Udapeople
CI/CD benefits proposal
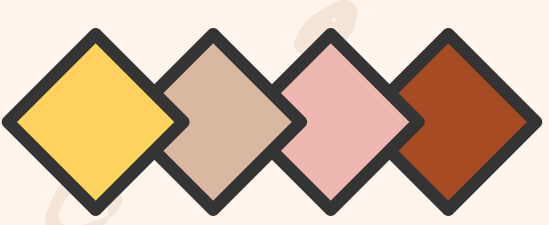
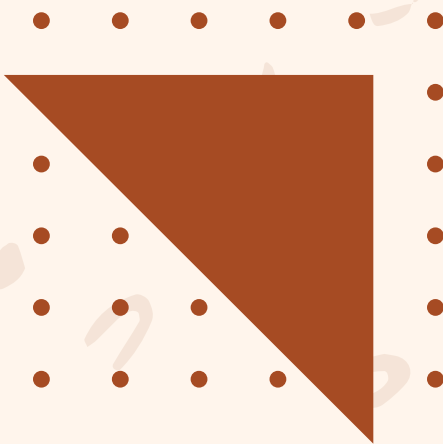# Topic

What is CI/CD?

Continuous Integration:

- Automated Build: The code changes trigger an automated build process to compile the code, create binaries, or generate artifacts.
- Automated Testing: Various tests (unit tests, integration tests, etc.) are run to ensure the code changes haven't introduced regressions or errors.

Continuous Deployment / Delivery:

- Automated Deployment: If the tests pass, the code changes can be automatically deployed to staging or pre-production environments.
- Manual Approval (for Continuous Delivery): In the case of Continuous Delivery, a manual approval step might be required before deploying to production.
- Deployment to Production: Once approved (or automatically, in the case of Continuous Deployment), the code changes are deployed to the production environment.
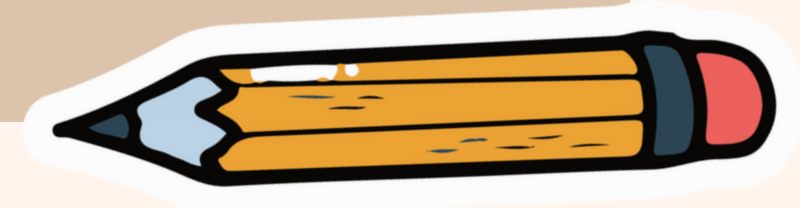
Current problem

1. Manual release process

2. Delays in getting new features into production

3. Late feedback from the business department

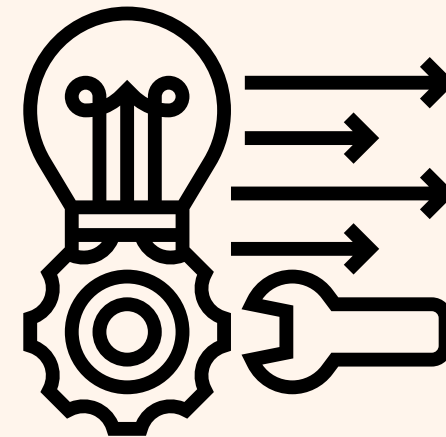4. Error-prone and always leads to delays of production deployments

5. Lost opportunities and revenue

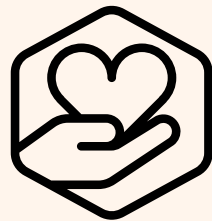6. Prevents us from creating flexible solutions

Solution and benefits

Problem

Manual and error-prone release process and poor software quality

Solution

Implement Continuous Integration: automate compiling, testing, code analysis and artifact storage Automate Infrastructure Creation
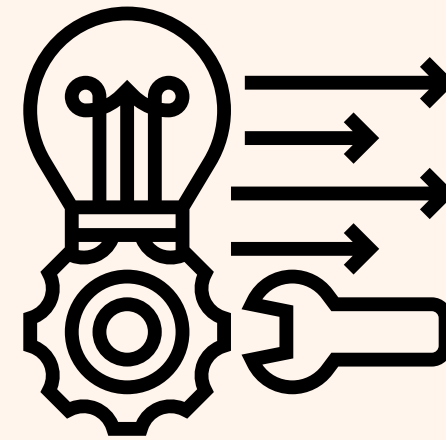
Benefits

o Cost reduction due to less human errors and faster deployments
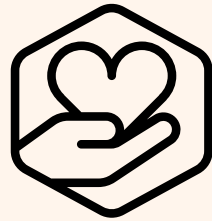o Reduce complexity and safe manual troubleshooting time

Solution and benefits

Problem

Delays in getting new features into production, lost opportunities and revenue

Solution

Catch compile and unit test failures after merge

Benefits

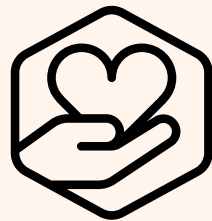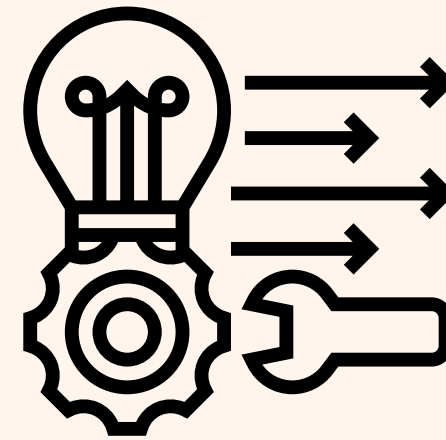o Less bugs in production
o More time for developing new features

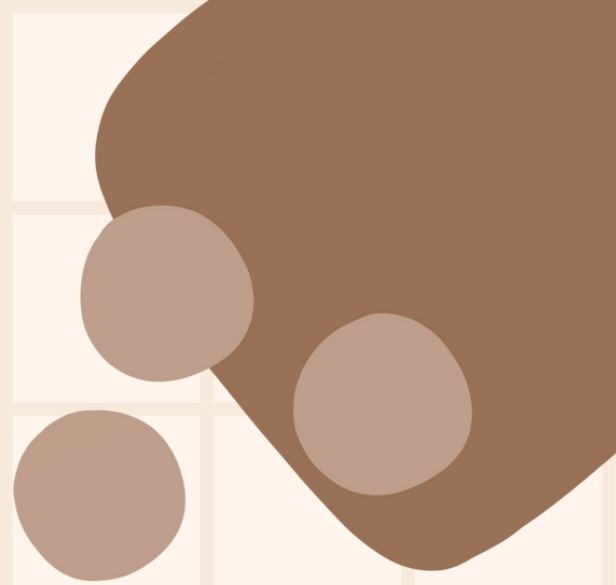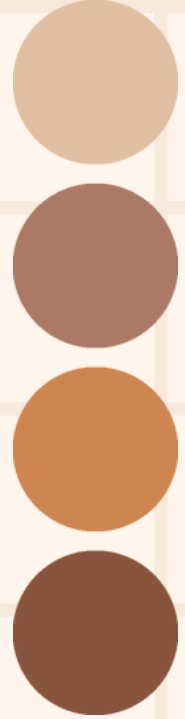# Solution and benefits

Problem

Late customer feedback

Solution

o Implement Continuous Deployment: automated deployment of changes at any given point in time
o Involve customers and business stakeholders already in deployment

Benefits

o Faster feedback cycles of customers lead to higher customer satisfaction rates since they are involved
right from the beginning of feature development/deployment and not just at a fixed release date

THANK YOU SO MUCH!