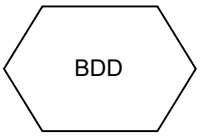
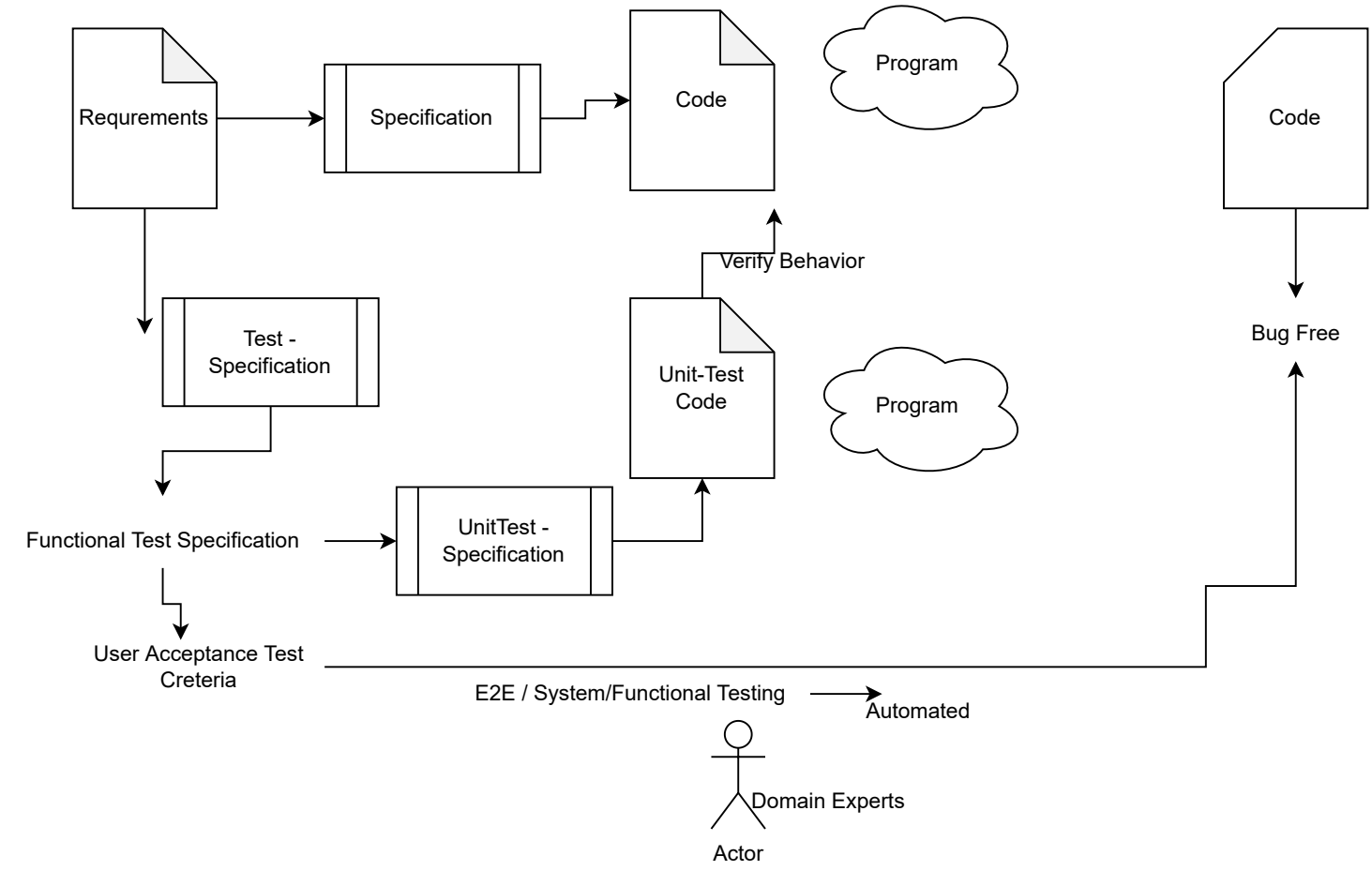
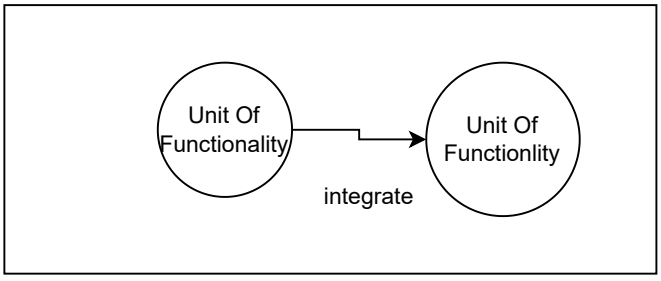
