**Computer Science, Software Engineering and Development**

**STUDY WIDE AND DEEP --- deep learning (LEARN, REFLECT, IMPLEMENT, SHARE)**

**Underlying (the base) Logical Concept implementation/Knowledge and Context model/design**

**(Under The Hook Logic)**

What does underlying mean example?

The definition of underlying refers to **something lying beneath, or the basic or root cause of something**.

**Concept: the underlying idea , how does it work, how it works**

**Use a use case scenario for examples**

**NOTE: after studying a tool, start doing projects**

**CHOOSE ONE TOPIC AND DO IT FOR ONE WEEK == e.g 7 DAYS of Python coding**

# Question: write a program that finds the largest of two hundred numbers?  
# ==== Solutions =====  
# Analyze and Understand the context of the problem  
# Try to write an algorithm - step by step problem solving skills  
# Algorithm uses pseudocode plan, search, organise, write, design the step by step solutions to a problem

**Quote – Spend 70% time studying the Theory, and 30% Practical, The basis/root of practical is theory**

**Questions:**

**What, when, where, who, how**

**Search and study the tool official documentation and it reference materials**

**Learn to learn – deep and wide learning patterns (watch coding videos and study coding snippet)**

**Representation or Presentation of data and it types**

**Everything you study resides in your short term memory, you have repeat, revieaw and refine the information to moved them into your LongTerm memory.**

**Problem Solving Skills**

**IF YOU ARE GIVEN 1 HOUR TO CUT DOWN TREE, YOU TAKE 45MINUTES SHARPENING THE AXE AND USE 15 MINUTES TO CUT DOWN THE TREE**

**Computers run programs that programmers ask them to do!**

**Cognitive Learning Levels**

K1: knowledge

K2: Understand

**Test Automation Pyramid**

**Software Testing Concepts**

K3: Apply Understanding

K4: Advance application

K 3 & 4 build projects

Books, Videos, Images, Diagrams

Build projects, Practice

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | **Technical Tools** | | |  | | --- | | **Programming Concepts** |   **TO be a successful I.T Professional, you need to**  **Know your Numbers and Alphabets**  **Ask questions on (What, When, why, How)?**  **Curiosity, Searching, Observing and finding solution to problems.**  **Creativity is the ability to develop new idea for solving problems.**   1. Learn **Computer Networking** (API, Servers, and Services) and Internet 2. Learn **Computer Programming** 3. Learn **Mathematics** (BODMAS) and **English** (noun, verbs, adjectives, Conjunctions, vowel, and consonants, singular, plurals) 4. **Algorithm** and **Data Structure**, Data Science 5. Problem Solving Skills 6. Computer Science, Physics 7. Software Engineering & Development 8. Database, Binaries 9. Computational Thinking – Logical Reasoning 10. Critical & Creative Thinking 11. Learn, Reflect, Implement and Share 12. **Design Patterns and Data Structure** 13. Time management 14. **Type representation**, i.e., string values/input/data/arguments are represented or stored in a String type 15. Conceptual knowledge of STLC and SDLC including Agile methodologies, Scrum Conceptual knowledge of Defect Reporting & Tracking (Defect Management) Basic BDD concepts including feature file creation and step definitions through Cucumber Conceptual knowledge of different testing types and test processes Good Skill set in Java and Selenium Sound Test Designing Skill 16. Code Snippet 17. What an Interface: Software interfaces (programming interfaces) are **the languages, codes, medium and messages that programs, objects, entities, components use to communicate with each other and to the hardware** 18. **Manual Software testing skills** |

**WEB/UI, DB, MOBILE APPs, API Services**

|  |  |  |
| --- | --- | --- |
| **Software Testing Concepts ISTQB** | **Programming-Scripting Languages/Test Frameworks(API)** | **Technical Tools** |
| Mobile, Test Foundation, Agile, Security, Acceptance, Test Automation Engineer, Performance, | Base Programming Languages, Java, C#, Python, Ruby, groovyscript, javaScript, PHP, XML, HTML, CSS, SQL, Linux, Unix, JSON, Window commandLine, Terminal, Shell, yaml, scala | Sonaqube, Jenkins, DevOps,  docker, Postman, SoapUi, ReadyAPI, DevOps, AWS, Azure-devOps, Selenium-Docker, Cloud computing, Jenkins, Puppet, Bamboo, Kubernettes, Tomcat, JBehave, Behave, Cucumber, SpecFlow, GitLab, Git, Maven |
|  | testNg, Serenity, pytest, SOAP, Restful API, Selenium, PlayWright, Appium, Cucumber, gherkin, behave, jbave, SpecFlow, KarateAPI, Cypress, Maven, node-module, JSON, |  |

