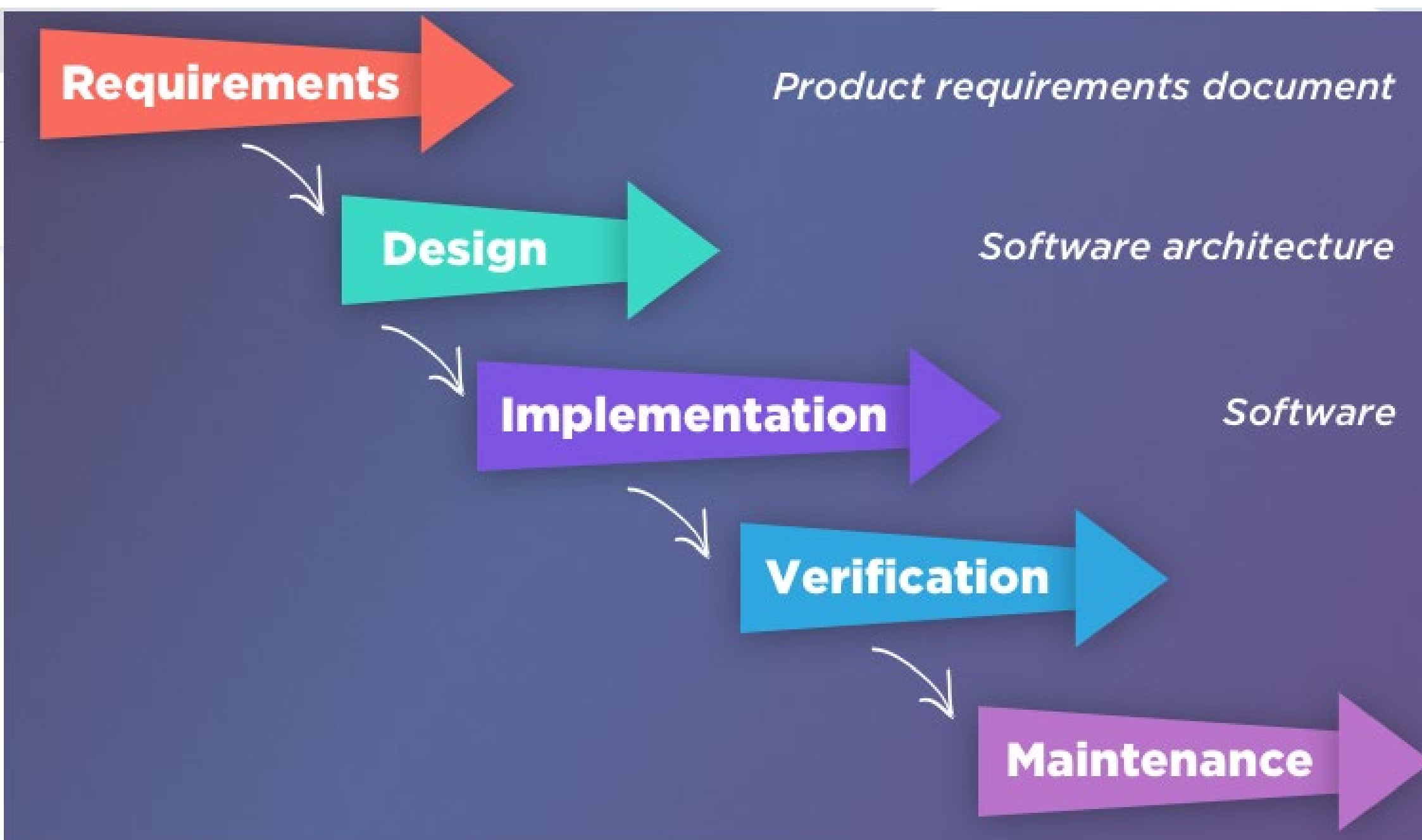# SOFTWARE DEVELOPMENT

Ashwini Kale

Functional lead for a major IT services provider

Software Development and Life Cycle

- Evolution of Software Development Process

- AWS (Amazon Web Services) Overview

- Mobile Development Overview

- Quality and Agile Methodology

Software Development

- Software Development has evolved last 20 years with lot of web based plug ins readily available.

- Mobile App development is another area, that is growing exponentially.

Evolution of Software Development Process

Software Development

- Two decades back developers used tools like C, C++ or Visual Studio for software development.

- Today there are various readily available API that can be used for software development.

- AGILE methodology is a practice that promotes **continuous iteration** of development and testing throughout the software development lifecycle of the project.

- In the Agile model, both development and testing activities are concurrent, unlike the Waterfall model.

2000
Software Applications

Operating System dependent software applications

Development Tools: Visual Studio

Database: MS Access FoxPro

OS: Windows, Linux

2020
Software Systems

• Web based software applications

• Development Tools: Web API, Cloud Services

• Database: Cloud

• Browser based System, No Single OS

Products Available

1

Amazon Web Services

Whether you're looking for compute power, database storage, content delivery, or other functionality, AWS has the services to help you build sophisticated applications with increased flexibility, scalability and reliability.