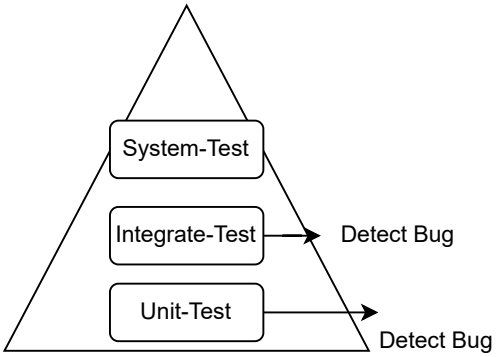
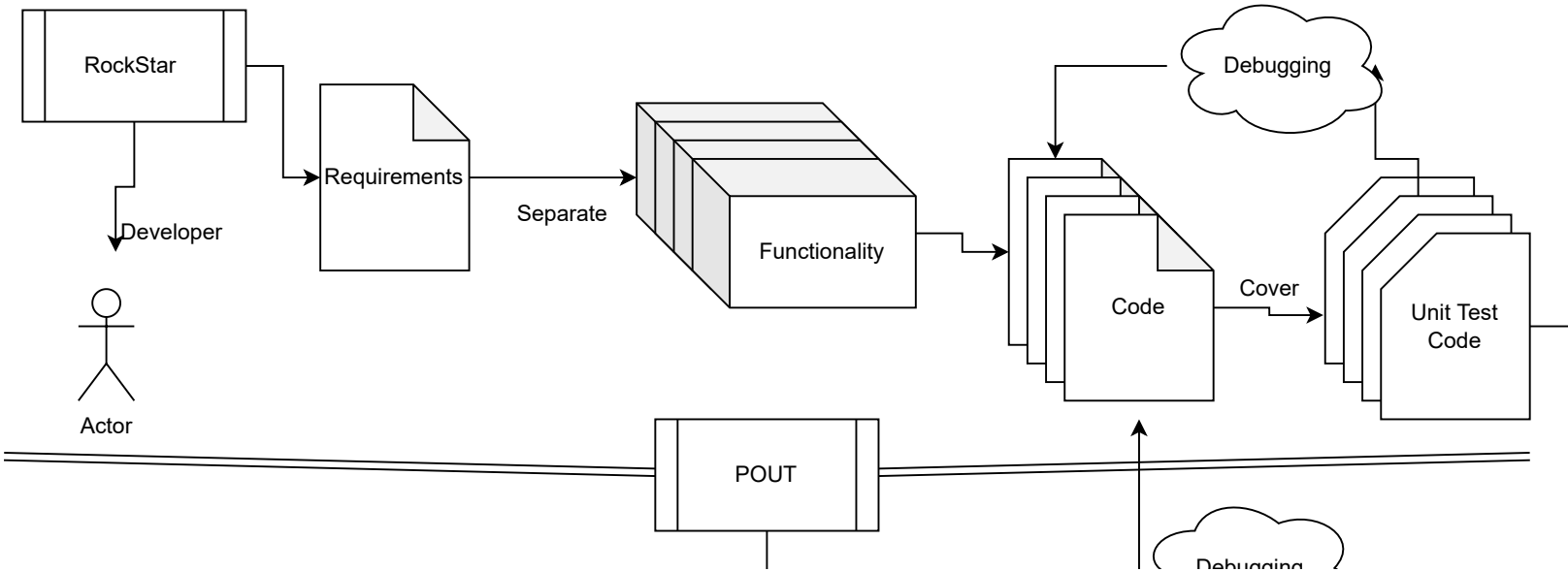