INSPECT, THINK, INVESTIGATE, ANALYZE, CURIOSITY, RESEARCH, FINDINGS, CHECK, VALIDATE, PAY ATTENTION TO DETAILS, OBSERVE, WATCH WITH CARE, RECORD, READ, UNDERSTND

Systematic approach: careful observation, investigate any

curiosity, evaluation, and analysis, pay attention, record, and take notes

Perform a TOUR on an application or anything from a specific point of view and focus

Steps to mastering a programming

language

Look-up the standard library to locate each modules/packages and there functions

Learn the syntax/statements / SEMANTICS / LEXICAL / ALPHABE

Learn the Keywords/commands

Look up the programming documentations

And RESAERCH

**DevOps CLOUD SERVICES**

Amazon Web Services

Microsoft Azure

Google Clouds

RedHats

[Tools:

Jenkins,Puppet,Bamboo,Maven,SeleniumDocker,

Kubernettes,]

Test Automation Engineer UNIVERSITY

SDLC

Test Unit Frameworks

* NUnit
* Pytest
* TestNG
* JUNit
* MsTest

**Computer Science Courses**

* CS50 – Introduction to Computer Science
* Boot-Camps
* Problem Solving skills
* Computer Scientist
* Computational Thinking - COMP 140, 182, 200
* Algebra
* Science courses: physics, algebra
* Focus more on Scripting Interpreter languages, they help boost your scripting knowledge

**PRE-CONDITIONS, CONDITIONS, POST-CONDITIONS**

**Given,When, And Then**

**Object Relationships – One to One, One to Many, Many to many**

**Composition, Aggregation, Inheritance, dependency, Association**

**IS\_A, HAS\_A,HAS\_MANY**

LOOK UP this TECHNOLOGIES

**Appium** – (Appium documentation)

(Study theory and do there video projects) What are? Technology you must Query your Knowledge?

|  |  |
| --- | --- |
| Techees! Check out these BASE Technologies | |
| of RULES |  |

&there set

· Client and Servers Technologies (Client/Server relationships, there types)

· Database management System(DBMS)

· Relational database management system(RDBMS)

· Java programming

· SQL programming (SQLITEstudio, mySql, Oracle, Microsoft studio, mongoDB)

· Microsoft Access

· Command Line/Terminal scripting

SSH

Network Interfaces

· Putty Client

DOM

· Linux, UNIX, Window based command line or

terminal OR BASH shell programming

Batch scripting

· Data Structuring

· XML programming , XMLPATH

· JSON programming , JSONPATH

· Groovy Programming

Python programming

· Azure DevOps

· AWS

· Problem Solving Skills

· Algorithms

AJAX PROGRAMMING

· Data structure

· Computer Science

1. Expressions
2. Statements
3. Type Systems
4. Objects
5. Binary

· GIT(pull request)

TOMCAT

· OOP

· Visual Basic & [VB.NET](http://vb.net/)

· Jenkins

* **ReadyAPI**

**· Rest API & Karate API & PostMan & Curl**

· Regular Expressions & Wildcards

· JavaScript

VBScript

LiveScript, JScript, and ECMAScript

Bash shell scripting, JScript

SCALA

· MATHEMATICS

· WinSCP

YAML

· Mremoteng ([https://mremoteng.org/)](https://mremoteng.org/)

· Wireshark

· Computer Science

**ASCII Characters**

TestNG

SERENITY

CUCUMBER(Cucumber Reporting)

JAVASCRIPT EXECUTOR

ASSERTIONS (Hamcrest, TesNG,Junit)

WebServices

Npm , yarn

GATEWAY services

Selenium –ChromeOptions (PageObject Model and

PAGE FACTORY)

API Testing

Java

C#

CI/CD

XML/HTML

MAVEN

data science

REGULAR EXPRESSIONS

Learn the concept of writing a valid Function in programming

XPATH Functions

CREATE TABLE `cookbook`.`sales` (

`idsales` INT NOT NULL,

`sale\_No` INT NULL,

`sales\_price` INT NOT NULL,

`sales\_Name` VARCHAR(45) NULL,

PRIMARY KEY (`idsales`));

