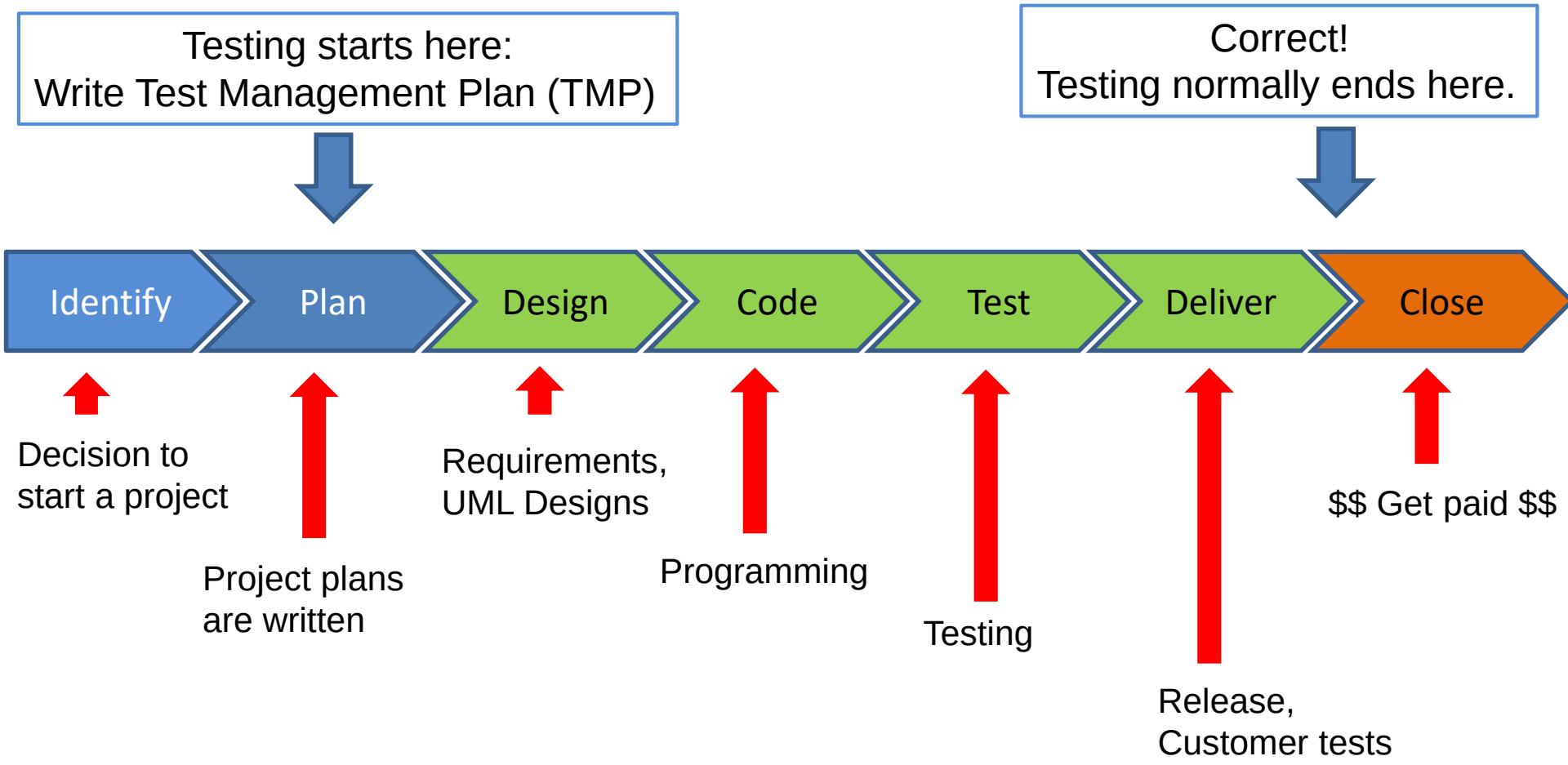
# Software Testing

Introduction To V-Model and Test Levels

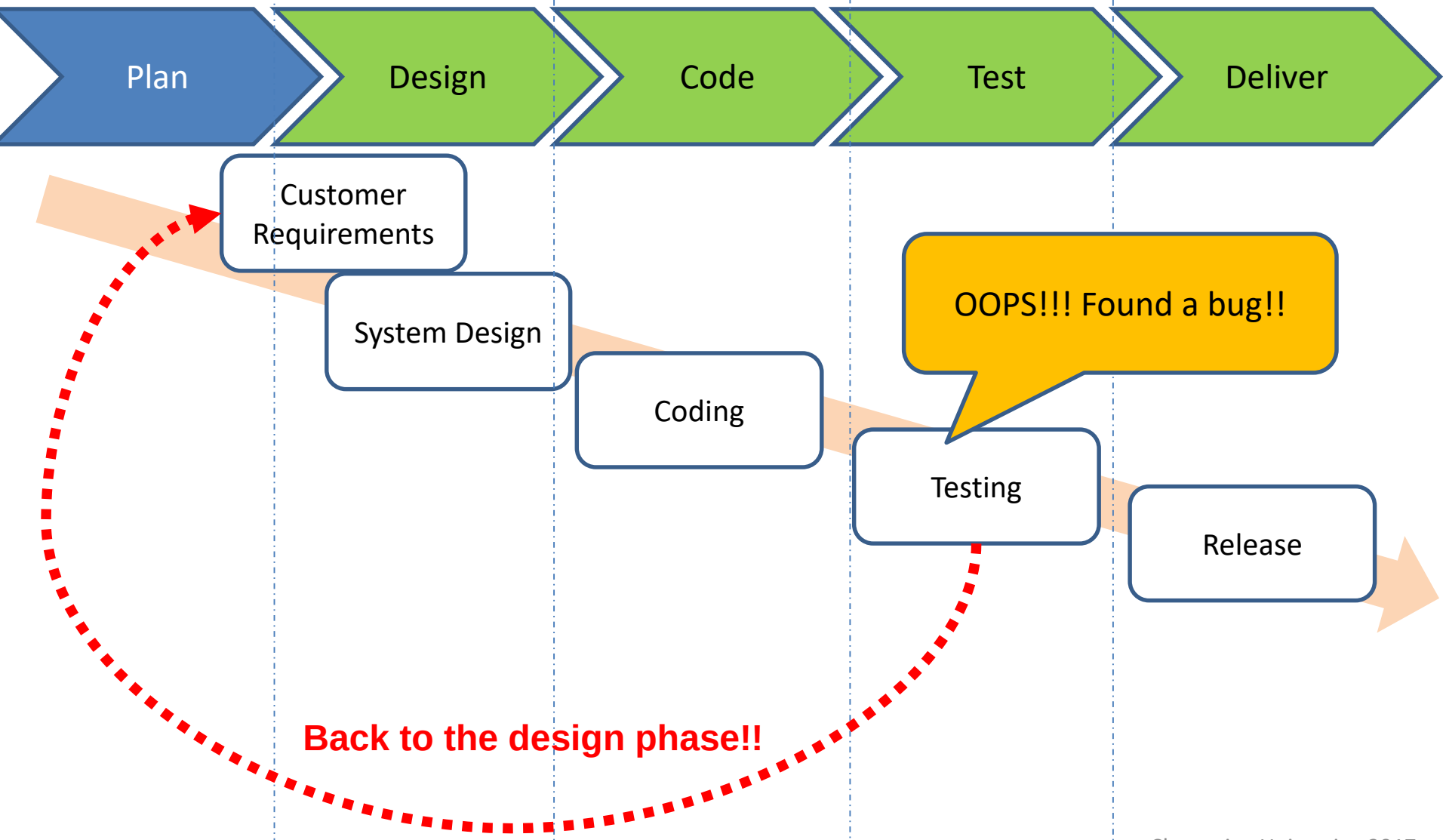
by J. Janvier (Jay/文宇)