BDD

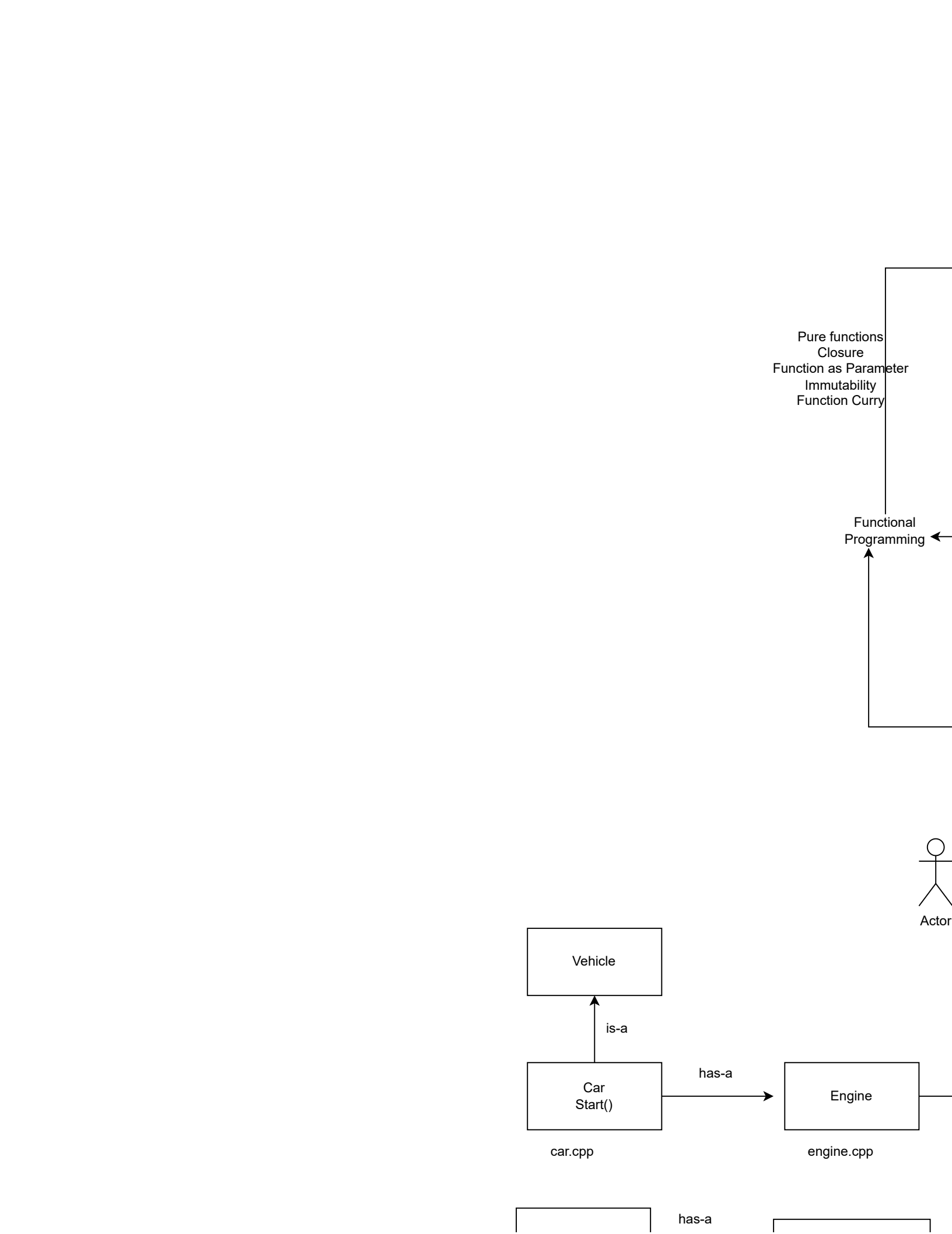

Requrements
Specification
Code
Program
Code
Verify Behavior
Test -
Specification
Unit-Test
Code
Program
Bug Free
Functional Test Specification
UnitTest -
Specification
User Acceptance Test
Creteria
E2E / System/Functional Testing
Automated
Domain Experts
Actor