UPDATE `sailfish`.`sessionflagger` SET `CurrentSession`

= 'Continous Trading 2' WHERE (`id` = '1');

UPDATE `sailfish`.`symbolretrieve` SET

`Session\_Groups` = 'Normal HL' WHERE (`id` = '6');

INSERT INTO `sailfish`.`symbolretrieve` (`id`,

`InstrumentID`, `Symbol`, `Trading\_Cycle\_ID`,

`Session\_Groups`, `Book\_Definition\_ID`, `Market\_ID`,

`Description`) VALUES ('6', '10938393',

'1038IFUT120620001048493', 'EDM\_FUT\_IDX',

'OffBook', 'OFFBOOK', 'JSE\_EDM', 'Open Interest and

Double field tick');

INSERT INTO mydb.order\_tmp

SELECT \* FROM mydb.order\_tbl;

SELECT \* FROM mydb.order\_tmp

WHERE (`orderid` = '204');

UPDATE `mydb`.`order\_tmp`

SET `order\_type` = 'BodyWash', order\_name =

"Smelling Cool"

WHERE (`orderid` = '204');

API TESTING unirest api karate api sailfish test automation nodes

Rest ASSURED IO

Json,javaScript,xml,Rest,https,rest-sharp

XMLHttpRequest (chrome network component)

System Analyst

DevOps

NETWORKING interface(tcp ip address,host names, network client server request and responses )

Proxy server

Database server

Print server

Web server

Perfomance Testing

Diagram

Description automatically generated with low confidence

NOTE: STUDY OR PRACTICE IT 50 TIMES INORDER TO

MASTER THAT SKills

THEORITICALLY and PRACTICALLY SOUND IN TEST AUTOMATION ➔ books(github code, images, offial docs)

(SOFTWARE TESTING AND SOFTWARE ENGINEERING)

MANUAL & automation software testing tutorials e.g.

books & Videos

FRONT-END

MIDDEL-WARE

DATABASE MOBILE

STUDY TIPS:

1.official system or api doc

2. GIT & github

3.Book

1. video
2. java doc
3. DOCUMENTATION

Linkedin Learning, udemy,testautomation university

BUILD KNOWLEDGE(Theory) & SKILLS(Practical)

Check ->UDEMY, YOUTUBE, I.T TESTING BLOGS,

GITHUB for Docs

UDEMY AND YOUTUBE

DOWNLOAD tutorials FROM uttorent

[(https://1337x.is/login)](https://1337x.is/login)

EXTENT REPORT

Automation Life Cycle

Testing Life Cycle

Command Lines scripting

Jquery

CHAI Assertion programming Language Query, TypeScript wiremock / hoverfly

Manual (manual software testing tutorials) Syllabus &

Tutorials

Automation Syllabus & Tutorials (docs & Videos)

Agile Syllabus & Tutorials

APACHE MAVEN, CLEAN RUN AND DRY RUN

AI

BINARY TABLE----bits,bytes

**SELENIUM GRID (WITH DOCKER)**

**Recursion**

**EDX , COURSERA, UDEMY, TEST AUTOMATION UNIVERSITY**

**LINKEDIN ELEARNING**

SQLITE

MAVEN -- [https://maven.apache.org](https://maven.apache.org/) [https://maven.apache.org/surefire/maven-surefire-](https://maven.apache.org/surefire/maven-surefire-plugin/examples/testng.html)

[plugin/examples/testng.html](https://maven.apache.org/surefire/maven-surefire-plugin/examples/testng.html)

CI-CD

ANGULAR

LOG4J

Hamcrest <http://hamcrest.org/JavaHamcrest/>GPATH [http://groovy-lang.org/processing-](http://groovy-lang.org/processing-xml.html#_gpath)

[xml.html#\_gpath](http://groovy-lang.org/processing-xml.html#_gpath)

IDE’S

INTELLIJ (intellij shortcuts and tutorial)

ECLIPSE (eclipse shortcuts and tutorials)

PYCHARM

KATALON STUDIO

SCRIPTING and Command Line languages

JavaScript

TypeScript

PHP

Groovy

LINUX – VIM editor

WINDOWS

BASH

FRONT-END TOOLS

CYPRESS (MOCHA [(https://mochajs.org/)](https://mochajs.org/), CHAI)

