

Roadmap to become a Software Test Engineer

2022

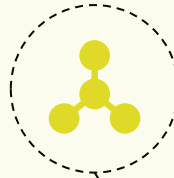
By Lamhot Siagian

Software Testing



Manual

tests are executed
manually



Automation

testers write scripts
to automate test
execution

Manual Testing



```
graph LR; C1((01)) -.- C2((02)) -.- C3((03)) -.- C4((04)); C1 --- T1[Testing Concept  
Principles, terms,  
type of tests]; C2 --- T2[Testing Tools  
JIRA, device,  
browser, Postman]; C3 --- T3[Methodology  
Agile, Scrum]; C4 --- T4[Testing Process  
Create test plan,  
test case, execute,  
report];
```

01

Testing Concept

Principles, terms,
type of tests

02

Testing Tools

JIRA, device,
browser, Postman

03

Methodology

Agile, Scrum

04

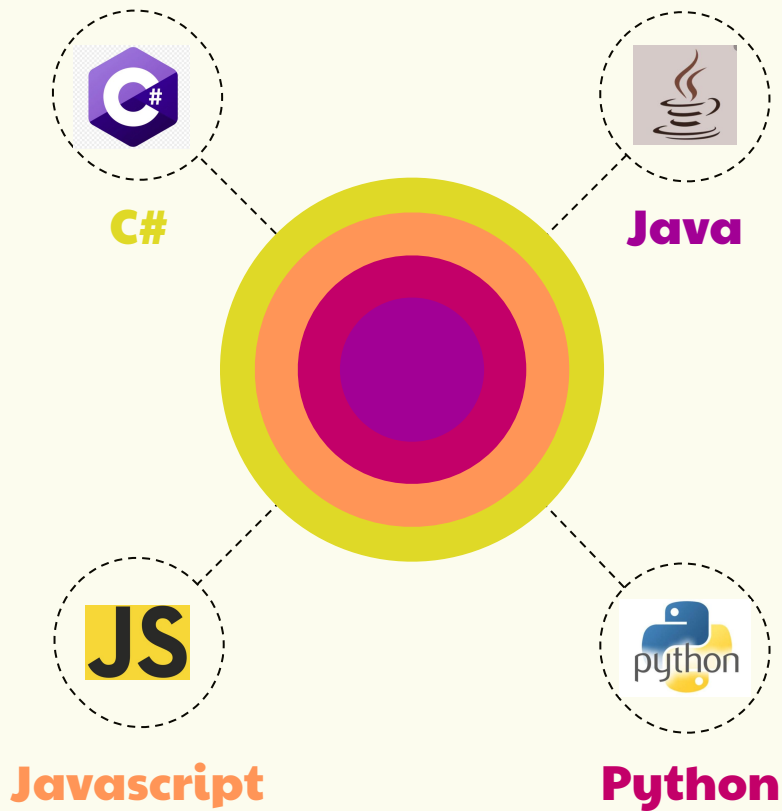
Testing Process

Create test plan,
test case, execute,
report

20 Top Test Management Tools

- #1) Zephyr Scale
- #2) PractiTest
- #3) Zephyr Squad
- #4) TestCollab
- #5) Requirements and Test Management for Jira (RTM)
- #6) XQual
- #7) Xray – Cutting Edge Test Management
- #8) TestRail
- #9) Kualitee
- #10) TestFLO for JIRA

- #11) SPIRATEST by Inflectra
- #12) Qase
- #13) Testiny
- #14) TestMonitor
- #15) Testpad
- #16) JunoOne
- #17) Klaros-Testmanagement
- #18) QACoverage
- #19) JIRA
- #20) QAComplete



