DEVOPS

WHY DEVOPS?

Development + Operations

Dev/QA

Admins/Nw tech/DBA

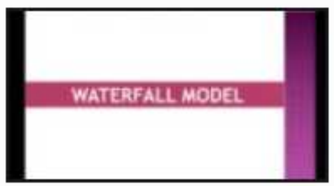
Coding
Design
Testing

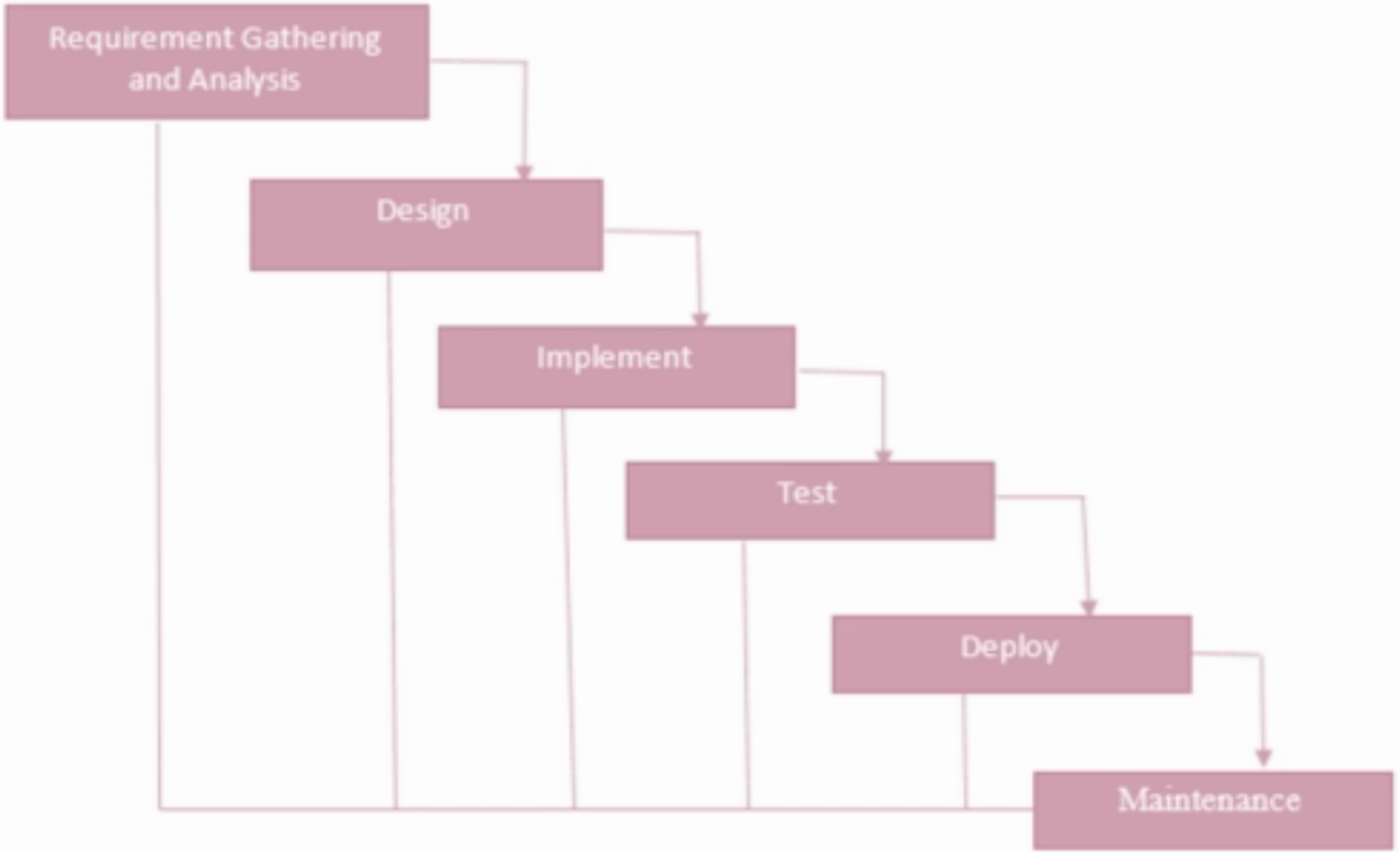
Infra

Change.

Checks

WATERFALL MODEL




Requirement Gathering and Analysis
Design
Implement
Test
Deploy
Maintenance

CHALLENGES IN WATERFALL MODEL

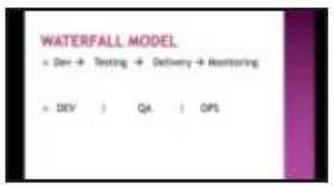
- Slow
- Time taking
- Bug fixing is slow
- Software is delivered only after complete software is ready
- Not flexible
- No proper configuration management
- Monitoring the infrastructure

WATERFALL MODEL

- Dev → Testing → Delivery → Monitoring

- DEV | QA | OPS

AGILE MODEL


WATERFALL MODEL
Dev → Testing → Delivery → Monitoring
DEV | QA | OPS

AGILE METHODOLOGY

Dev Team(QA)	Ops Team

fast

CD + CT + CI.

Dev + Testing

W1 → M1

M1 (testing) + M2 (dev)

WHY DEVOPS?

- Gap between the teams
- Challenges of traditional methodologies
- Faster Delivery
- Quality Product
- Less Resources

WHAT IS DEVOPS?

- Continuous Development,Continuous Testing,Continuous Integartion, Continuous Deployment and continuous monitoring is Devops
- CDev→CTest→CIntegration→CDep→Cmon
- DEV+QA+OPS

SUMMARY

Waterfall → Dev + Test + Deploy + Monitor

Agile → CD + CT + CI + Deploy + Monitoring

Devops → CD + CT + CI + CD + CM

CD+CT+CI+CD+CM

- Automating the workflow
- Integrating different devops tools
- Collaboration between the teams

WHAT IT IS AND WHAT IT IS NOT?

- Devops is a methodology.
- It is a cultural change
- Not a language
- Not a tool
- Not a technology
- Not simply set of tools !!

DEVOPS TOOLS

- VCS →
  Git,SVN,TFS,Perforce
- Build Tools→
  Maven, Ant, Gradle
- Continuous Integration Tools→
  Jenkins,Bamboo,Hudson
- Continuous Testing Tools→
  Selenium,Junit,TestNG
- Containerisation Tools →
  Docker,Rkt
- Configuration Management Tools →
  Puppet,Ansible,Chef,Salt Stack
- Continuous Monitoring Tools →
  Splunk,ELK , Nagios