SELENIUM IDE, WEBDRIVER, SELENIUM

GRID(RemoteWebDriver)

Selenium practice websites: <https://www.makemytrip.com/>

[(https://selenium.dev/selenium/docs/api/java/org/ope nqa/selenium/WebDriver.html)](https://selenium.dev/selenium/docs/api/java/org/openqa/selenium/WebDriver.html)

CUCUMBER, FEATURE FILES ,TAGS, behave with python [(https://www.tutorialspoint.com/cucumber/cucumber\_ features.htm)](https://www.tutorialspoint.com/cucumber/cucumber_features.htm)( [https://www.guru99.com/cucumberhttps://www.guru99.com/cucumber-basics.htmlbasics.html)](https://www.guru99.com/cucumber-basics.html) TAGS

<https://cucumber.io/docs/cucumber/>

**webdriverio**

PROGRAMMING LANGUAGES

PHYTON GRAMMING

JAVA FULL COURSE

Collections, Lambda, Abstract and Interfaces, Java annotations, Generics

[(https://www.geeksforgeeks.org/null-pointerhttps://www.geeksforgeeks.org/null-pointer-exception-in-java/,https:/www.w3schools.com/java/java\_hashmap.aspexception-in-](https://www.geeksforgeeks.org/null-pointer-exception-in-java/,https:/www.w3schools.com/java/java_hashmap.asp)

[java/,https://www.w3schools.com/java/java\_hashmap](https://www.geeksforgeeks.org/null-pointer-exception-in-java/,https:/www.w3schools.com/java/java_hashmap.asp)

[.asp)](https://www.geeksforgeeks.org/null-pointer-exception-in-java/,https:/www.w3schools.com/java/java_hashmap.asp)

JAVASCRIPT (JAVAScript on my

[https://www.youtube.com/watch?v=Qqx\_wzMmFeA](https://www.youtube.com/watch?v=Qqx_wzMmFeA&feature=push-fr&attr_tag=9hHoa31ppZYpazpN%3A6)

[HYPERLINK](https://www.youtube.com/watch?v=Qqx_wzMmFeA&feature=push-fr&attr_tag=9hHoa31ppZYpazpN%3A6)

["https://www.youtube.com/watch?v=Qqx\_wzMmFeA &feature=pushhttps://www.youtube.com/watch?v=Qqx\_wzMmFeA&feature=push-fr&attr\_tag=9hHoa31ppZYpazpN%3A6fr&attr\_tag=9hHoa31ppZYpazpN%3A6"& HYPERLINK "https://www.youtube.com/watch?v=Qqx\_wzMmFeA](https://www.youtube.com/watch?v=Qqx_wzMmFeA&feature=push-fr&attr_tag=9hHoa31ppZYpazpN%3A6)

[&feature=push-](https://www.youtube.com/watch?v=Qqx_wzMmFeA&feature=push-fr&attr_tag=9hHoa31ppZYpazpN%3A6)

[fr&attr\_tag=9hHoa31ppZYpazpN%3A6"feature=push-fr](https://www.youtube.com/watch?v=Qqx_wzMmFeA&feature=push-fr&attr_tag=9hHoa31ppZYpazpN%3A6)

[HYPERLINK](https://www.youtube.com/watch?v=Qqx_wzMmFeA&feature=push-fr&attr_tag=9hHoa31ppZYpazpN%3A6)

["https://www.youtube.com/watch?v=Qqx\_wzMmFeA](https://www.youtube.com/watch?v=Qqx_wzMmFeA&feature=push-fr&attr_tag=9hHoa31ppZYpazpN%3A6)

[&feature=pushhttps://www.youtube.com/watch?v=Qqx\_wzMmFeA&feature=push-fr&attr\_tag=9hHoa31ppZYpazpN%3A6fr&attr\_tag=9hHoa31ppZYpazpN%3A6"& HYPERLINK "https://www.youtube.com/watch?v=Qqx\_wzMmFeA](https://www.youtube.com/watch?v=Qqx_wzMmFeA&feature=push-fr&attr_tag=9hHoa31ppZYpazpN%3A6)

[&feature=push-](https://www.youtube.com/watch?v=Qqx_wzMmFeA&feature=push-fr&attr_tag=9hHoa31ppZYpazpN%3A6)

