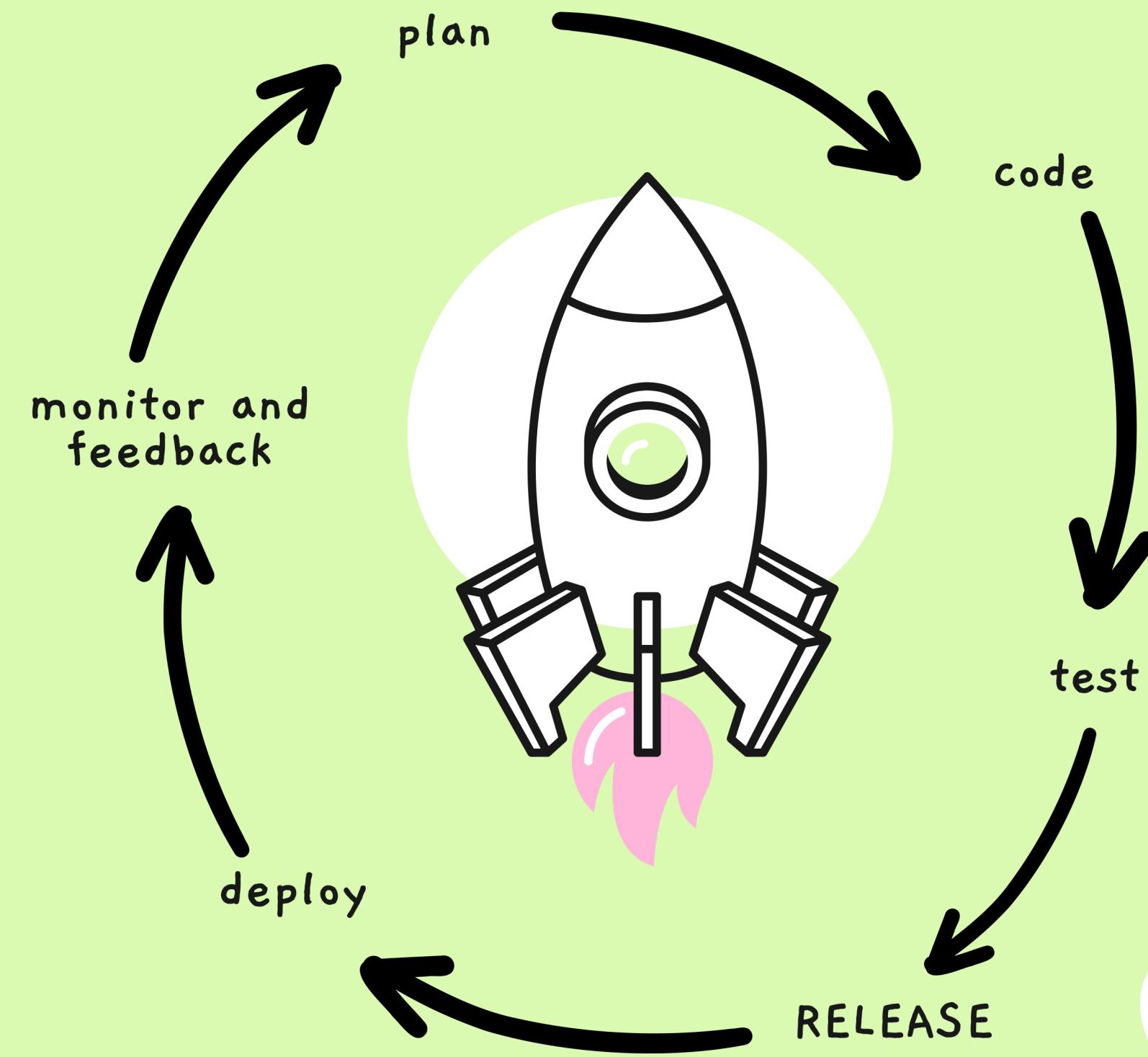
1. Continuous Integration
2. Continuous Testing
3. Continuous Deployment
4. Continuous Monitoring
5. DevOps Collaboration
6. Agile Development

