Java GUI Programming AWT/SWING - Introduction

DESIGN FRAMEWORKS (AWT, SWT, SWING, JAVAFX, QT JAMBI)

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What is a GUI Framework?

In computer programming, a **software framework** is an abstraction in which software providing generic functionality can be selectively changed by additional user-written code, thus providing application-specific software. A **software framework** is a universal, reusable software environment that provides particular functionality as part of a larger software platform to facilitate development of software applications, products and solutions.

Software frameworks may include support programs, compilers, code libraries, tool sets, and application programming interfaces (**API**s) that bring together all the different components to enable development of a project or system.
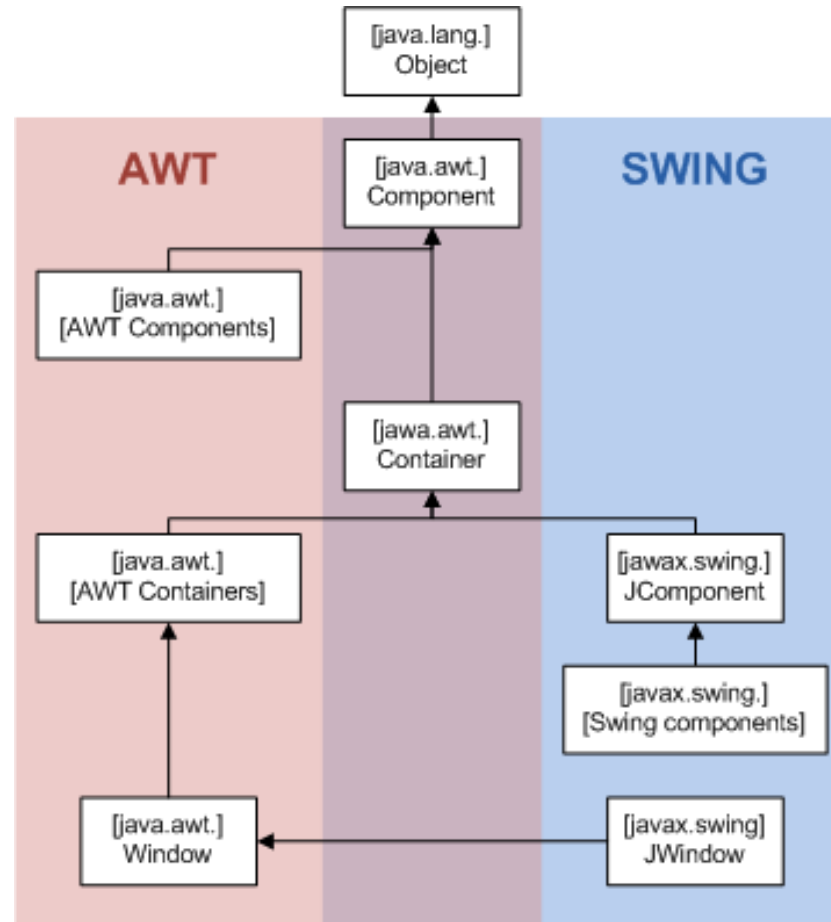
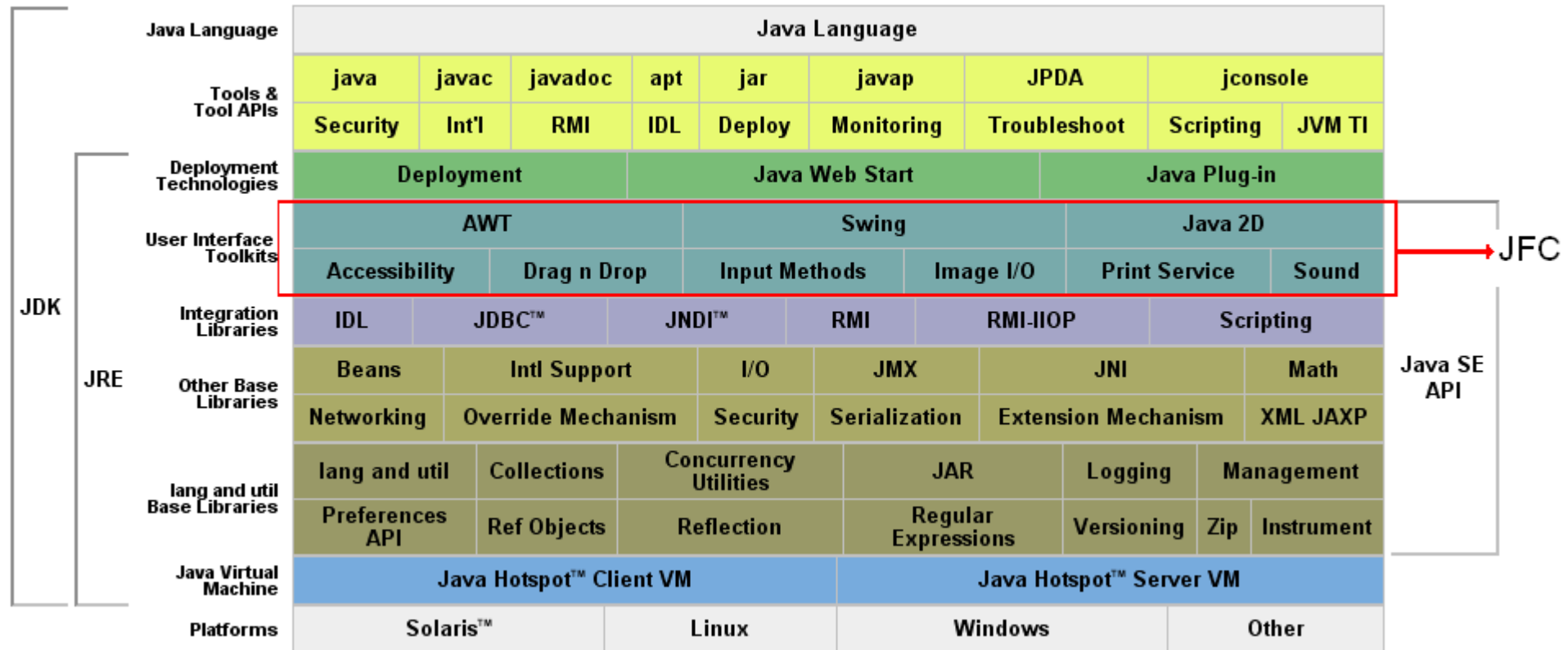# Graphics User Interfaces
Java Foundation Class (JFC)
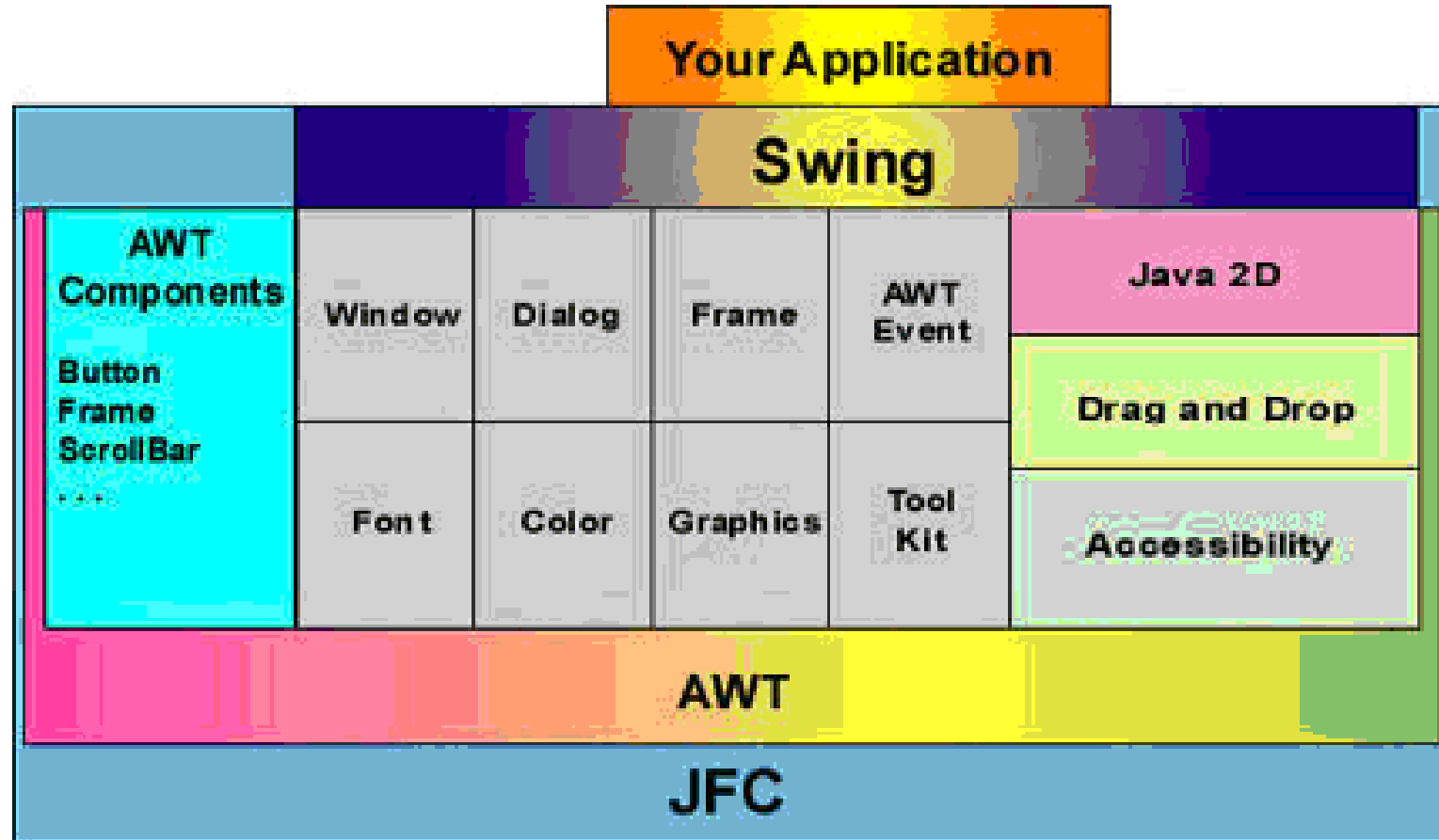
AWT and Swing