[fr&attr\_tag=9hHoa31ppZYpazpN%3A6"attr\_tag=9hHo a31ppZYpazpN%3A6)](https://www.youtube.com/watch?v=Qqx_wzMmFeA&feature=push-fr&attr_tag=9hHoa31ppZYpazpN%3A6) Node.js

JSON

XML

GROOVY SCRIPTING

C# .NET

FRAMEWORKS([https://www.youtube.com/watch?v=r\_](https://www.youtube.com/watch?v=r_5P6GVYJpY&list=PLsrZV8shpwjMkG96rkKLdNiX02S5LPIqS)

[5P6GVYJpY HYPERLINK](https://www.youtube.com/watch?v=r_5P6GVYJpY&list=PLsrZV8shpwjMkG96rkKLdNiX02S5LPIqS)

["https://www.youtube.com/watch?v=r\_5P6GVYJpY&lis t=PLsrZV8shpwjMkG96rkKLdNiX02S5LPIqS"&](https://www.youtube.com/watch?v=r_5P6GVYJpY&list=PLsrZV8shpwjMkG96rkKLdNiX02S5LPIqS)

[HYPERLINK](https://www.youtube.com/watch?v=r_5P6GVYJpY&list=PLsrZV8shpwjMkG96rkKLdNiX02S5LPIqS)

["https://www.youtube.com/watch?v=r\_5P6GVYJpY&lis t=PLsrZV8shpwjMkG96rkKLdNiX02S5LPIqS"list=PLsrZV8 shpwjMkG96rkKLdNiX02S5LPIqS)](https://www.youtube.com/watch?v=r_5P6GVYJpY&list=PLsrZV8shpwjMkG96rkKLdNiX02S5LPIqS)

TROUBLESHOOTING

DEBUGGING CODE – Step in, Step Over

CSS PROGRAMMING

HTML PROGRAMMING

XML PROGRAMMING

EXCEL PROGRAMMING

FUNCTIONAL PROGRAMMING

DOCKER ([https://docker-curriculum.com/,](https://docker-curriculum.com/) [https://www.docker.com,](https://www.docker.com/) https://hub.docker.com/\_/maven)

JAVAX, JAVA SWING

FIDDLER

WIRSHARK

OPENSHIT(https://www.openshift.com/)

JIRA

JUNIT<https://junit.org/junit4/>

TESTNG ([https://testng.org/doc/documentationhttps://testng.org/doc/documentation-main.htmlmain.html)](https://testng.org/doc/documentation-main.html) [https://testng.org/doc/index.html.](https://testng.org/doc/index.html)..

[https://howtodoinjava.com/testng/testng-](https://howtodoinjava.com/testng/testng-dataprovider/)

[dataprovider/](https://howtodoinjava.com/testng/testng-dataprovider/) PROPERTY FILES

HACKING

TFS SERVER

MATHEMATICS/COMPUTER SCIENCE

PROPERTY FILES

SOFTWARE ENGINEER

C#

PHYTHON FOR WINDOWS

FOREX and LOTTO ALGORITHMS

SWAGGER

TYPING SKILLS

SOFTWARE TESTING

FOUNDATION ISTQB

TEST AUTOMATION ENGINEER

TECHNICAL TEST ANALYST

AGILE methodology

REST api

API and WEB SERVICES REST API ([http://rest-](http://rest-assured.io/),(https:/www.mocky.io/)

[assured.io/),(https://www.mocky.io/)](http://rest-assured.io/),(https:/www.mocky.io/)

[(https://www.toolsqa.com/rest-assured-tutorial/)](https://www.toolsqa.com/rest-assured-tutorial/)

[(https://www.youtube.com/watch?v=v65rJSTHRVY](https://www.youtube.com/watch?v=v65rJSTHRVY&list=PLlsKgYi2Lw70mmEXIbNhx9B9Or-tvYhG2)....%20JWT)

[HYPERLINK](https://www.youtube.com/watch?v=v65rJSTHRVY&list=PLlsKgYi2Lw70mmEXIbNhx9B9Or-tvYhG2)....%20JWT)

["https://www.youtube.com/watch?v=v65rJSTHRVY&lis t=PLlsKgYi2Lw70mmEXIbNhx9B9Orhttps://www.youtube.com/watch?v=v65rJSTHRVY&list=PLlsKgYi2Lw70mmEXIbNhx9B9Or-tvYhG2)....%20JWTtvYhG2)....%20JWT"& HYPERLINK](https://www.youtube.com/watch?v=v65rJSTHRVY&list=PLlsKgYi2Lw70mmEXIbNhx9B9Or-tvYhG2)....%20JWT)