# Introduction to the V-Model

# Project Phases

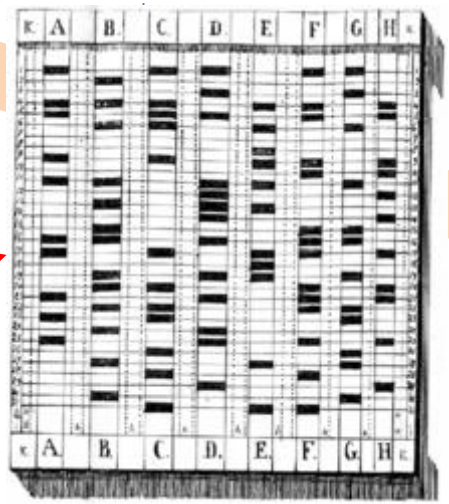


# Waterfall Model



# History Waterfall Model

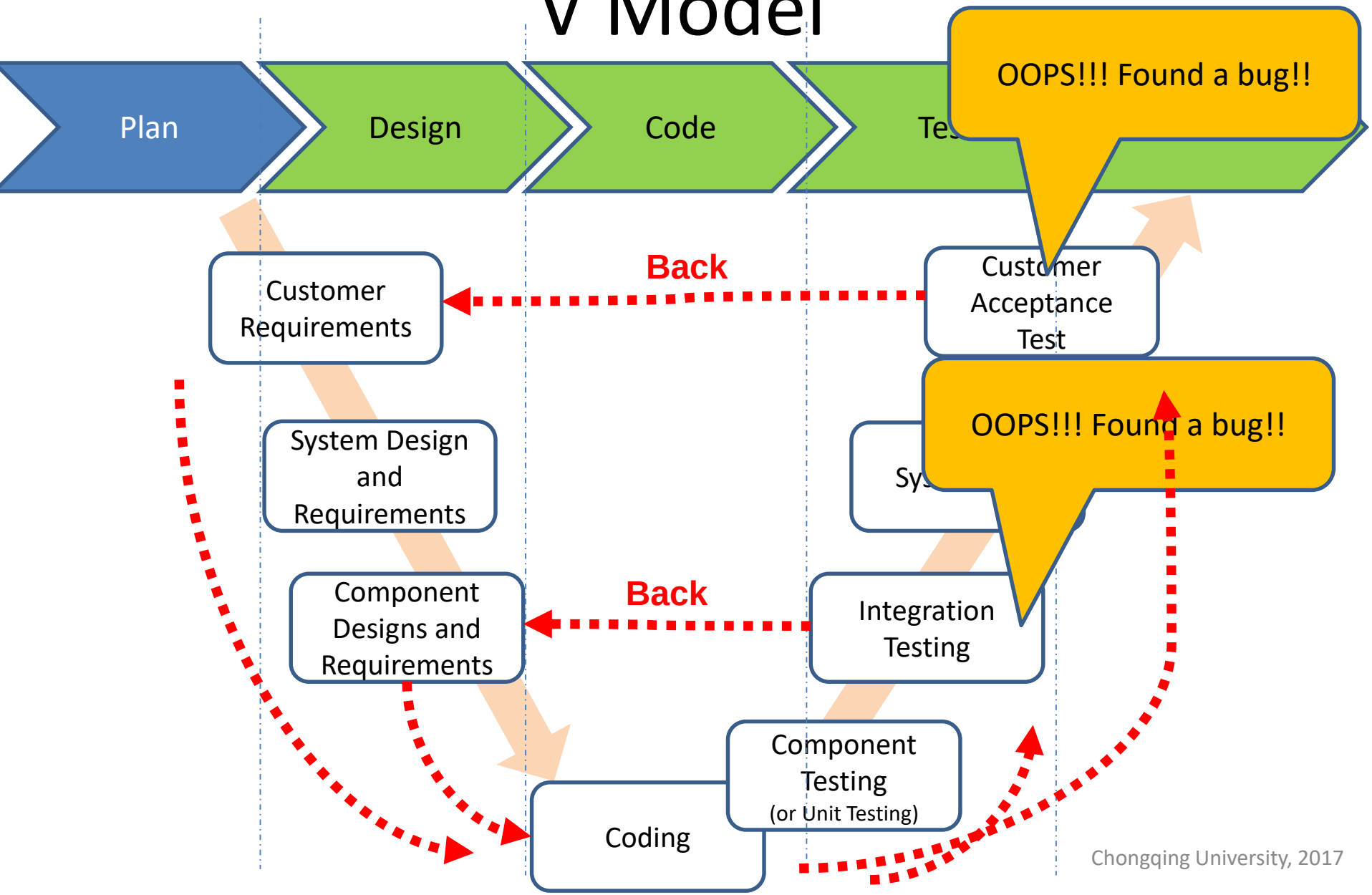
Plan → Design → Code → Test → Deliver



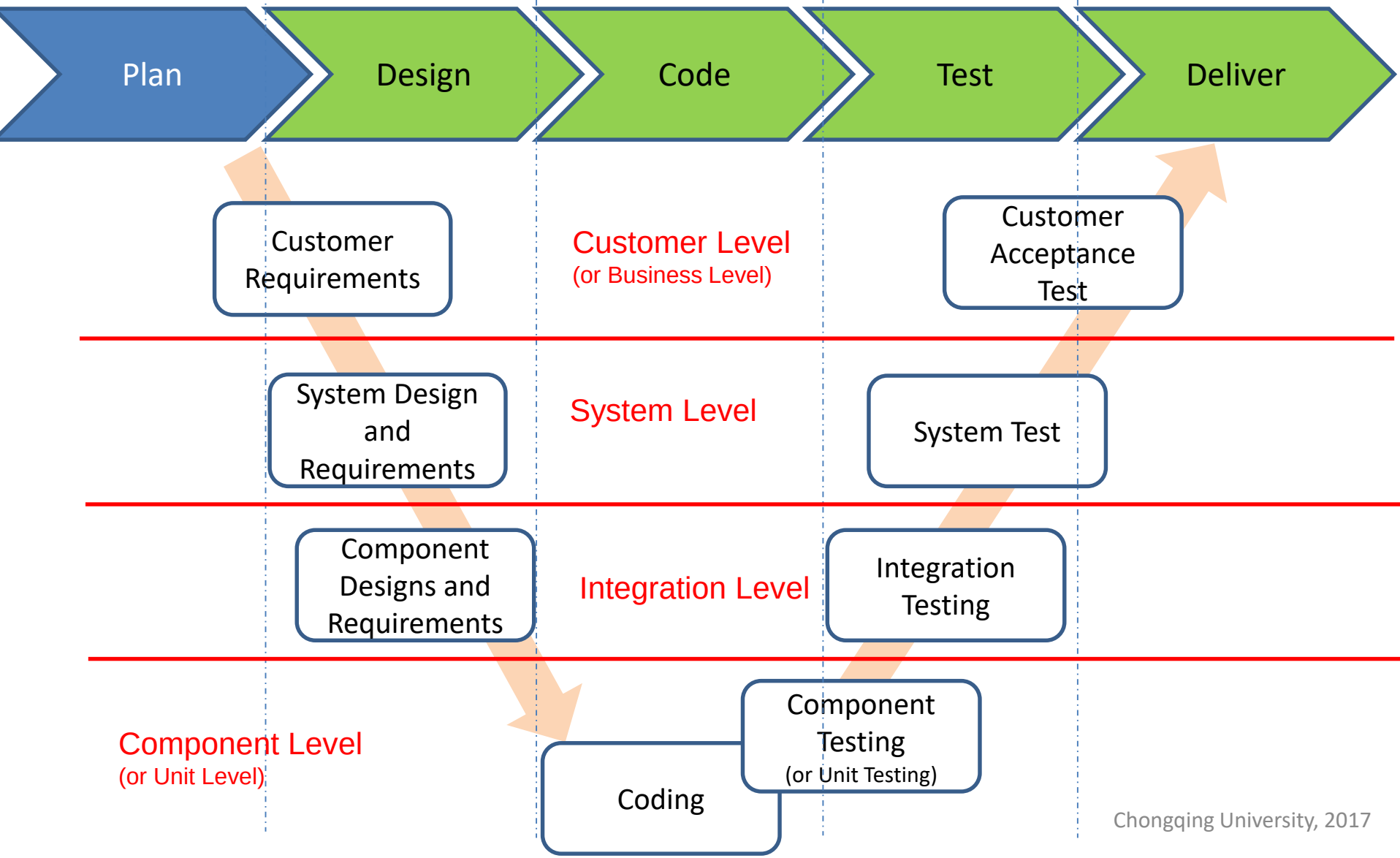
OOPS!!! Found a bug!!