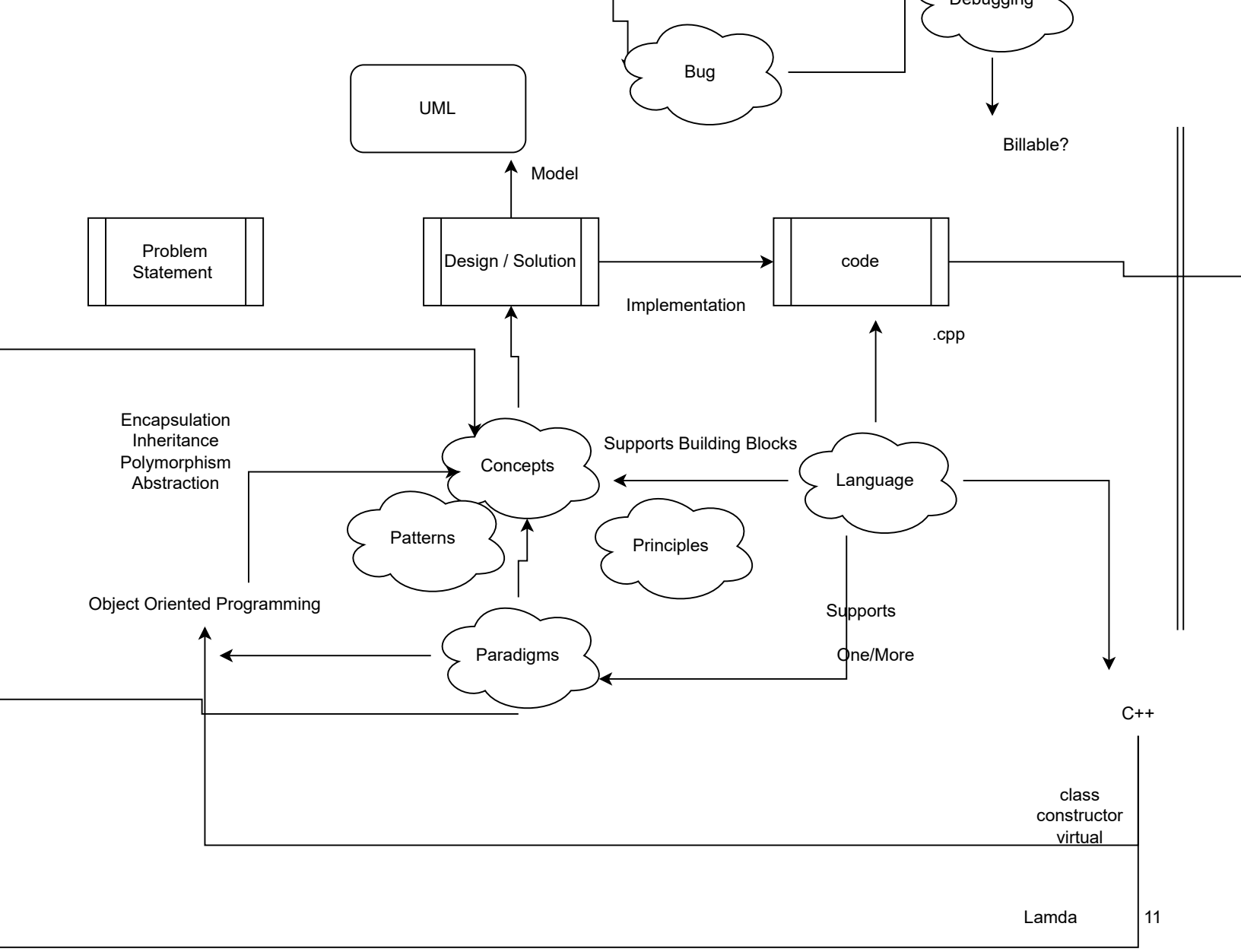

Unit Of
Functionality
integrate
Unit Of
Functionlity

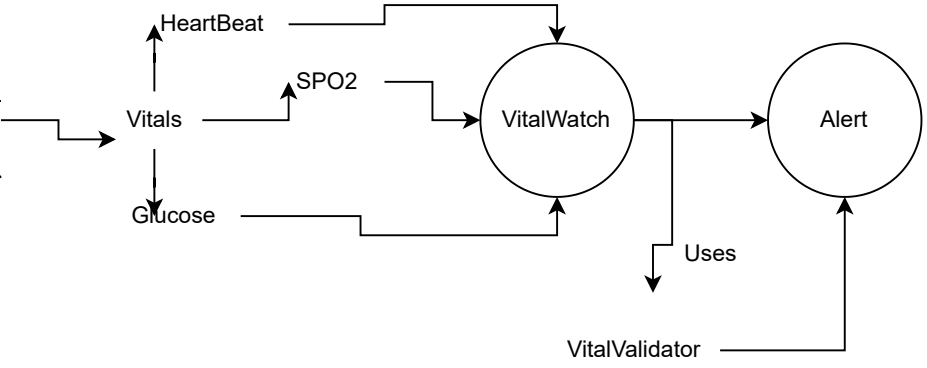
System

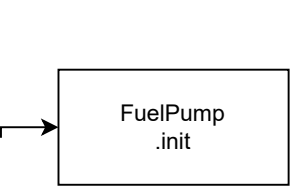

System-Test
Integrate-Test
Detect Bug
Unit-Test
Detect Bug

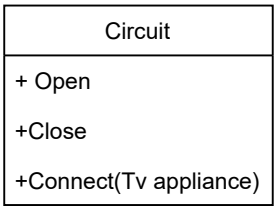

RockStar
Developer
Requirements
Separate
Functionality
Debugging
Code
Cover
Unit Test
Code
Actor
POUT
Debugging


Pure functions
Closure
Function as Parameter
Immutability
Function Curry
Functional
Programming
Actor
Vehicle
is-a
Car
Start()
has-a
Engine
car.cpp
engine.cpp
has-a


Debugging
Bug
UML
Billable?
Model
Problem Statement
Design / Solution
code
Implementation
.cpp
Encapsulation
Inheritance
Polymorphism
Abstraction
Concepts
Supports Building Blocks
Language
Patterns
Principles
Object Oriented Programming
Supports
One/More
Paradigms
C++
class
constructor
virtual
Lamda
11