Java SE 6 and JFC

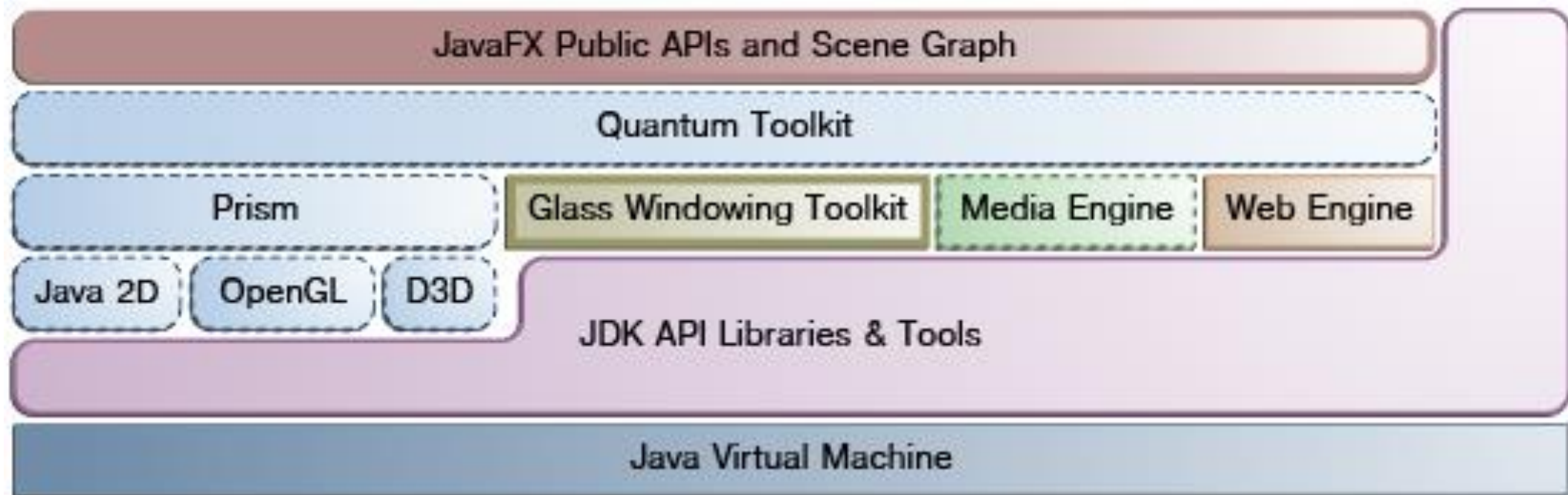Java™ SE 6 Platform at a Glance
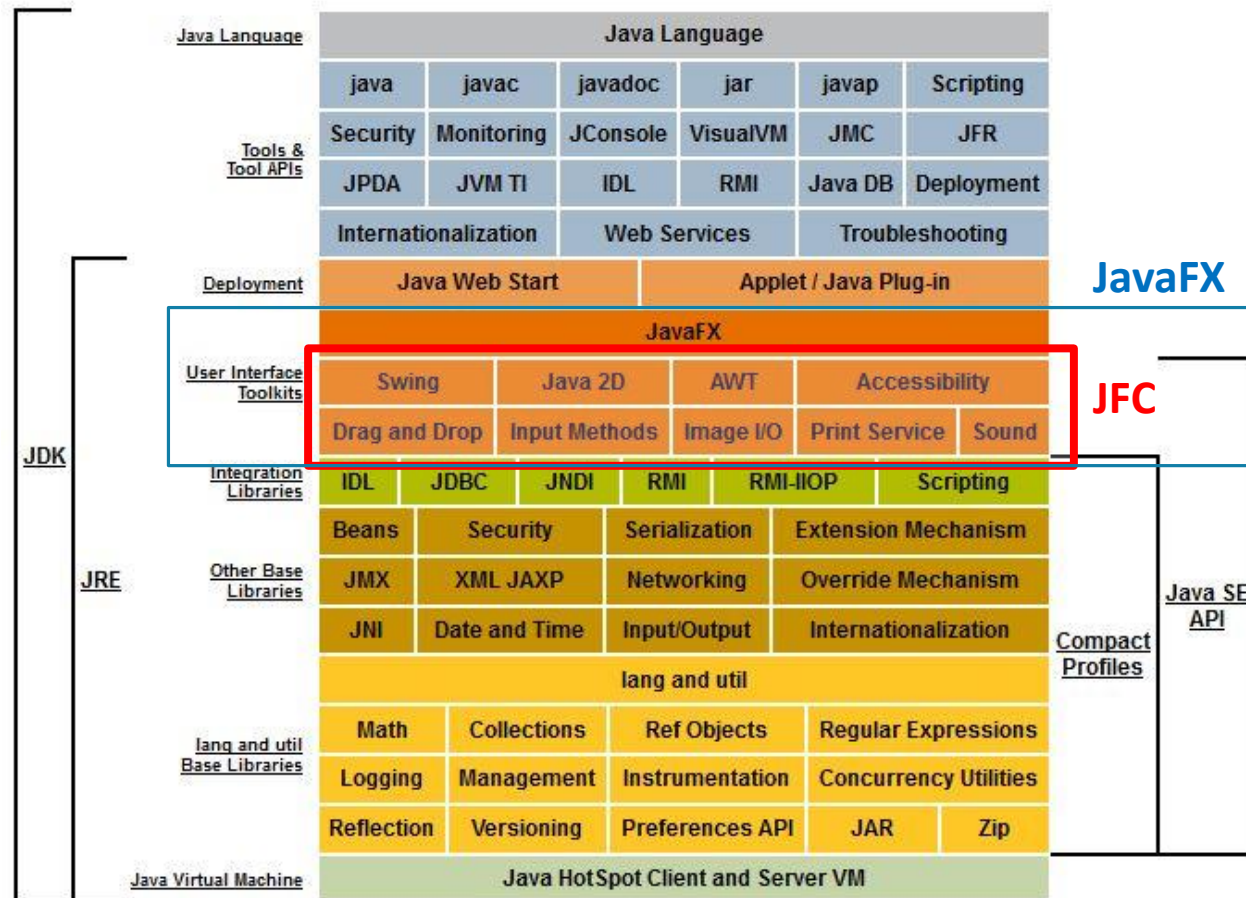
Graphics User Interfaces
JavaFX