Back to the design phase!!

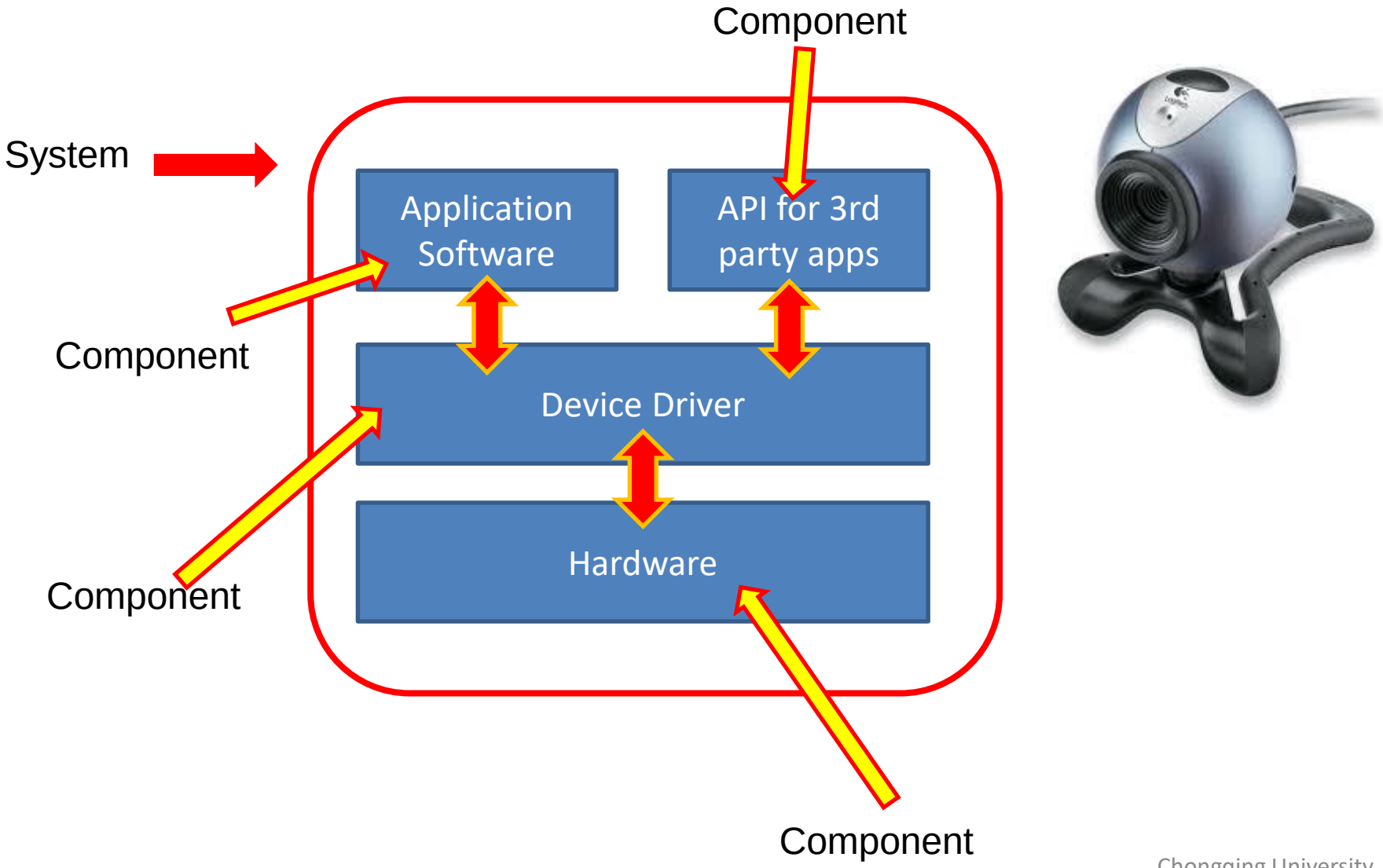
# V Model


Plan
Design
Code
Test
OOPS!!! Found a bug!!
Back
Customer Requirements
Customer Acceptance Test
System Design and Requirements
System Test
OOPS!!! Found a bug!!
Back
Component Designs and Requirements
Integration Testing
Component Testing
(or Unit Testing)
Coding