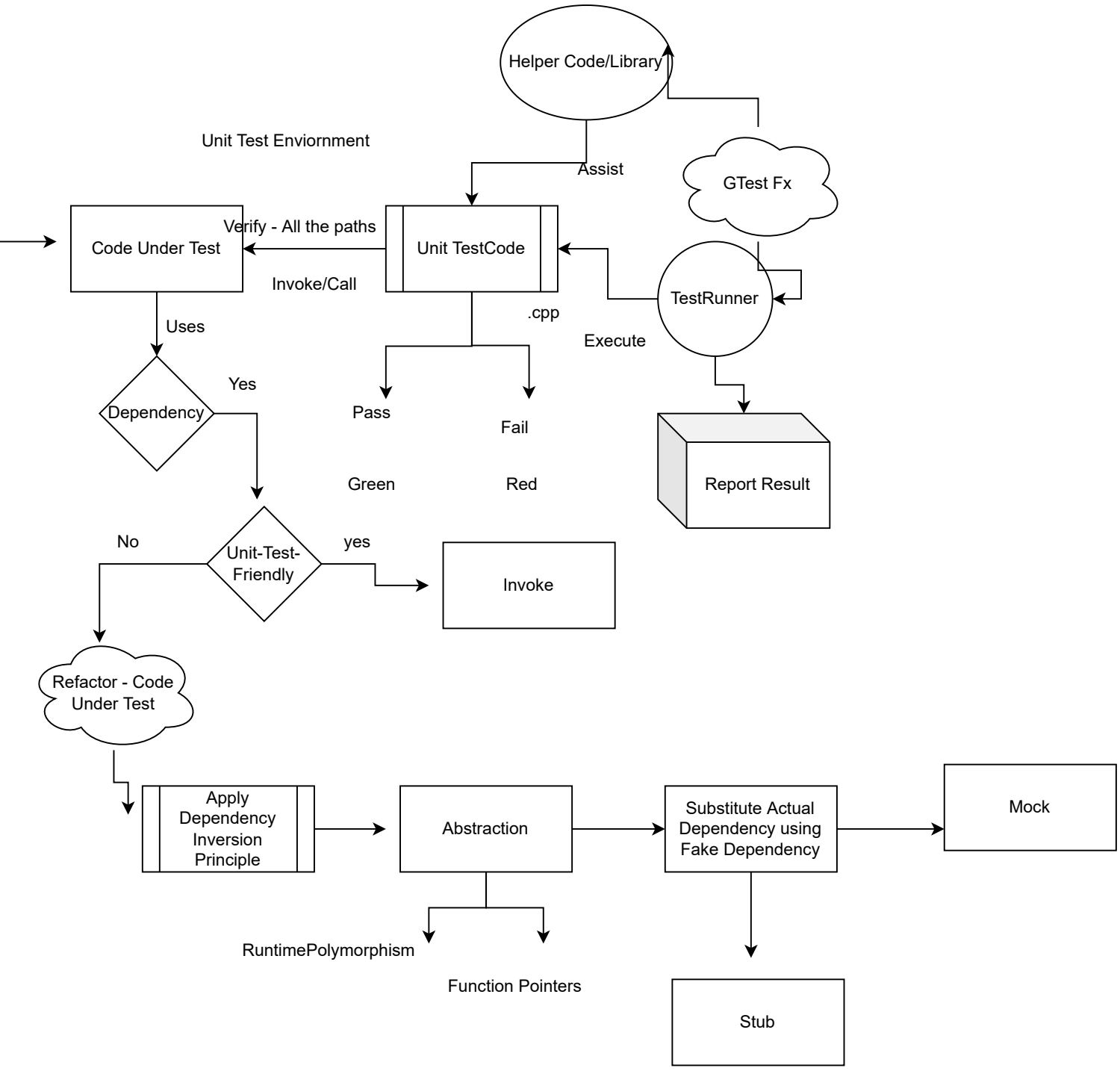

HeartBeat
SPO2
Vitals
VitalWatch
Alert
Glucose
Uses
VitalValidator

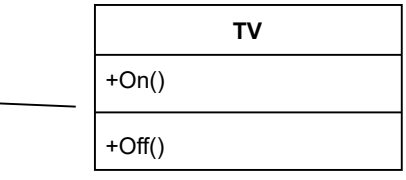

FuelPump
.init


Circuit
+ Open
+Close
+Connect(Tv appliance)

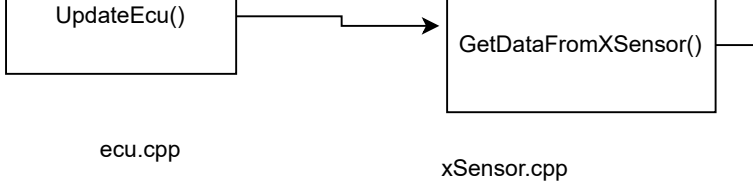
Uses/has-a

Circuit


Helper Code/Library
Unit Test Enviornment
Assist
GTest Fx
Code Under Test
Verify - All the paths
Unit TestCode
Invoke/Call
.cpp
TestRunner
Uses
Execute
Dependency
Yes
Pass
Fail
Report Result
Green
Red
No
Unit-Test-Friendly
yes
Invoke
Refactor - Code Under Test
Apply Dependency Inversion Principle
Abstraction
Substitute Actual Dependency using Fake Dependency
Mock
RuntimePolymorphism
Function Pointers
Stub

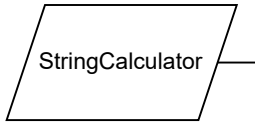

TV
+On()
+Off()