2

Java Full Stack Development

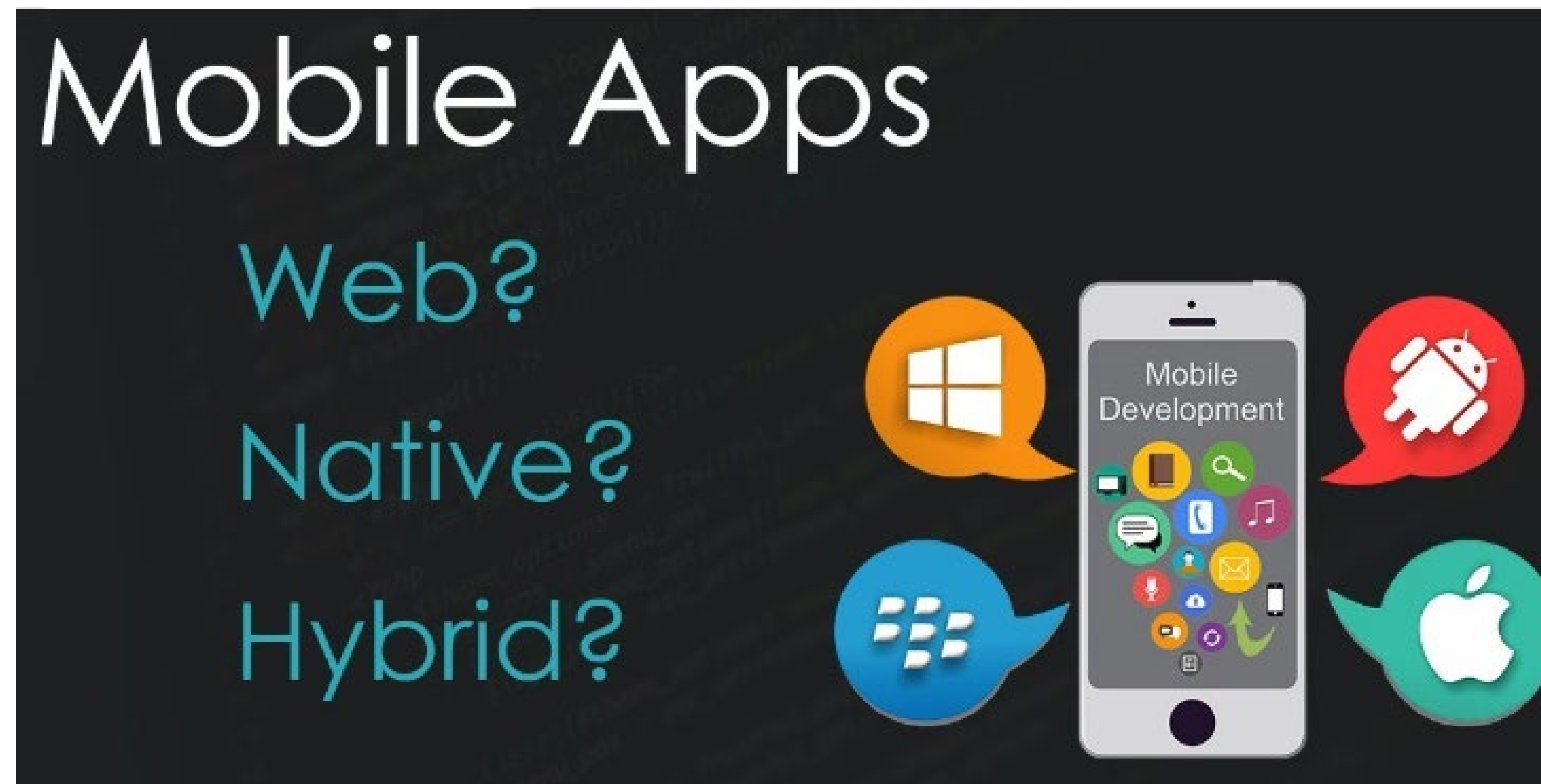A full stack web developer is a person who can develop both **client** and **server** software.

3

Microsoft Azure

Microsoft Azure architecture runs on a massive collection of servers and networking hardware, which, in turn, hosts a complex collection of **applications** that control the operation and configuration of the software and virtualized hardware on these servers. This complex orchestration is what makes Azure so powerful.

Mobile App Development

This is a area that is growing at high speed.

Web Apps

- Use apps from browsers like Chrome, Safari

- A **web app** works via a **web** browser on the smartphone but requires either a cell signal or wi-fi to function.

Native Apps

- Install the apps using play store and use on the mobile device
- A **native mobile app** is one that is installed directly on the smartphone and can work, in most cases, with no internet connectivity depending on the nature of the **app**.

Android App Development

1

Android App Development Kit

The **Android** Software **Development Kit** (**SDK**) is a crucial part of **Android development** for beginners to come to grips with. ... It consists of tools like the virtual device manager (emulator) and ADB bridge, as well as a library of additional code for making Java programs work with the **Android** platform.