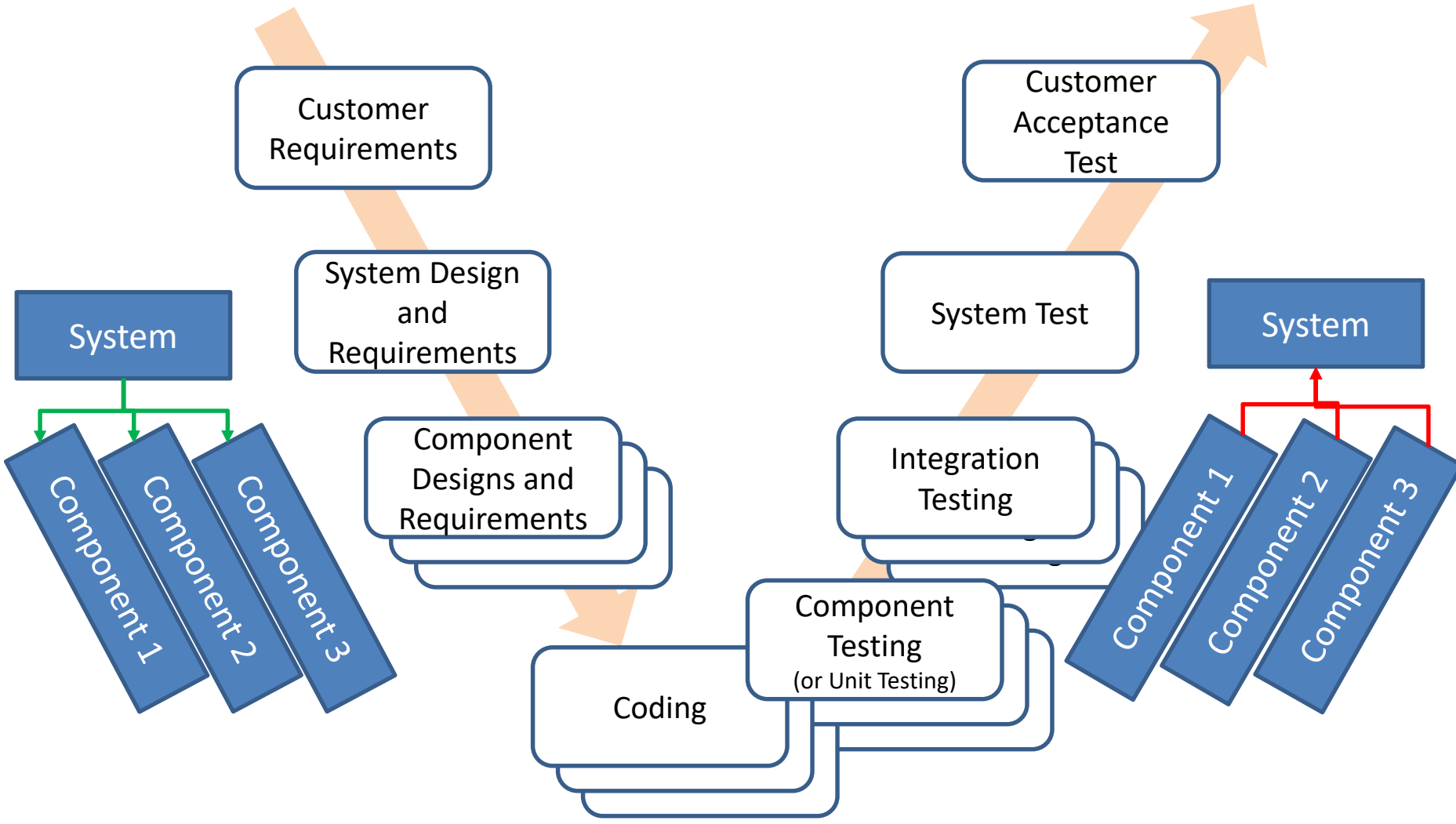
# V Model


Plan
Design
Code
Test
Deliver
Customer Requirements
Customer Level
(or Business Level)
Customer Acceptance Test
System Design and Requirements
System Level
System Test
Component Designs and Requirements
Integration Level
Integration Testing
Component Level
(or Unit Level)
Coding
Component Testing
(or Unit Testing)