["https://www.youtube.com/watch?v=v65rJSTHRVY&lis t=PLlsKgYi2Lw70mmEXIbNhx9B9Or-](https://www.youtube.com/watch?v=v65rJSTHRVY&list=PLlsKgYi2Lw70mmEXIbNhx9B9Or-tvYhG2)....%20JWT)

[tvYhG2)....%20JWT"list=PLlsKgYi2Lw70mmEXIbNhx9B9](https://www.youtube.com/watch?v=v65rJSTHRVY&list=PLlsKgYi2Lw70mmEXIbNhx9B9Or-tvYhG2)....%20JWT)

[Or-tvYhG2).... JWT,](https://www.youtube.com/watch?v=v65rJSTHRVY&list=PLlsKgYi2Lw70mmEXIbNhx9B9Or-tvYhG2)....%20JWT)

JWT, OAuth 2.0

SOAPUI

KARATE

Gatling

DevOps

Chart, sunburst chart

Description automatically generated

GIT, GITHUB AWS

BITBUCKECT

GRADLE [(https://gradle.org/,](https://gradle.org/)

[https://docs.gradle.org/current/userguide/userguide.h tml)](https://docs.gradle.org/current/userguide/userguide.html)

JENKINS

[(https://www.youtube.com/watch?v=89yWXXIOisk](https://www.youtube.com/watch?v=89yWXXIOisk&list=PLhW3qG5bs-L_ZCOA4zNPSoGbnVQ-rp_dG)--)

[HYPERLINK](https://www.youtube.com/watch?v=89yWXXIOisk&list=PLhW3qG5bs-L_ZCOA4zNPSoGbnVQ-rp_dG)--)

["https://www.youtube.com/watch?v=89yWXXIOisk&lis t=PLhW3qG5bs-L\_ZCOA4zNPSoGbnVQ-rp\_dG)--"&](https://www.youtube.com/watch?v=89yWXXIOisk&list=PLhW3qG5bs-L_ZCOA4zNPSoGbnVQ-rp_dG)--)

[HYPERLINK](https://www.youtube.com/watch?v=89yWXXIOisk&list=PLhW3qG5bs-L_ZCOA4zNPSoGbnVQ-rp_dG)--)

["https://www.youtube.com/watch?v=89yWXXIOisk&lis t=PLhW3qG5bs-L\_ZCOA4zNPSoGbnVQ-rp\_dG)-"list=PLhW3qG5bs-L\_ZCOA4zNPSoGbnVQ-rp\_dG HYPERLINK](https://www.youtube.com/watch?v=89yWXXIOisk&list=PLhW3qG5bs-L_ZCOA4zNPSoGbnVQ-rp_dG)--)

["https://www.youtube.com/watch?v=89yWXXIOisk&lis t=PLhW3qG5bs-L\_ZCOA4zNPSoGbnVQ-rp\_dG)--")--](https://www.youtube.com/watch?v=89yWXXIOisk&list=PLhW3qG5bs-L_ZCOA4zNPSoGbnVQ-rp_dG)--)

[(https://itisatechiesworld.wordpress.com/)](https://itisatechiesworld.wordpress.com/)

DEPLOYMENT WITH CI-CD—PIPELINE INTEGRATION

Team Foundation Server (TFS)

BAMBOO

DOCKER

KUBERNETES

PUPPET ENTERPRISE

ANSIBLE

NAGIOS

RAYGUN

SONARCUBE (local and remote)

QTest

SLACK

DEVELOP DATADRIVEN AND KEYWORD DRIVEN

TESTING approaches

DATABASE SQL

ORACLE—JDBC DRIVERS

MICROSOFT

MYSQL

SQL Scripts XAMP SERVER postgresql

REPORTING TOOL

TestNG

SERENITY <https://github.com/serenity-dojo),(>[http://thucydides.info/docs/serenityhttp://thucydides.info/docs/serenity-staging/staging/#\_serenity\_with\_cucumber)](http://thucydides.info/docs/serenity-staging/)

api

MOBILE TESTING

APPIUM ([https://www.toolsqa.com/mobilehttps://www.toolsqa.com/mobile-automation/appium/appium-tutorial/automation/appium/appium-](https://www.toolsqa.com/mobile-automation/appium/appium-tutorial/)