Programming Skill

You need to know at least one of this programming language or another language



APACHE
HBASE

 **Cassandra**


CouchDB
relax

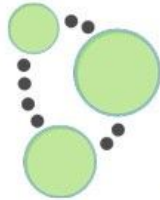


riak



mongoDB

HYPERTABLE INC



Neo4j



redis



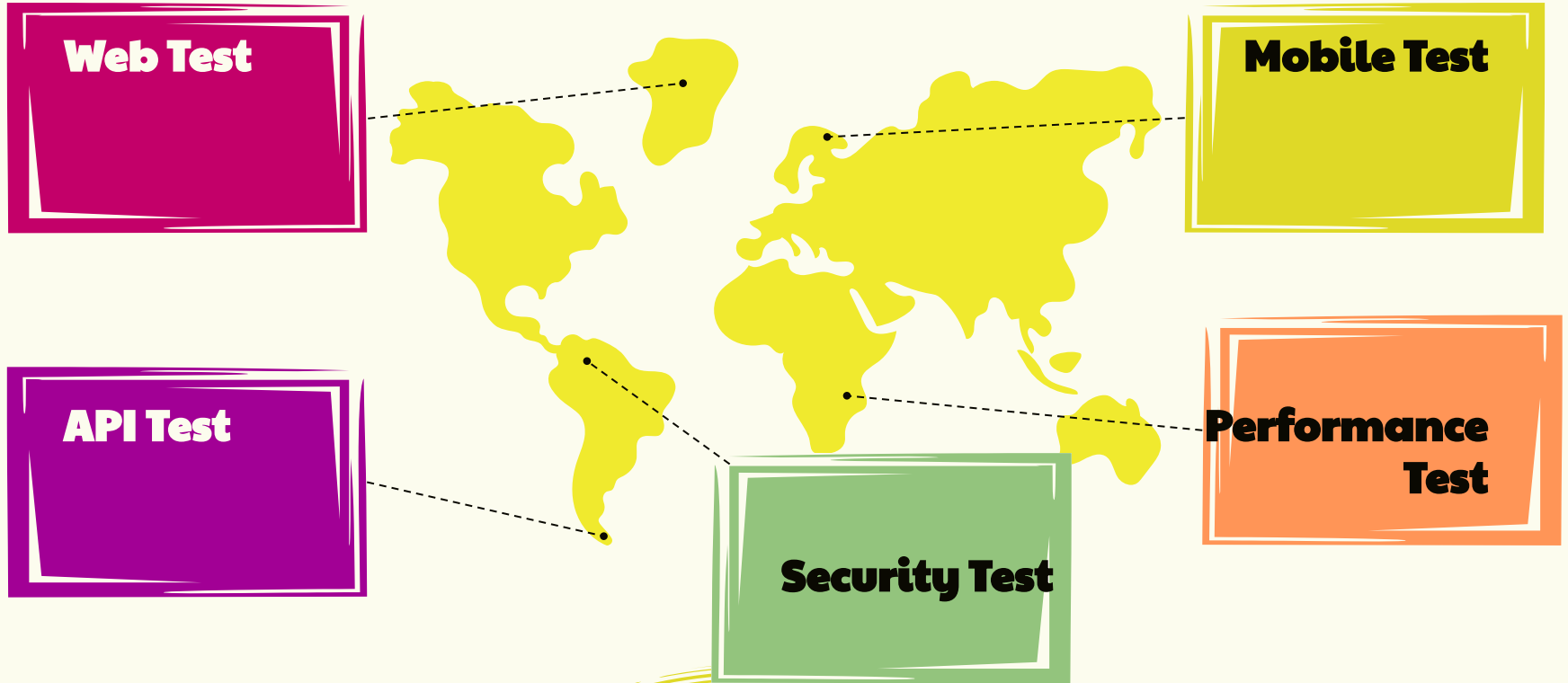
amazon
DynamoDB

Database Testing Skill

You need to know and
utilize at least one of this
database or another
database



Type of Testing



Web Testing

Selenium
Webdriver

01

Cypress

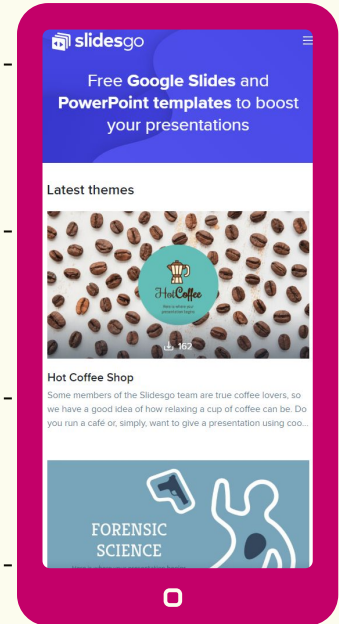