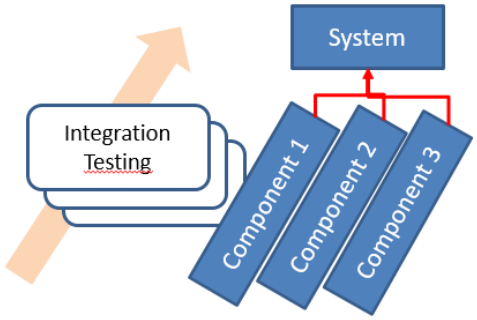
# Example System Design

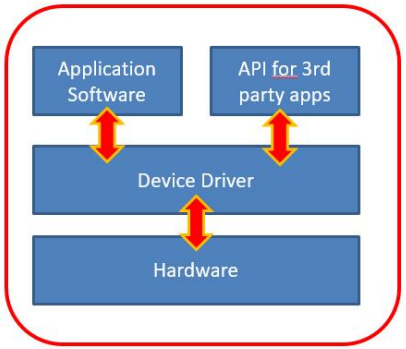


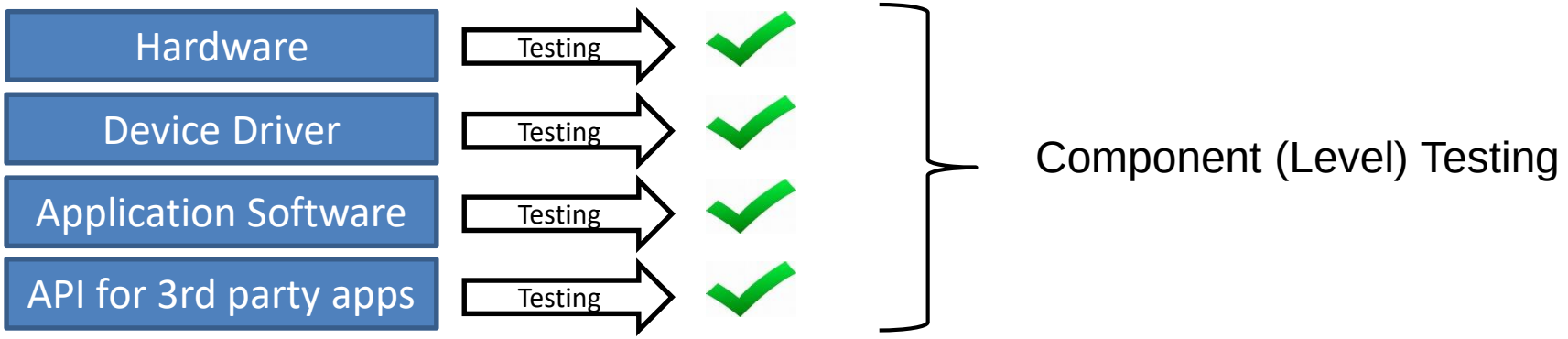
# V Model


Customer Requirements
System Design and Requirements
Component Designs and Requirements
Coding
Component Testing (or Unit Testing)
Integration Testing
System Test
Customer Acceptance Test
System
Component 1
Component 2
Component 3
System
Component 1
Component 2
Component 3