[tutorial/)](https://www.toolsqa.com/mobile-automation/appium/appium-tutorial/),([https://www.youtube.com/watch?v=yTW7h ZZfTYo HYPERLINK](https://www.youtube.com/watch?v=yTW7hZZfTYo&list=PLUDwpEzHYYLsx_2JFNBMITjHqTnuszhb_)

["https://www.youtube.com/watch?v=yTW7hZZfTYo&li st=PLUDwpEzHYYLsx\_2JFNBMITjHqTnuszhb\_"&](https://www.youtube.com/watch?v=yTW7hZZfTYo&list=PLUDwpEzHYYLsx_2JFNBMITjHqTnuszhb_)

[HYPERLINK](https://www.youtube.com/watch?v=yTW7hZZfTYo&list=PLUDwpEzHYYLsx_2JFNBMITjHqTnuszhb_)

["https://www.youtube.com/watch?v=yTW7hZZfTYo&li st=PLUDwpEzHYYLsx\_2JFNBMITjHqTnuszhb\_"list=PLUD wpEzHYYLsx\_2JFNBMITjHqTnuszhb\_](https://www.youtube.com/watch?v=yTW7hZZfTYo&list=PLUDwpEzHYYLsx_2JFNBMITjHqTnuszhb_)[)https://bitbucket. org/appium/appium.app/downloads/,](https://bitbucket.org/appium/appium.app/downloads/)[,https://appium. github.io/java-client/](https://appium.github.io/java-client/)

[(https://developers.google.com/web/tools/chrome-](https://developers.google.com/web/tools/chrome-devtools/remote-debugging/)

[devtools/remote-debugging/)](https://developers.google.com/web/tools/chrome-devtools/remote-debugging/)

Selendriod selendroid.oi

IOS

ANDRIOD Studio

ANDRIOD programming

PERFORMANCE TESTING

JMETER

[(https://www.youtube.com/watch?v=n9LvETGbAB0](https://www.youtube.com/watch?v=n9LvETGbAB0&list=PLUDwpEzHYYLs33uFHeIJo-6eU92IoiMZ7&index=6)

[HYPERLINK](https://www.youtube.com/watch?v=n9LvETGbAB0&list=PLUDwpEzHYYLs33uFHeIJo-6eU92IoiMZ7&index=6)

["https://www.youtube.com/watch?v=n9LvETGbAB0&li st=PLUDwpEzHYYLs33uFHeIJohttps://www.youtube.com/watch?v=n9LvETGbAB0&list=PLUDwpEzHYYLs33uFHeIJo-6eU92IoiMZ7&index=66eU92IoiMZ7&index=6"& HYPERLINK](https://www.youtube.com/watch?v=n9LvETGbAB0&list=PLUDwpEzHYYLs33uFHeIJo-6eU92IoiMZ7&index=6)

["https://www.youtube.com/watch?v=n9LvETGbAB0&li st=PLUDwpEzHYYLs33uFHeIJo-](https://www.youtube.com/watch?v=n9LvETGbAB0&list=PLUDwpEzHYYLs33uFHeIJo-6eU92IoiMZ7&index=6)

[6eU92IoiMZ7&index=6"list=PLUDwpEzHYYLs33uFHeIJo -6eU92IoiMZ7 HYPERLINK](https://www.youtube.com/watch?v=n9LvETGbAB0&list=PLUDwpEzHYYLs33uFHeIJo-6eU92IoiMZ7&index=6)

["https://www.youtube.com/watch?v=n9LvETGbAB0&li st=PLUDwpEzHYYLs33uFHeIJohttps://www.youtube.com/watch?v=n9LvETGbAB0&list=PLUDwpEzHYYLs33uFHeIJo-6eU92IoiMZ7&index=66eU92IoiMZ7&index=6"& HYPERLINK](https://www.youtube.com/watch?v=n9LvETGbAB0&list=PLUDwpEzHYYLs33uFHeIJo-6eU92IoiMZ7&index=6)

["https://www.youtube.com/watch?v=n9LvETGbAB0&li st=PLUDwpEzHYYLs33uFHeIJohttps://www.youtube.com/watch?v=n9LvETGbAB0&list=PLUDwpEzHYYLs33uFHeIJo-6eU92IoiMZ7&index=66eU92IoiMZ7&index=6"index=6)](https://www.youtube.com/watch?v=n9LvETGbAB0&list=PLUDwpEzHYYLs33uFHeIJo-6eU92IoiMZ7&index=6)