Reviewers

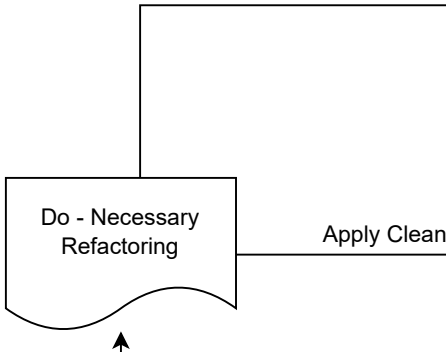


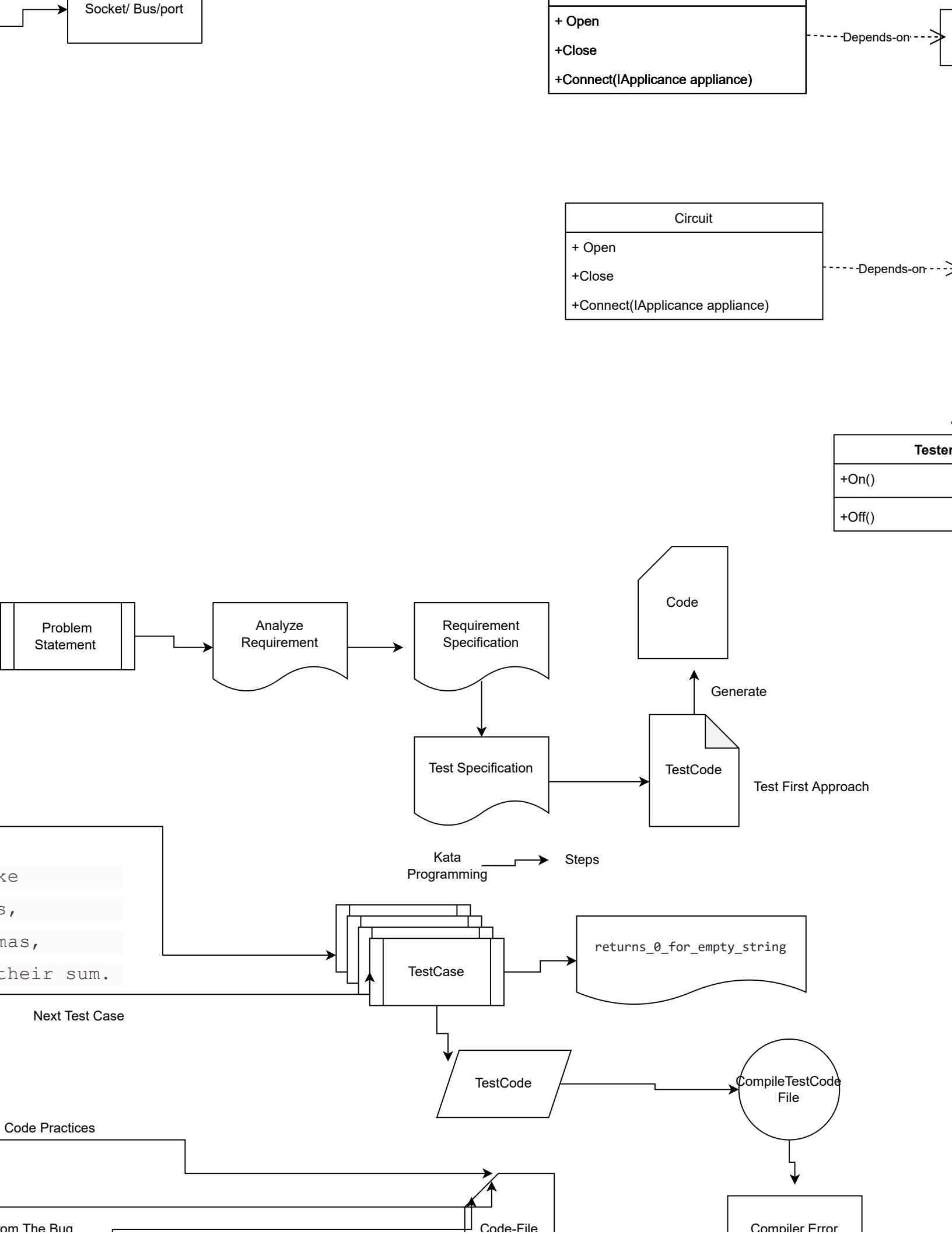
ecu.cpp

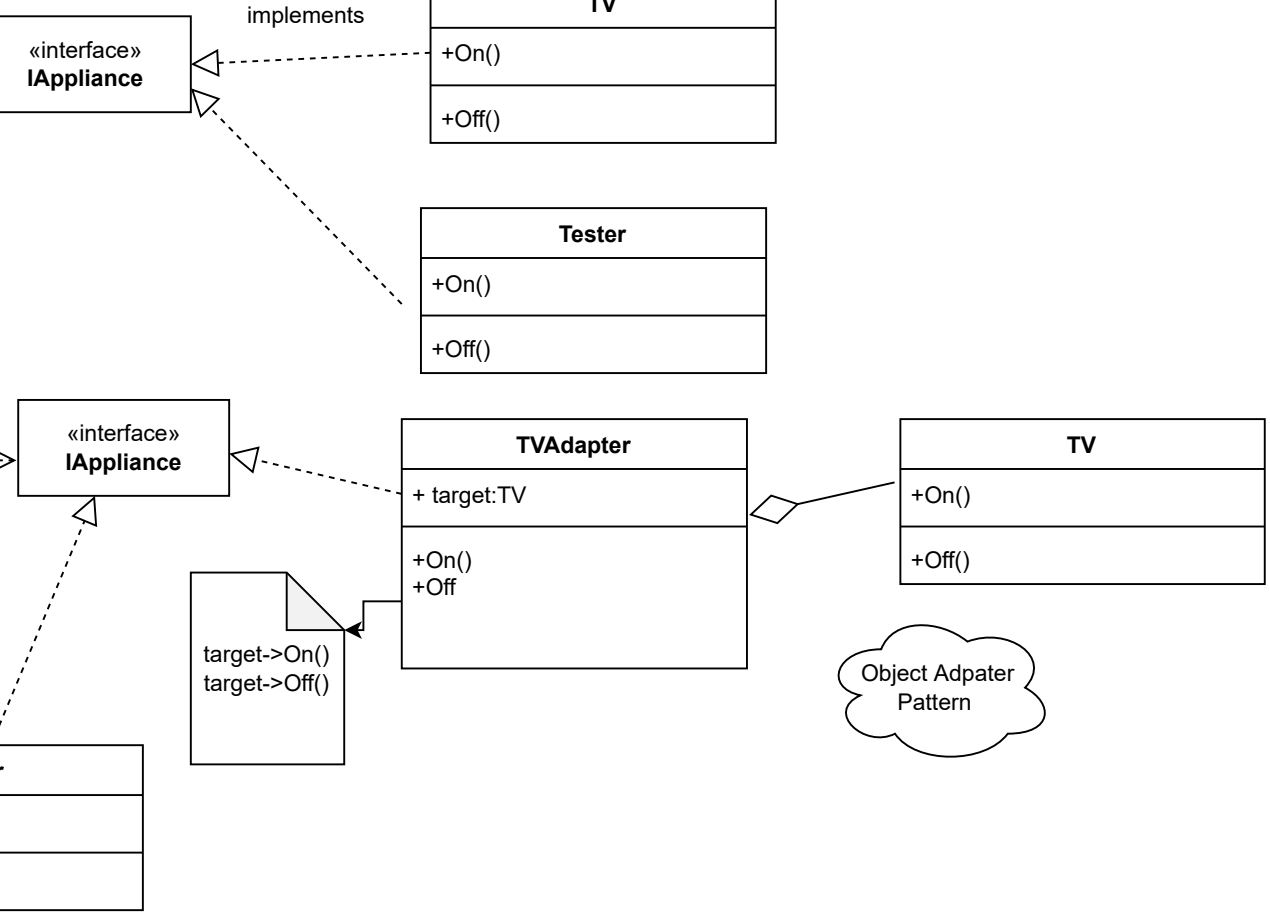
xSensor.cpp