02

Watir

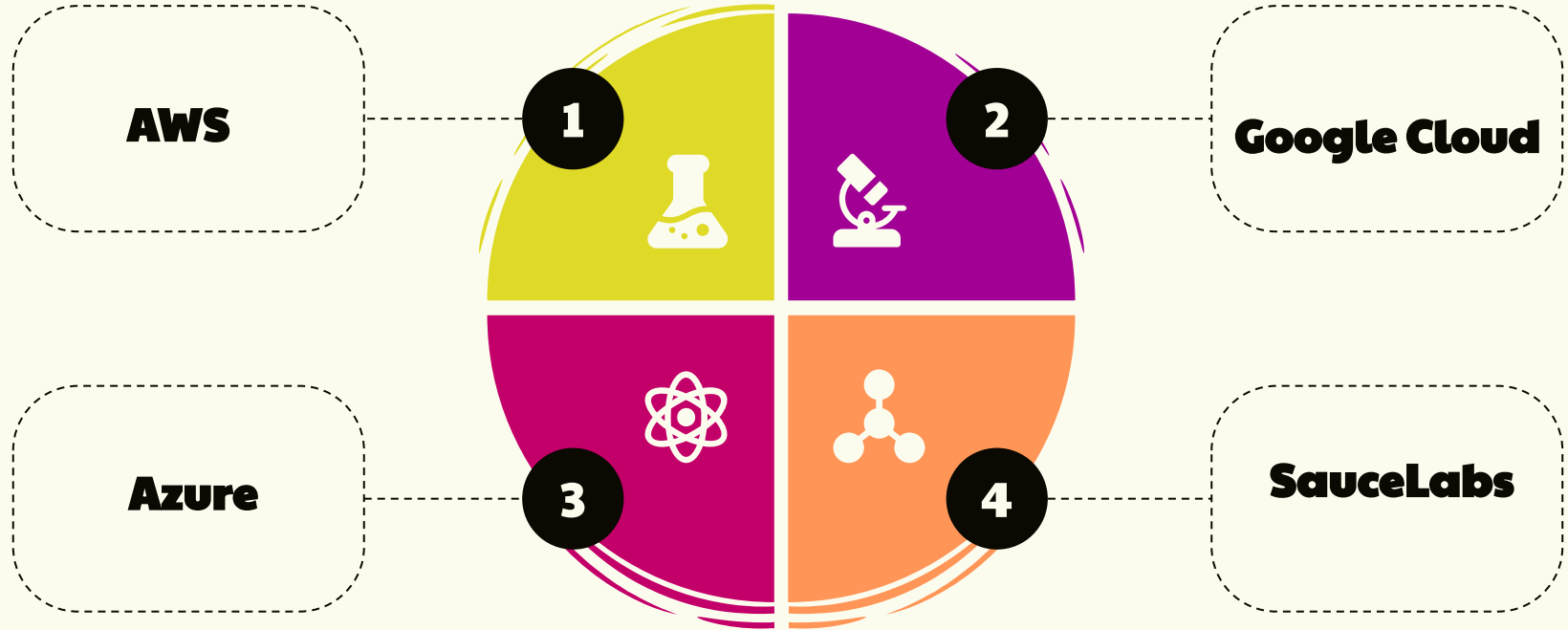
03

Katalon

04



Web Cloud Testing



Web Automation Framework



web automation framework



All

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Tools

Software framework Software / [World Wide Web](#) / Automation



Selenium
Apache Lice...



Cucumber
MIT License



Robot
Framework
Apache Lice...



Watir
BSD licenses



Capybara
MIT License



Windows
Forms
MIT License



ActiveX



Windmill
Apache Lice...