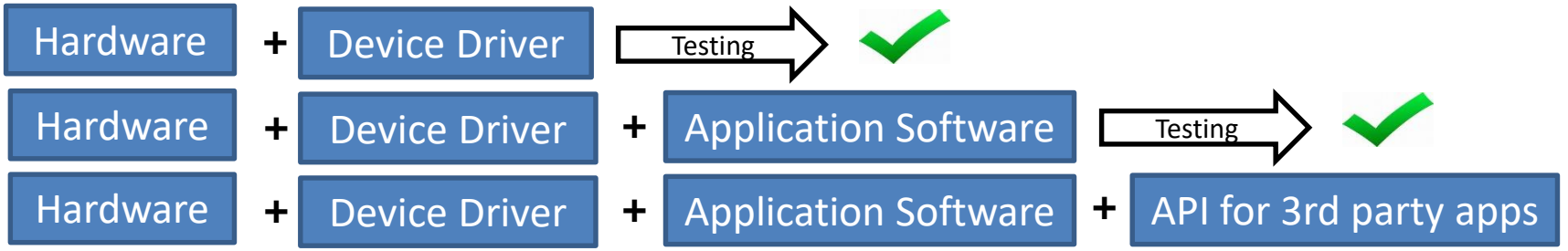
# Integration Testing



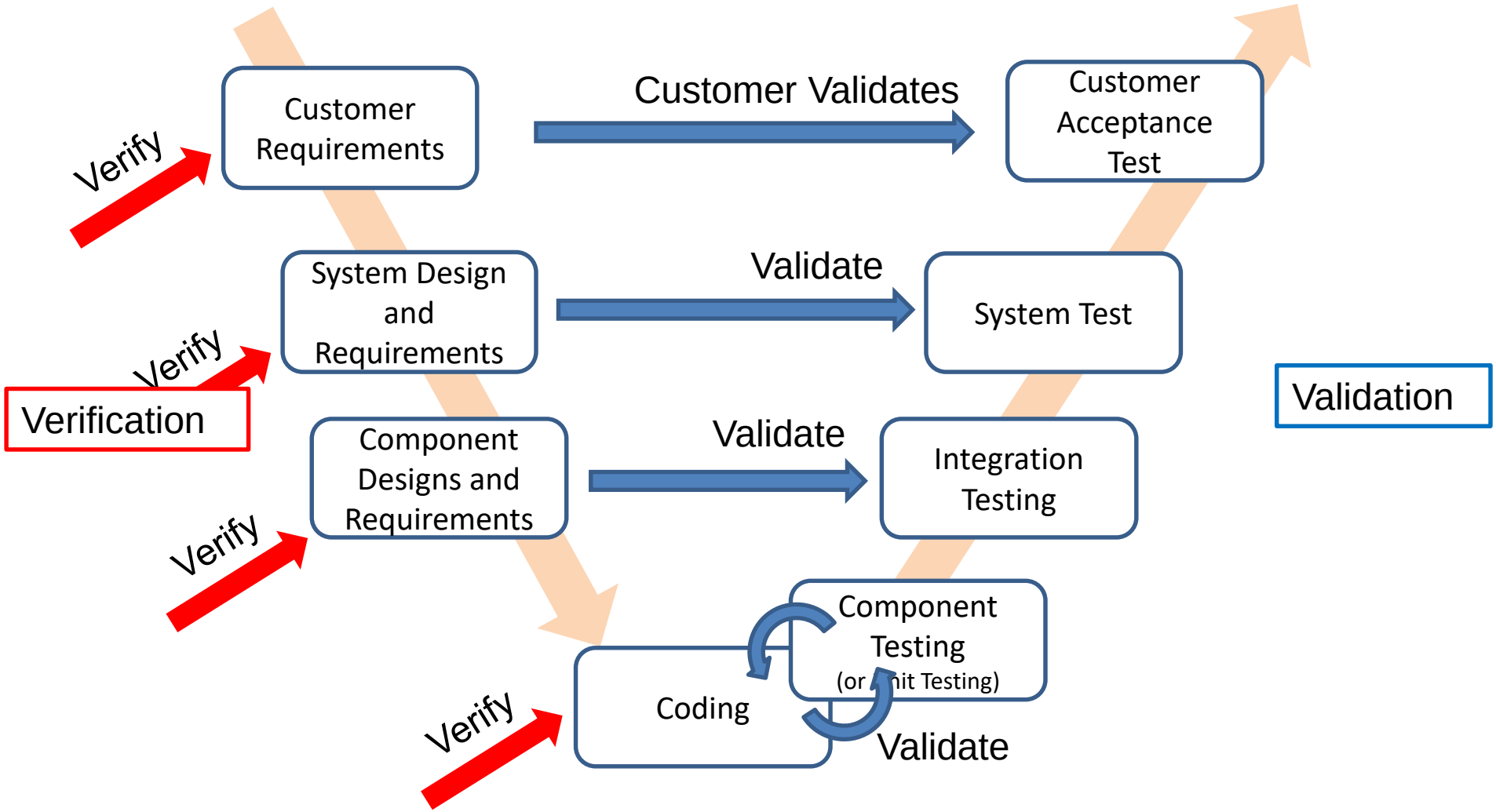





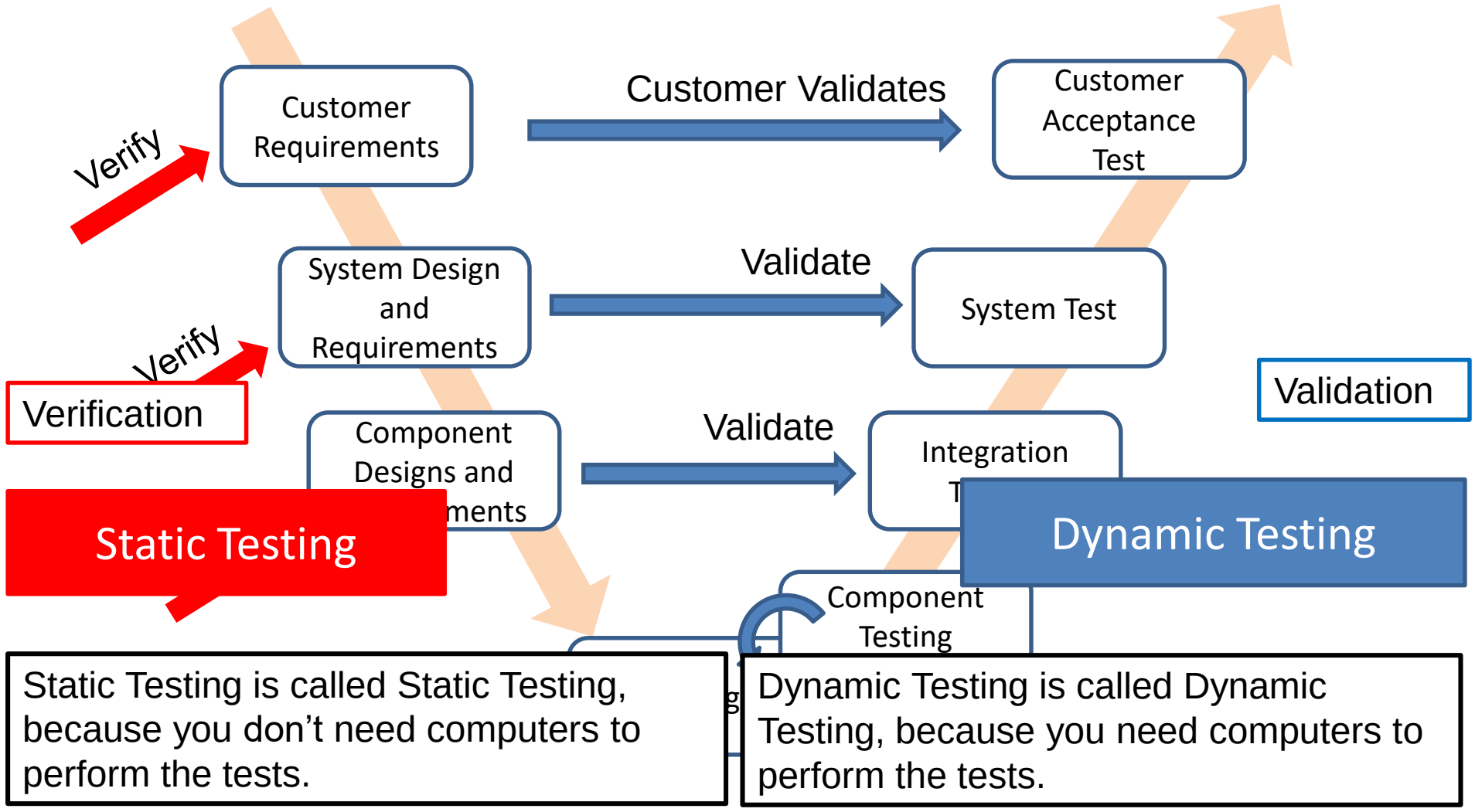

Integration (Level) Testing



# V Model


Customer Requirements
Customer Validates
Customer Acceptance Test
Verify
System Design and Requirements
Validate
System Test
Verify
Verification
Component Designs and Requirements
Validate
Integration Testing
Validation
Verify