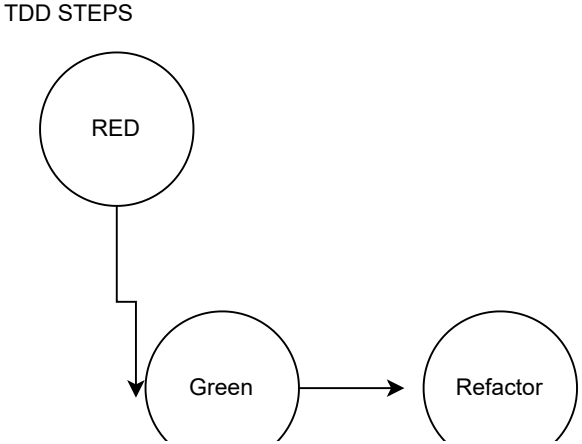


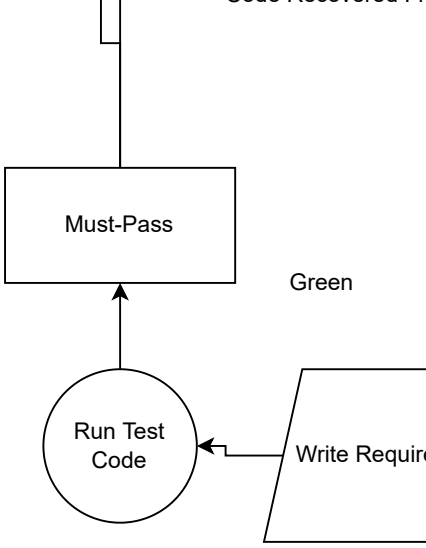

```
The method can tak
 up to two numbers
 separated by comm
 and will return t
```