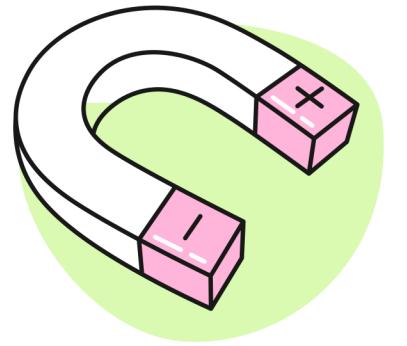
result & output



CICD LIFECYCLE

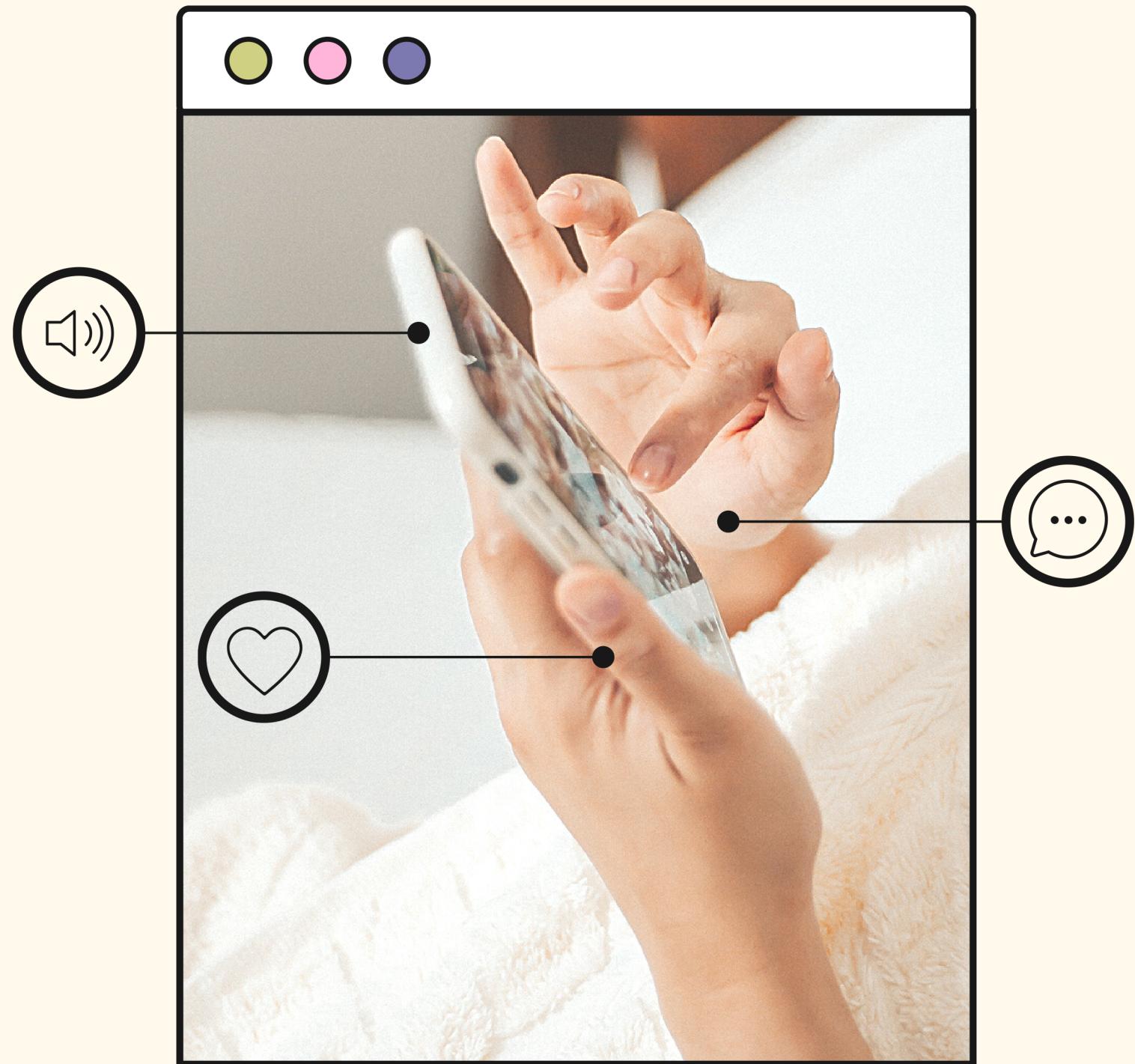
CI/CD lifecycle aims to create a continuous flow of software development and delivery, with each stage automated as much as possible, to ensure that software is delivered quickly, reliably, and with high quality.