JavaFX Platform

Java SE 8, JFC and JavaFX

Modules in a Design Framework
Qt Jambi as Example

Core	GUI

Multithreading

2D Graphics Canvas

OpenGL®

WebKit

Scripting

Multimedia

Networking

XML

Database

Unit Testing
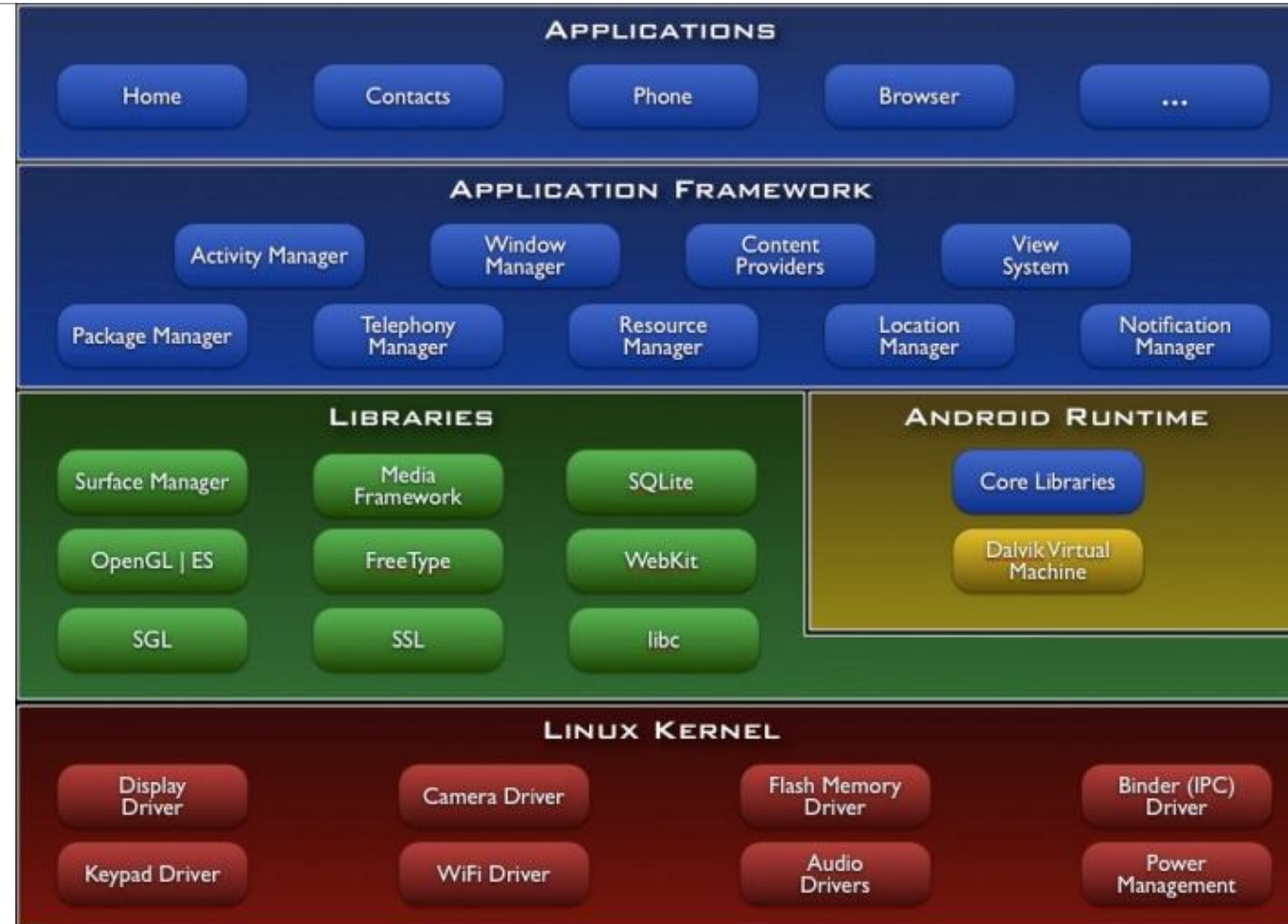
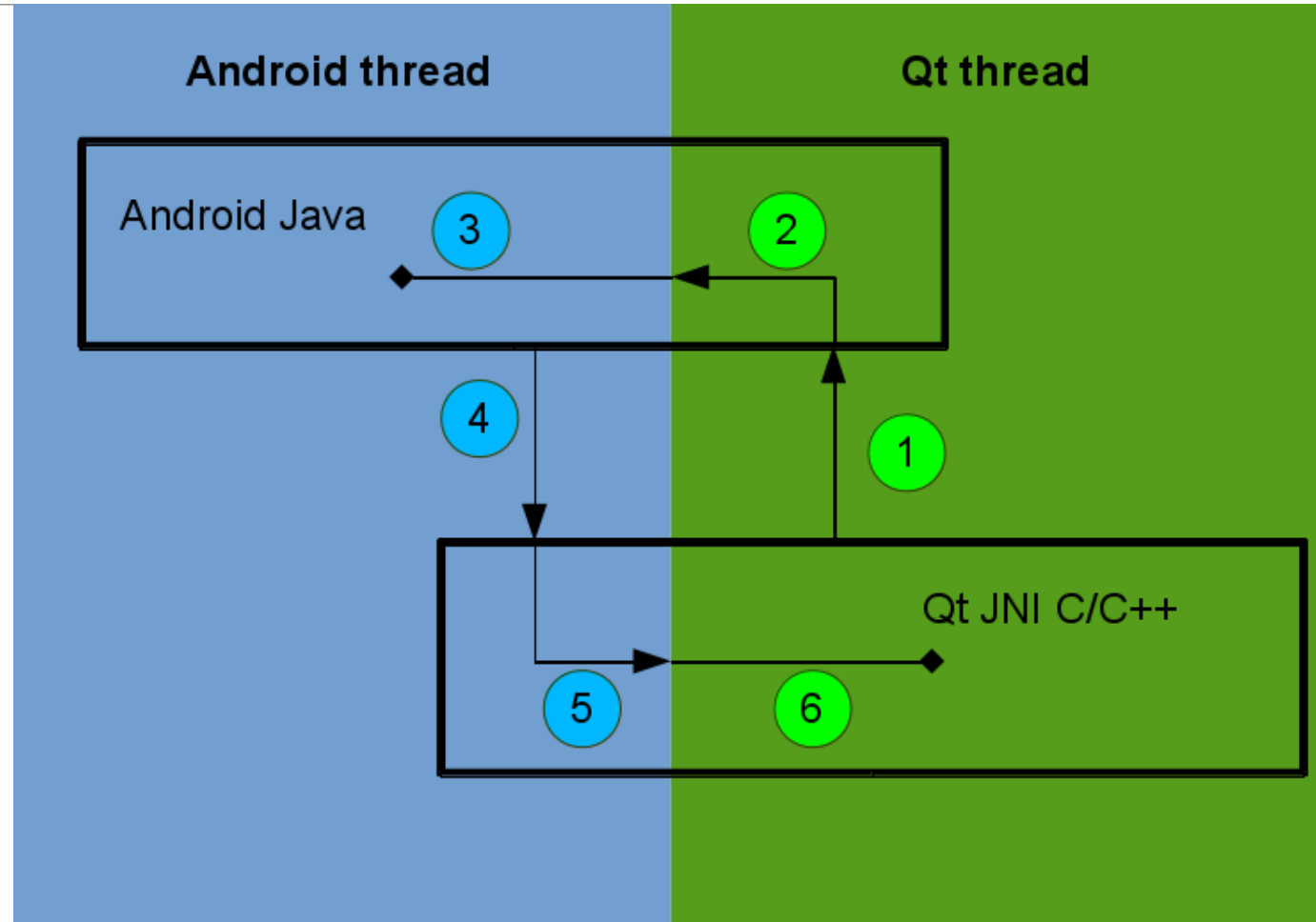Declarative
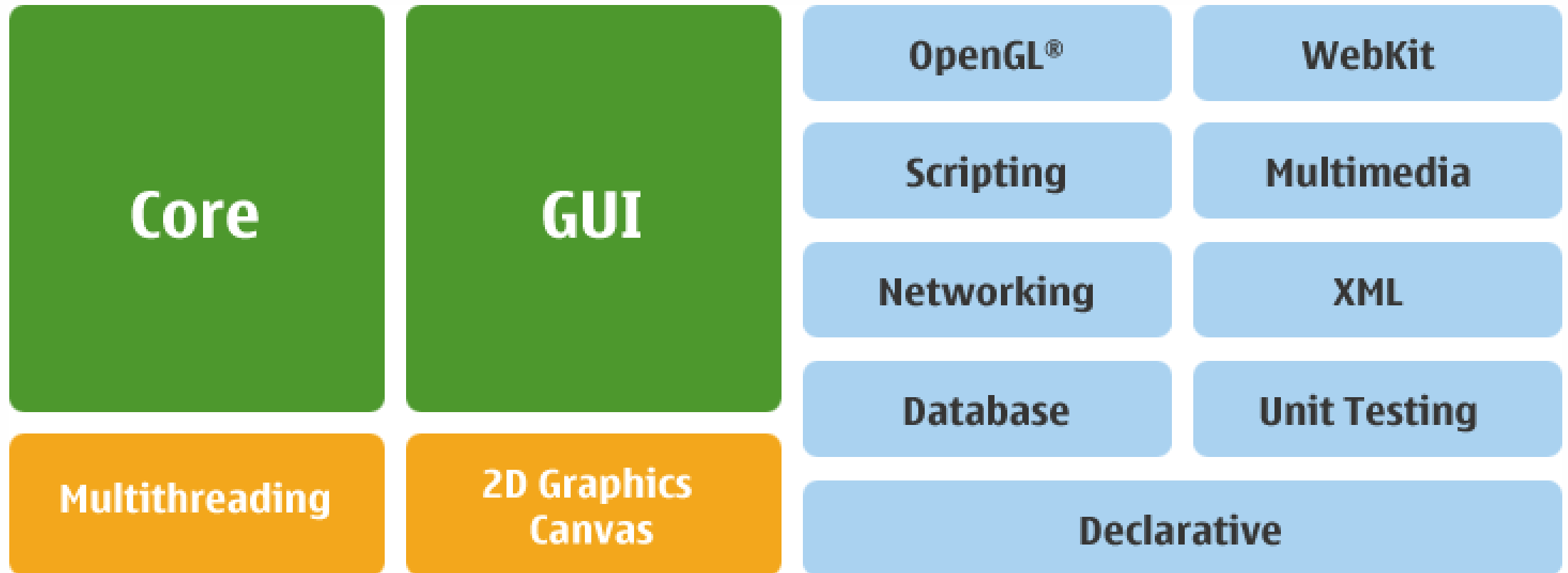
Android API Framework
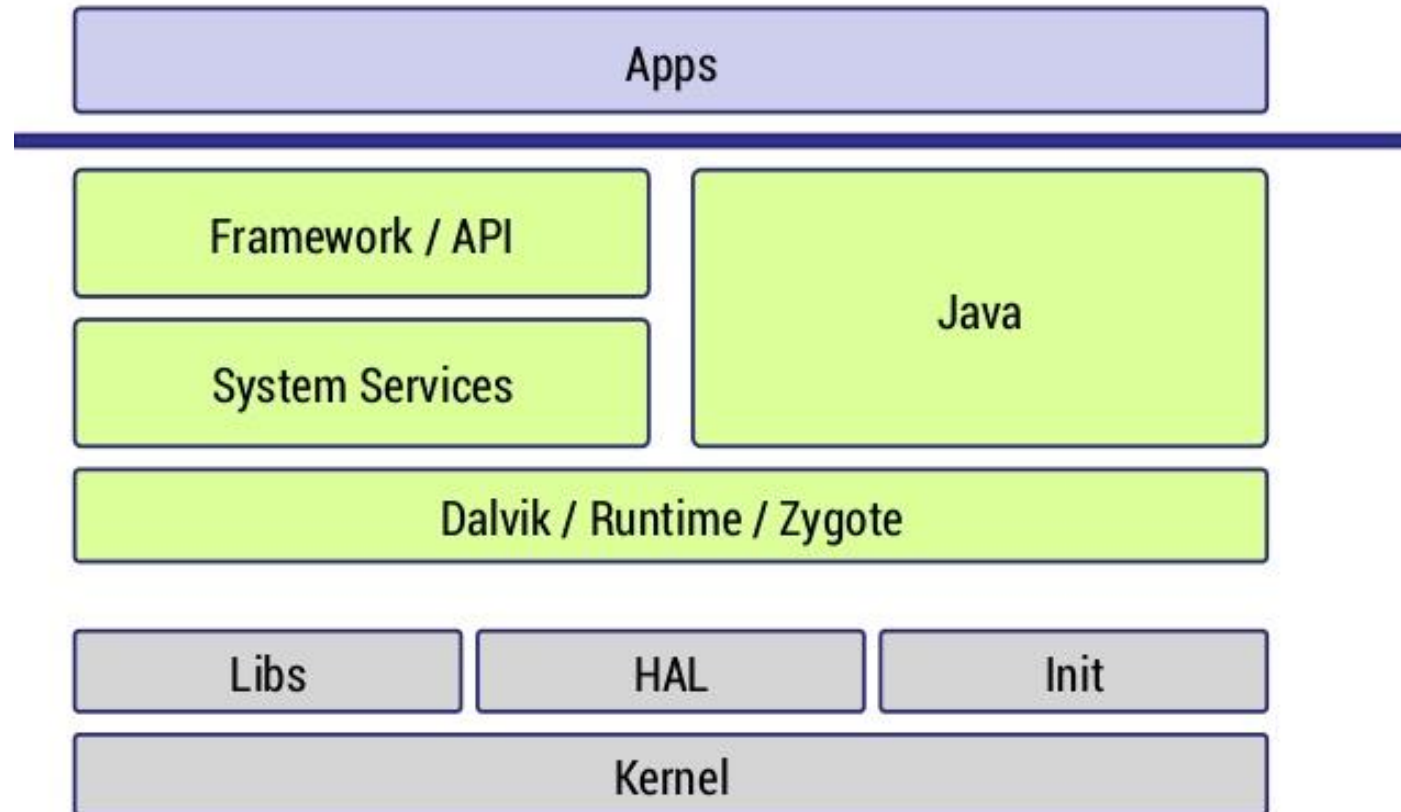
Android API Framework

Another View

Android and Qt Jambi

Why Study Java Foundation Class?
It is the foundation for GUI Programming.

- There are many existing projects.
- Knowledge in JFC (AWT+Swing) can be used in all different GUI frameworks.
- Compatible with JavaFX and Android Studio.
- More educational resources.
- Foundation to study Networking, Database, Unit Testing, Multimedia, and Web Servers

Java Courses
eC Learning Channel's Courses