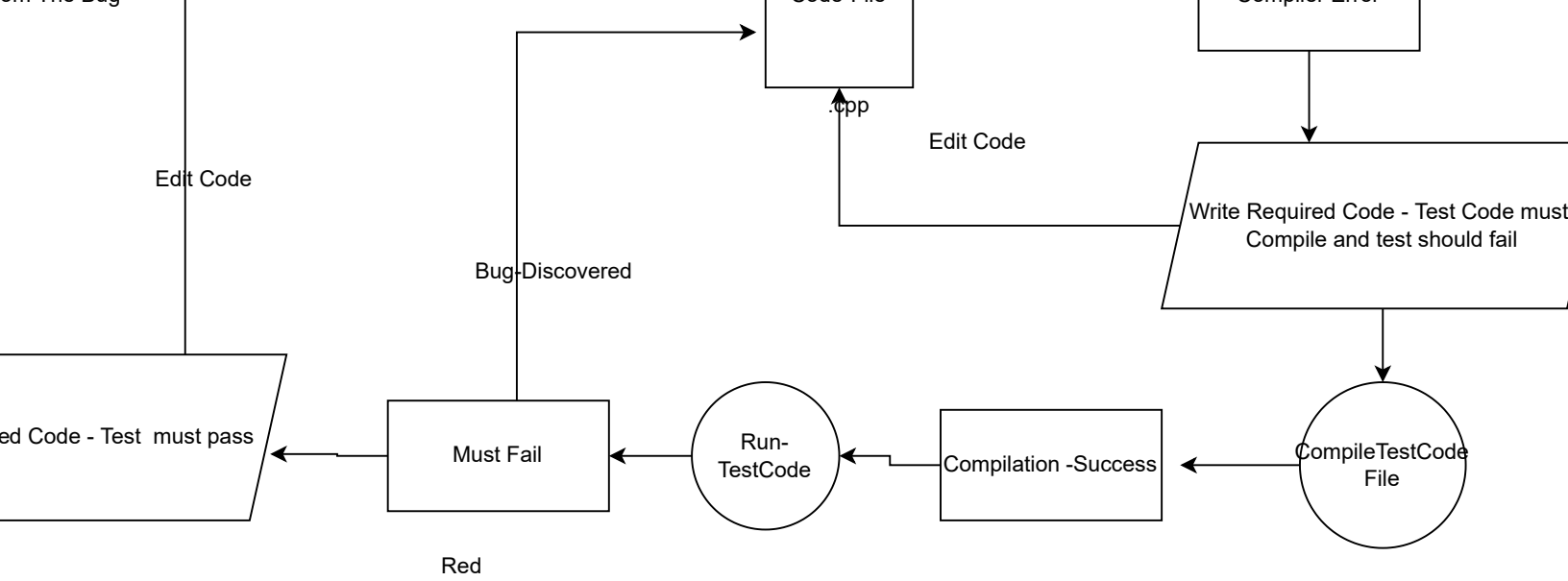
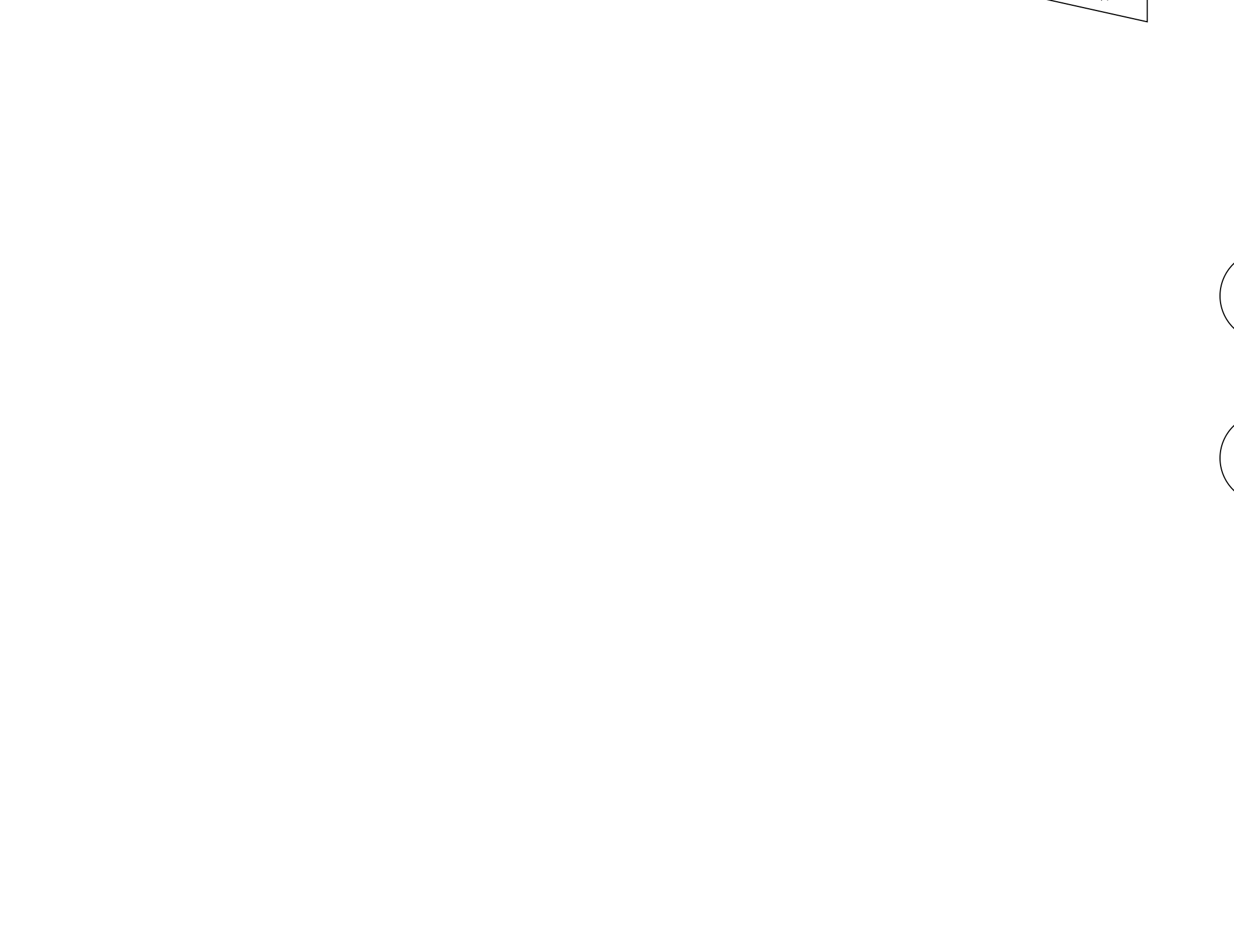



Socket/ Bus/port
+ Open
+Close
+Connect(IApplicance appliance)
Depends-on
Circuit
+ Open
+Close
+Connect(IApplicance appliance)
Depends-on
Tester
+On()
+Off()
Problem Statement
Analyze Requirement
Requirement Specification
Code
Generate
Test Specification
TestCode
Test First Approach
Kata Programming
Steps
ke
s,
mas,
their sum.
TestCase
returns_0_for_empty_string
Next Test Case
TestCode
CompileTestCode File
Code Practices
Code-File
Compiler Error


implements
«interface»
IAppliance
TV
+On()
+Off()
Tester
+On()
+Off()
«interface»
IAppliance
TVAdapter
+ target:TV
+On()
+Off
TV
+On()
+Off()
target->On()
target->Off()
Object Adpater
Pattern


TDD STEPS
RED
Green
Refactor


Must-Pass
Green
Run Test
Code
Write Requir


.cpp
Edit Code
Write Required Code - Test Code must
Compile and test should fail
Bug-Discovered
Edit Code
ed Code - Test must pass
Must Fail
Run-
TestCode
Compilation -Success
CompileTestCode
File
Red