SOAP UI

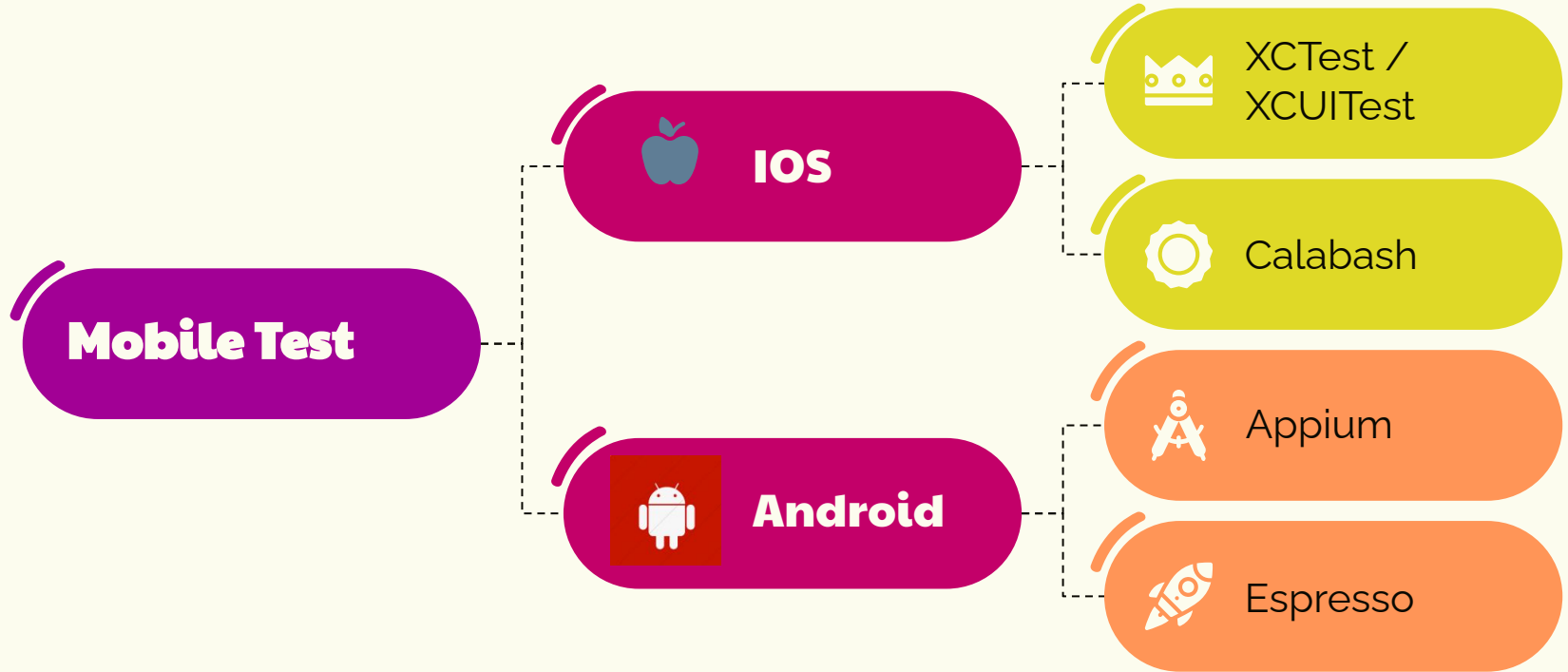
RestAssured

API TESTING

Postman

Karate API

Mobile Testing



Device Cloud Testing

AWS

AWS Device Farm

Firebase

Firebase Test Lab for Android

Perfecto

Test on Real Android & iOS Devices.

Kobiton

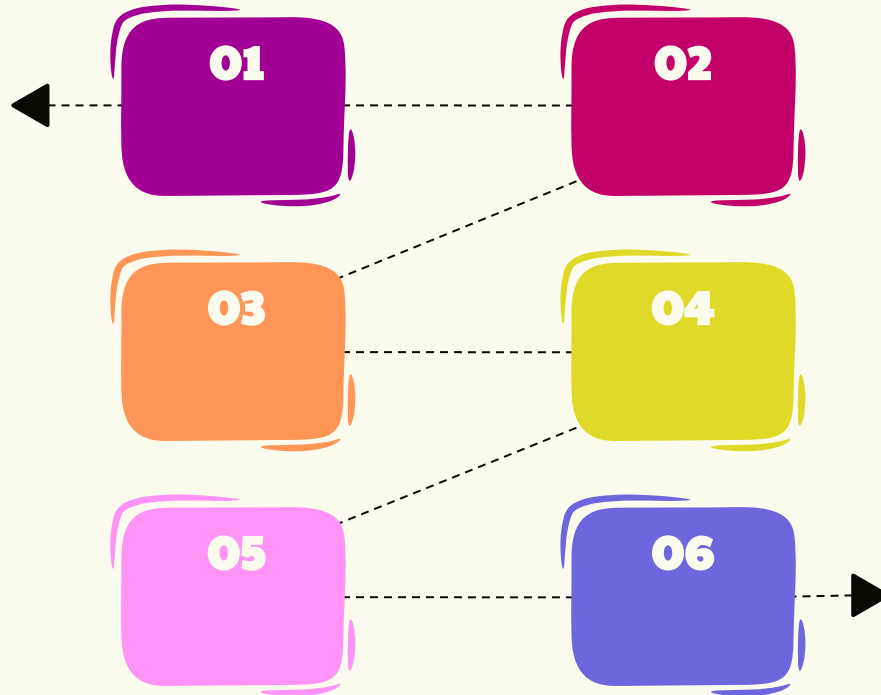
Real Mobile Device Testing

Bitbar

A Device Cloud Infrastructure

SauceLab

offers both a public and private Real Device Cloud



Performance Testing

JMeter

Apache
JMeter

Locust

An open source
load testing too

LoadUI

LoadUI is a
load testing
software

LoadRunner

software testing
tool from Micro
Focus

Rational

IBM Rational
Performance



BurpSuite

01



Nmap

02



Wireshark

03

Security Test

Security testing is a process intended to reveal flaws

CI / CD



Maven

build automation
tool for Java



Gradle

build automation tool
for multi-language



Jenkins

free and open source
automation server



GIT

Version Control



Bamboo

CI server that can be
used to automate the
release



Docker

deliver software in
packages called
containers

Unit Testing

Java



- Mockito
- JUnit
- TestNg

- Jest
- Mocha
- Jasmine

Javascript



Python



- Unittest
- pytest

- Phpunit
- Codeception
- PHPSpect

PHP



Thanks!

Do you have any questions?

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