2

Android Flash Station

Flashing a device. You can **flash** an entire **Android** system in a single command; doing so verifies that the system being flashed is compatible with your device.
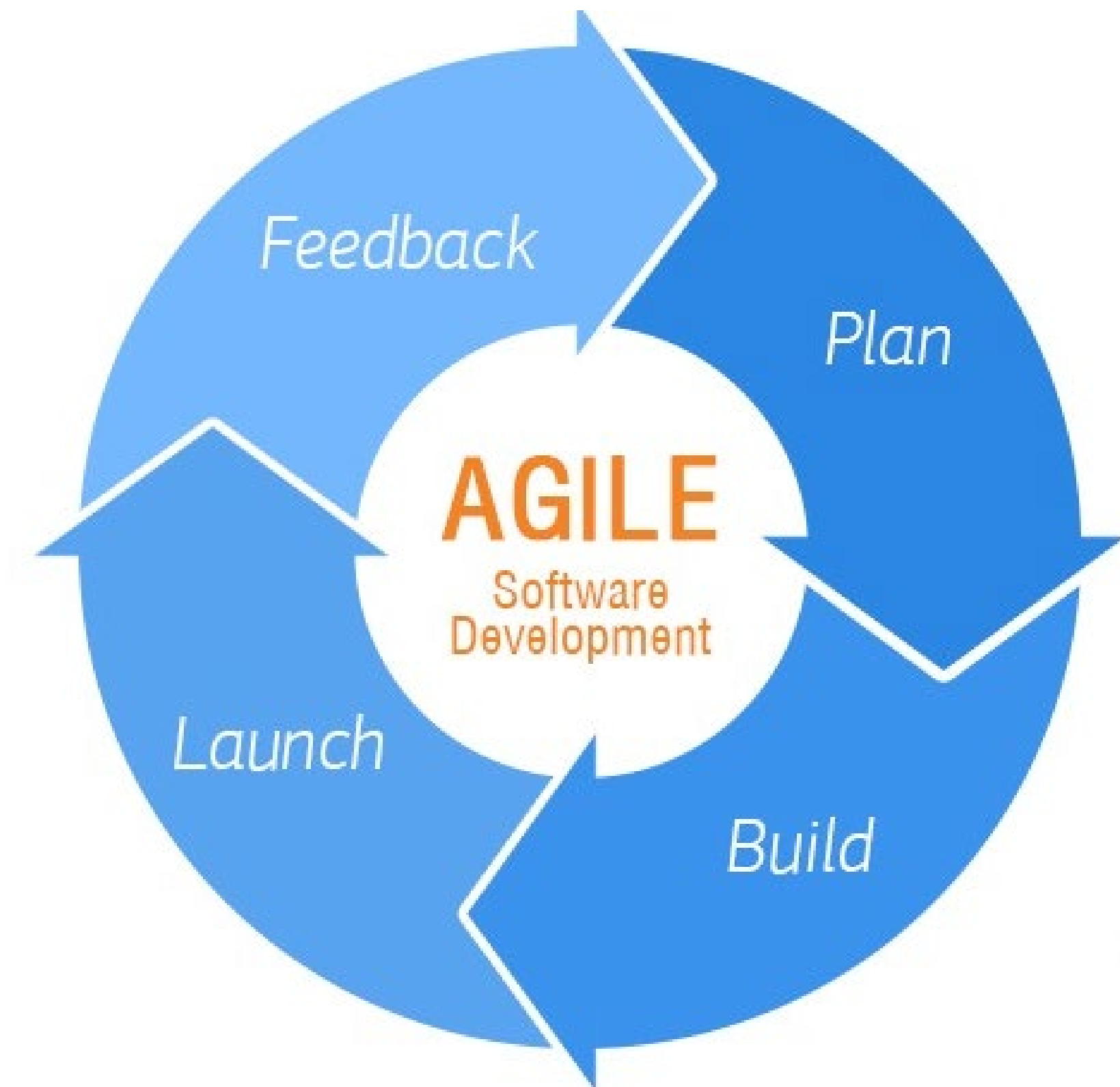
3

iOS App Development Tool

iOS is a mobile operating system that needs no introduction. This advanced Apple's creation is used on millions of iOS devices worldwide and the popularity of the solution is only increasing. The high-end iOS platform allows developers to write high-quality code for building most innovative mobile applications powering iPhones, iPads, and iPods.

Process Compliance

- It is very important that the software development is compliant with the quality standards of the organization.

- Agile Methodology is practices by different successful software projects.

Agile Roles

1

Product Owner

The **Product Owner** (PO) is a member of the **Agile** Team responsible for defining Stories and prioritizing the Team Backlog to streamline the execution of program priorities while maintaining the conceptual and technical integrity of the Features or components for the team.

2

Scrum Master

A **scrum master** is the facilitator for an agile development team. **Scrum** is a methodology that allows a team to self-organize and make changes quickly, in accordance with agile principles.

3

Scrum Team

A **Scrum Team** is a collection of individuals (typically between five and nine members) working together to deliver the required product increments.

HAPPY LEARNING!