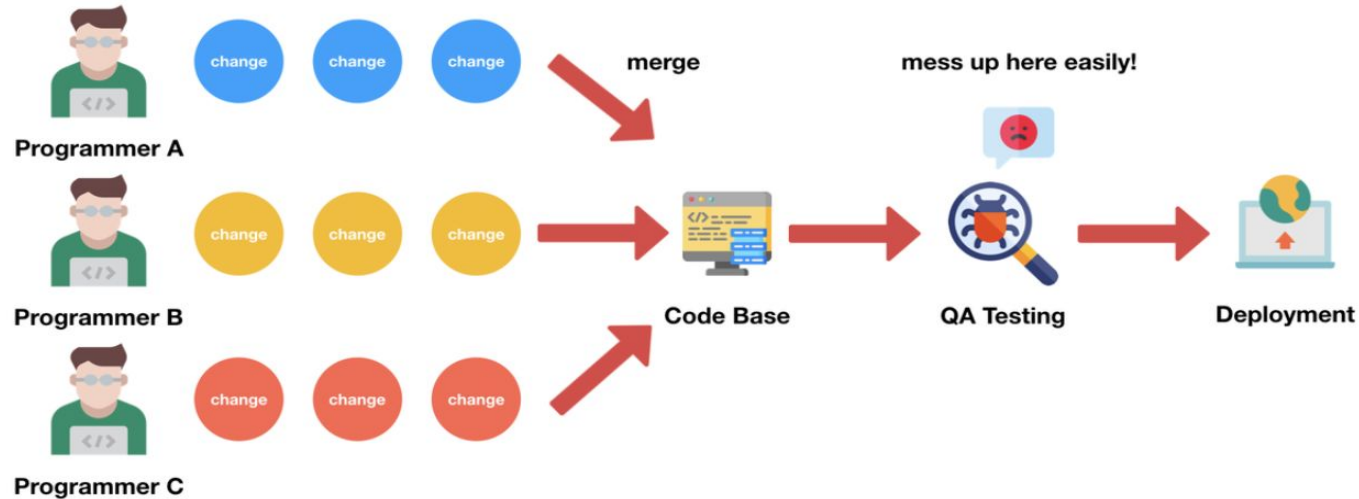# Understanding CI/CD

Why do we need it? Why does it matter?

HOW WE USED TO DEPLOY SOFTWARE

- Delay in getting features to customers
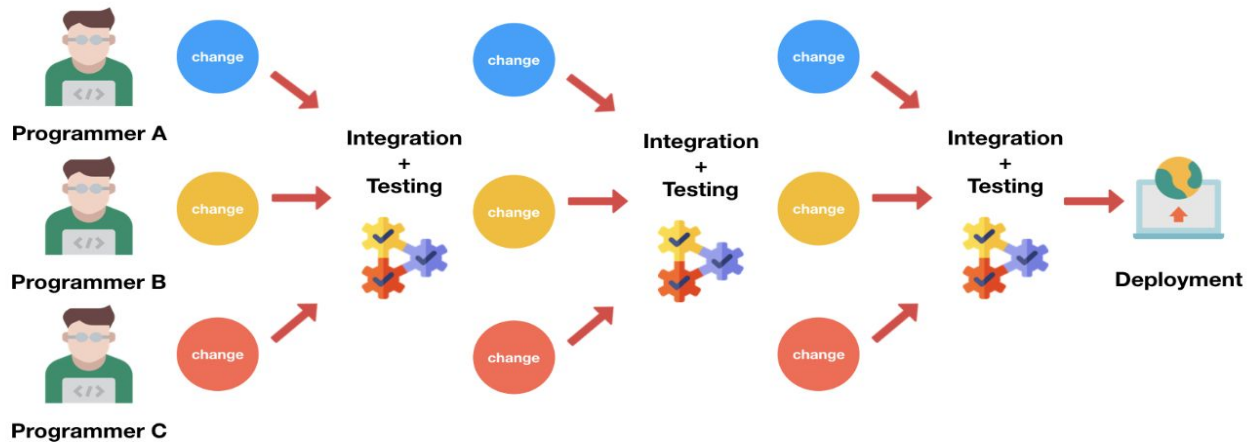- Lost Opportunities & Revenue

- Provisioning too many resources
- Lose money on unused resources
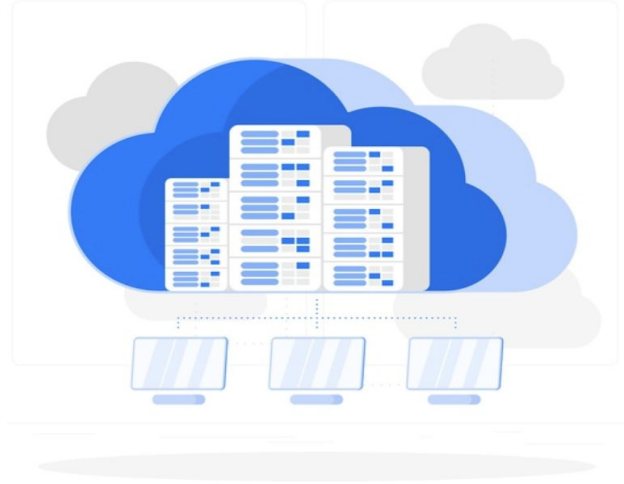- Increased costs YOY and hard to maintain

- Human intervention and manual infrastructure creation
- Unpredictable slow deployments and error prone

WITH CI/CD

Programmer A

change → Integration + Testing

change → Integration + Testing

change → Integration + Testing

Programmer B

change

change

change

Programmer C

change

change

change

Deployment

- Run tests frequently after every merge
- Less bugs in production more time to build new features

- Scale infrastructure on-demand
- Avoid extra costs

- Automatic infrastructure provisioning and monitoring
- Less human errors & faster deployments