AUTOMATION SKILLS REQUIRED

[https://www.quora.com/What-are-the-must-havehttps://www.quora.com/What-are-the-must-have-skills-for-automation-testersskills-for-automation-testers](https://www.quora.com/What-are-the-must-have-skills-for-automation-testers)

URLS

<https://www.w3schools.com/>

[https://www.geeksforgeeks.org/c-programminghttps://www.geeksforgeeks.org/c-programming-language/language/](https://www.geeksforgeeks.org/c-programming-language/) <https://testautomationu.applitools.com/><https://courses.ultimateqa.com/>[https://www.youtube.com/channel/UCBU\_TzaPsDXXe](https://www.youtube.com/channel/UCBU_TzaPsDXXeQ3ItUYKaJg/videos)

[Q3ItUYKaJg/videos](https://www.youtube.com/channel/UCBU_TzaPsDXXeQ3ItUYKaJg/videos)

PROJECTS

TestNG project

SERENITY project

MAVEN project

EXTENT-REPORT project ([https://extentreports.com/)](https://extentreports.com/)

JAVA EXAM

OCA & OCP

JAVA IO PACKAGES

[(https://www.tutorialspoint.com/java/io/bufferedread er\_readline.htm)](https://www.tutorialspoint.com/java/io/bufferedreader_readline.htm)

JAVA DOCS

SPECIFIC TOPICS

Comparison of files in any programming language

JAVA- properties file, Regular Expressions

JAVA Math class

<https://www.w3schools.com/>

APACHE POI java

[(https://www.java67.com/2014/09/how-to-read-writehttps://www.java67.com/2014/09/how-to-read-write-xlsx-file-in-java-apache-poi-example.htmlxlsx-file-in-java-apache-poi-example.html)](https://www.java67.com/2014/09/how-to-read-write-xlsx-file-in-java-apache-poi-example.html) [https://www.youtube.com/watch?v=brFtzAF1vMw](https://www.youtube.com/watch?v=brFtzAF1vMw&t=228s)

[HYPERLINK](https://www.youtube.com/watch?v=brFtzAF1vMw&t=228s)

["https://www.youtube.com/watch?v=brFtzAF1vMw&t](https://www.youtube.com/watch?v=brFtzAF1vMw&t=228s)

[=228s"& HYPERLINK](https://www.youtube.com/watch?v=brFtzAF1vMw&t=228s)

["https://www.youtube.com/watch?v=brFtzAF1vMw&t](https://www.youtube.com/watch?v=brFtzAF1vMw&t=228s)

[=228s"t=228s)](https://www.youtube.com/watch?v=brFtzAF1vMw&t=228s),

logical assessment tests

UNIVERSITY OF THE PEOPLE

[(https://your.uopeople.edu/)](https://your.uopeople.edu/)

**QUICK CHECKS**

Design Pattern patterns for any API

Data driven

**Context** in selenium

Generics in JAVA

difference between a **Plugin** and **dependency** in maven

vnc

Cucumber with TestNG

Key value pairs

Github Actions functionality

XMLHttpRequest javaScript API

**Sources of all my career study materials**

1. Books in Github
2. Books in hardrive
3. Hard copy textbooks and Notebook
4. Books in Google drive accounts
5. Books in OneDrive Microsoft account
6. Books and stuffs on my email
7. Websites .eg EDX, COURSERA, geeks, w3cs school, Testa Automation university,
8. Google chrome bookmarks
9. Amazon , google cloud back up
10. write defensive coding, think of all that could go wrong  
    during runtime execution, all positive and negative events
11. that could break our code  
    create a set of test data for testing your code
12. [Test Automation University | Applitools](https://testautomationu.applitools.com/)
13. [Learn to Code — For Free — Coding Courses for Busy People (freecodecamp.org)](https://www.freecodecamp.org/)
14. [Automation Testing Tutorials | Selenium Tutorials | Selenium Testing Tutorials (techcanvass.com)](https://techcanvass.com/blogs/Automation-testing-resource-library.aspx)
15. [Software Testing Help - Free Software Testing & Development Courses](https://www.softwaretestinghelp.com/)