Component Testing
(or Unit Testing)
Coding
Verify
Validate

# V Model

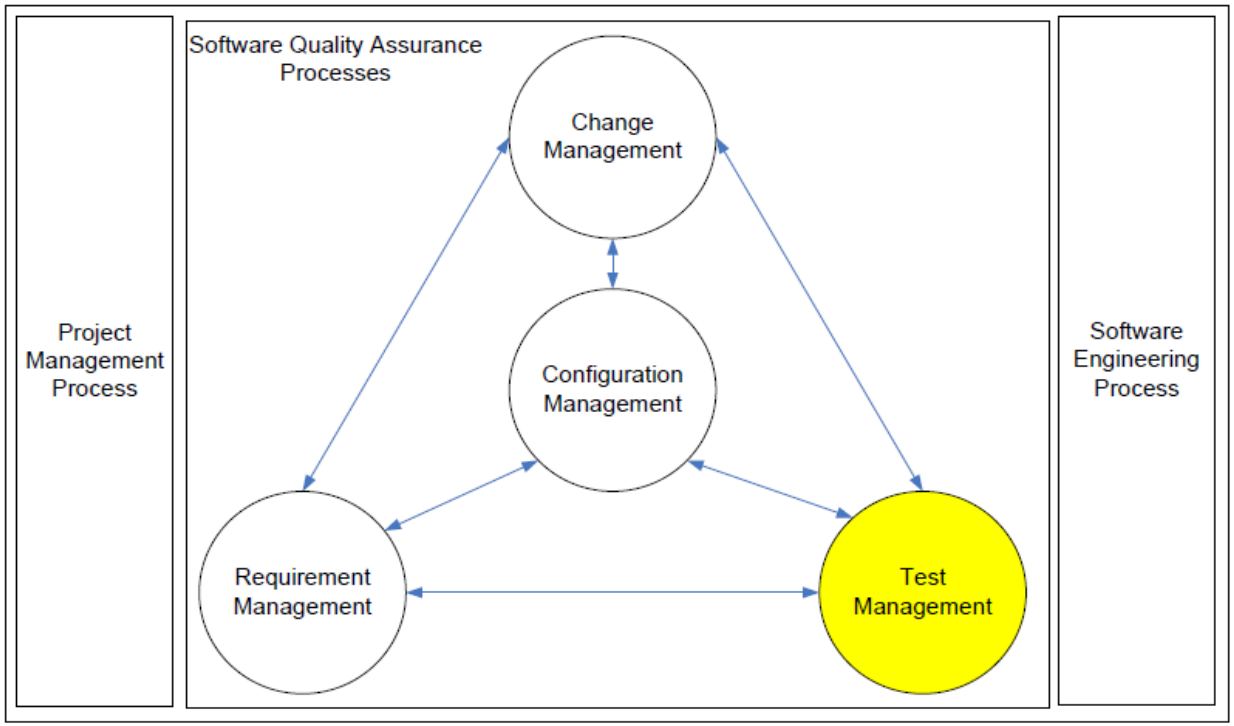



Static Testing is called Static Testing, because you don't need computers to perform the tests.

Dynamic Testing is called Dynamic Testing, because you need computers to perform the tests.

# Test Management Process in Projects

Test Management is only one of the four processes of a project's quality system



# Questions?