FUTURE SCOPE

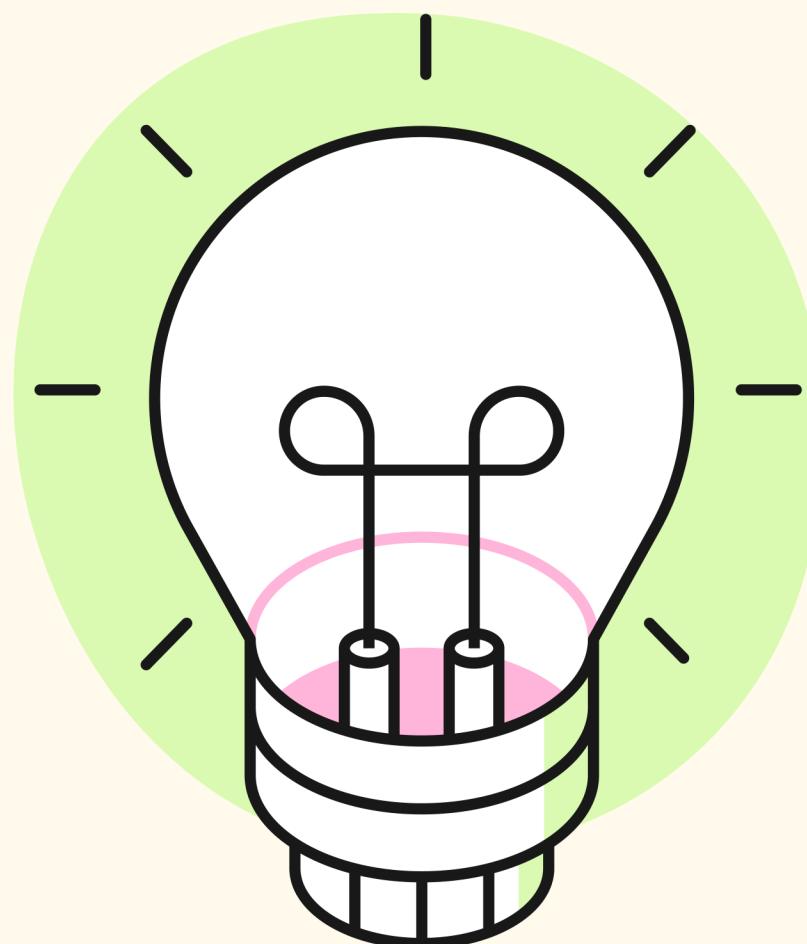
Overall, the future of DevOps CI/CD is likely to involve further automation, greater use of AI and machine learning, and continued innovation in cloud-native technologies and cybersecurity.

