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**Course Title :: DevSecOps to**

**(Tools related Project Development Project Security**

**Project Operations (Deployment(release), maintainance and enhancement )**

**pre-requisites :: Core java, little bit adv.java + common sense**

**duration :: 50 sessions**

**timings: 7pm to 8:30/8:40 pm**

**weekly 6/7 sessions**

**Course fee :: It is part of package for java fullstack course and Placement batch course (others are not allowed)**

**Tools which will be covered ::**

**maven, gradle**

**GIT**

**Junit, Mockito**

**Slf4j**

**Faculty and Admin Details ::**

**FB Group name :: natarazjavaarena**

**FB group url :: <https://www.facebook.com/groups/388095825162910>**

**To collect material :: <https://www.facebook.com/groups/388095825162910/files> (batch code ::NTTools 701)**

**email id :: natarazjavaarena@gmail.com**

**for new Batches Info :: <https://nareshit.com/new-batches-hyderabad/> youtube url::**

**<https://www.youtube.com/NareshIT> admin details ::**

**7337313419-ADMIN NANDINI**

**Sonar Qube**

**jacoco**

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**Agile (SDLC methodology)**

**JIRA**

**Jenkins**

**Docker**

**K8S (Kubernetes)**

**ELK stack (Elastic, Logstash, kibana)**

**Jmeter**

**Log4j**

**Lombok api**

**additional tools**

**and etc..**

**Aws related tools**

DataDog, CodeChef, Herek u and etc..

=> The organization for whom Project is developed is called client organization

=> The company who provides software solutions by gathering the requirements from the client org is called Software company or software services company  
s/w services company

CTS

Client Orgnization

-> AMEX, Amerprise

Virtus -POLARIS Capgemini TCS

Citi bank

AirBus

-> E-Governance (govt project)

=> The software company who gathers requirements from the client org and designs, develops, releases the Project exclusively for that client organization is called Software Services company eg:: CTS,wipro,infosys, tcs, Capgemini and etc..

=> The software company who actually designs and develops the Project on their own funding and releases to market to sell to multiple client orgizations is called Software product company eg:: Druva soft (Tally), SumTotal (School ERP), Microsoft (Ms-office), Google (Google maps) and etc...

as

=>Every Software Project under goes the following 4 phases (Also called enviroments/profiles)

a) Development

b) Testing

c) UAT (User Acceptance Test)

d) Production

Developement

Proj1

UAT

Testing

Proj 1

release

Proj:1

Production

Proj 1

At Software\_company side

note:: Software company uses either

Local Setup or Cloud setup (AWS) for this (best)

Offshore Location (CTS - hyd)

(or)

**At Client organization side**

**note:: Client org can use either Local setup or cloud setup**

□

**Onsite Location (Citibank -London) Onshore Location**

**Onshore Location**

**=>while/After releasing the Project, the client org location is called Onsite/OnShore Location**

**and the software company location is called offshore/offsite Location**

**=> The Offshore team always supports the Onsite team**

**=> The Testing that happens on the released project at client org side is called UAT (User Acceptance Test)**

**OnLiners about these tools**

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**maven ---> build tool to build the Project (nothing but keeps the project ready for execution) gradle ----> build tool**

**GIT ----> Code repository for developers and testers (Common for the team members to share each others work) SLF4J (Simple Logging Facade for Java) -----> logging api --> keeps track App's code flow**

**Junit ---> For unit testing (Programmer's Testing on his piece of code)**

**Mockito ---> Also part of unit testing but actually used for creating Proxy /Dummy objects to involve and complete the Testing process**

**SonarQube :: Static Code Analysis tool which checks whether code is following coding standards or not**

**Jacoco :: Code Coverage tool which whether testing done on the project is executing 80% of the code or not (ideal range)**

**ELK stack :: Combination 3 tools that are given to gather and monitor log messages collected from the multiple log files**

**JMeter :: Performance Testing tool.. Tell whether at that given speed for given no. of requests or not website**

**can bare**

**Jenkins :: CI/CD tool (Continuous Integration and Continuous Delivery) (Automates the build and deployment process)**

**Docker ::**

**Allows us to pack Code and environment(setup)**

**By having docker container in another machine we can also execute our code in any machine**

**Kubernetes (K8S):: In big projects, we take multiple docker containers having code + software setup .. K8S tool helps us to manage docker containers effectively by enabling auto scaling and Load balancing features**

**Plan ur**

**software career in the following model**

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**a) In the maintenance projects of software services company (initial 2 years)**

b) In the new projects of software services company (next 2-3 years)

c) In projects of software Products company (next 2-3 years)

d) In projects of software Vendor company (next 2-3 years)

=> The software company who creates and releases the softwares (languages or technologies or frameworks)

is called software vendor company

eg:: Microsoft, google, oracle corp, amazon and etc..