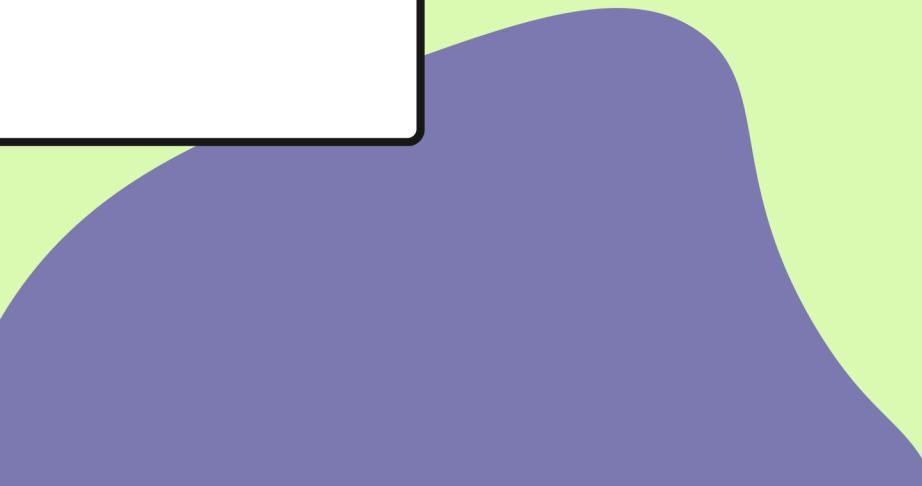
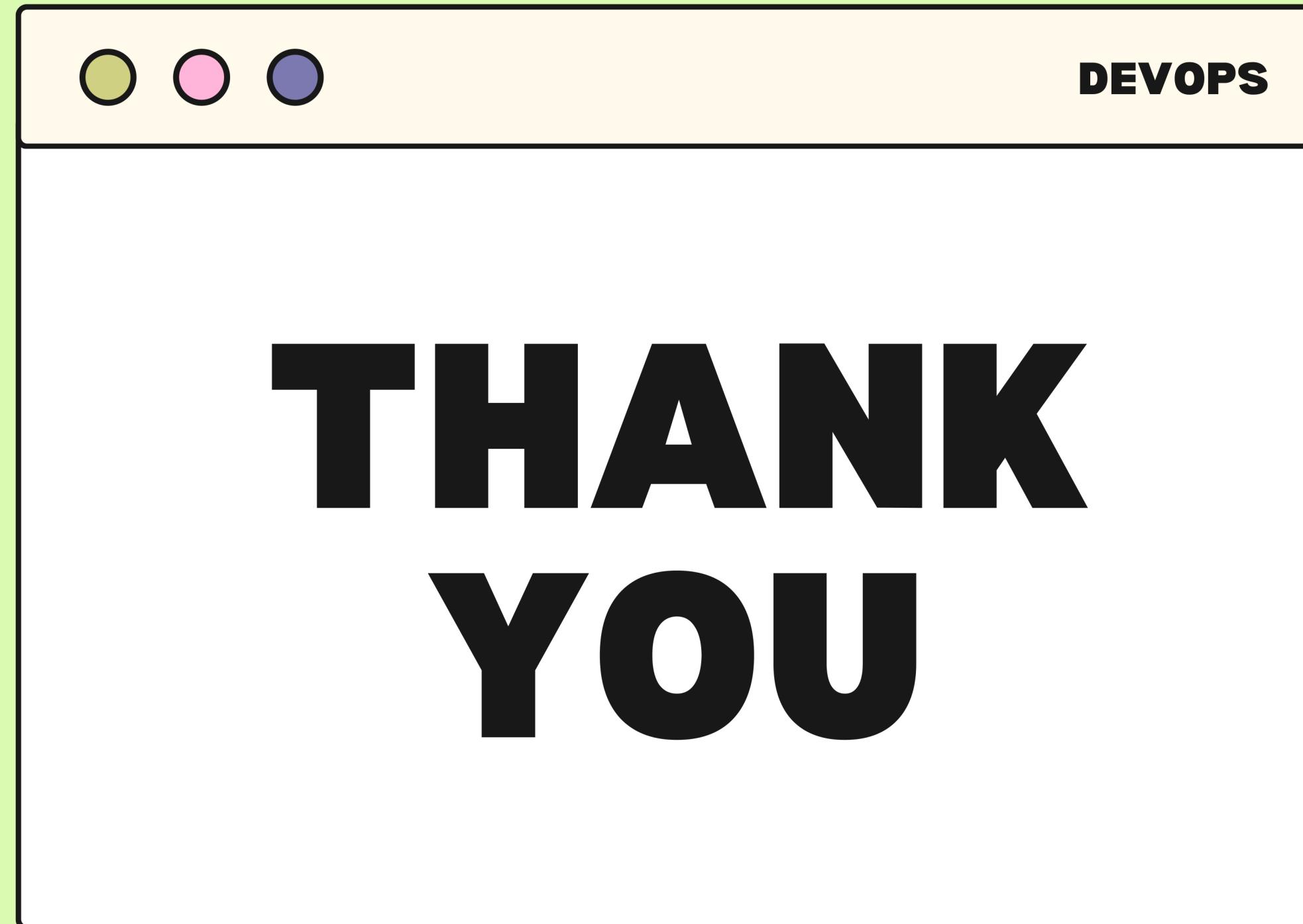




CONCLUSION

In conclusion, implementing a DevOps CI/CD pipeline can bring numerous benefits to software development, testing, and deployment processes. The pipeline allows for automation, collaboration, and continuous improvement, which can help accelerate time-to-market, reduce errors and downtime, and increase efficiency. With the use of a DevOps CI/CD pipeline, organizations can improve software quality and provide a better experience for end-users.





- 1. SHUBHAM (21CDO1062)
- 2. ANKIT (21CDO1058)
- 3. NIKHIL (21CDO1033)
- 4. DURGESH (21CDO1043)

