

28.03May.CI/CT Selenium, Jenkins

3 May 2023 07:07 PM

Continues Testing

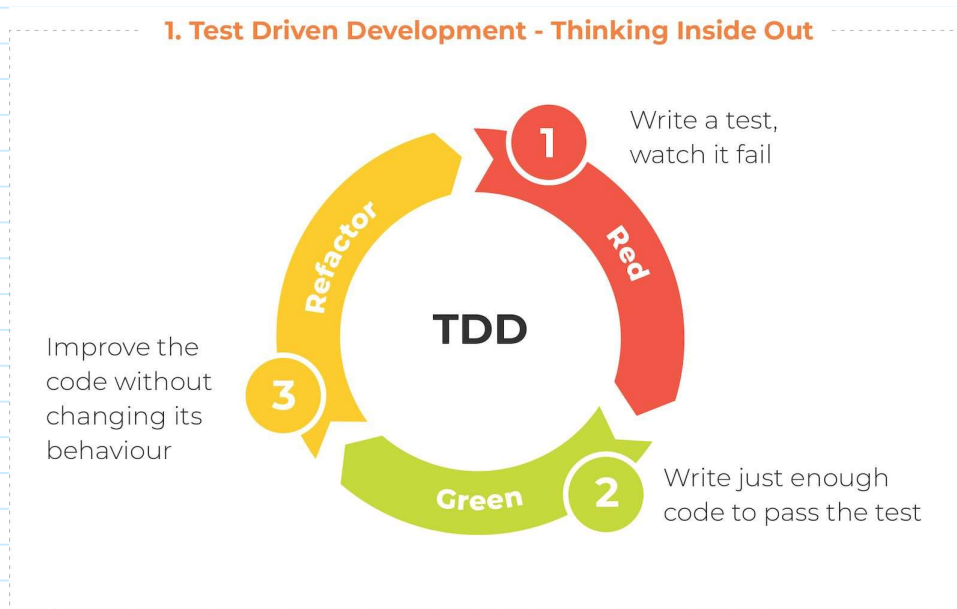
- Phase of SDLC, evaluate software quality
- Providing Critical feedback
- Higher quality and faster delivery

Automated Test Cases --> Execute Cases on intervals basis
Using Pipeline

Types:

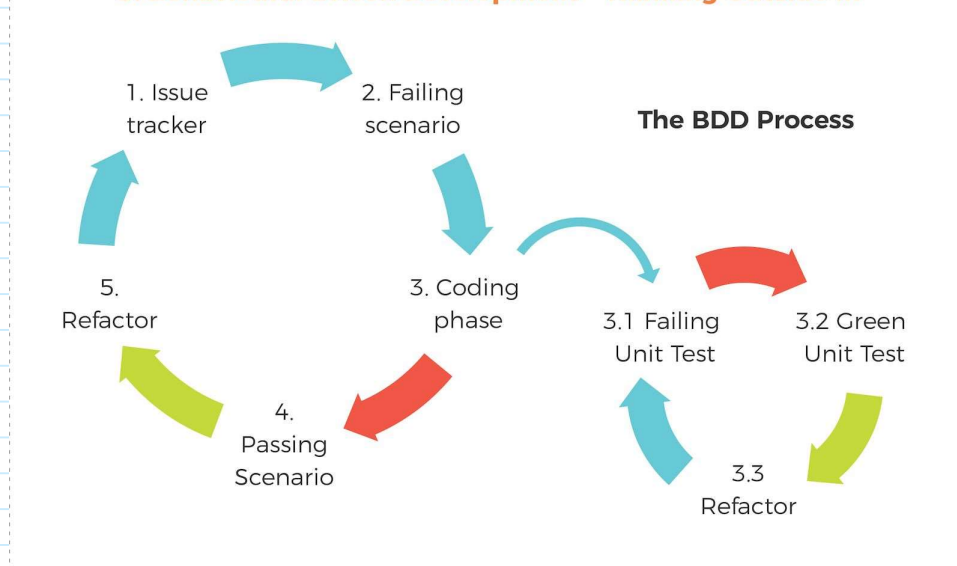
- Integration
- Unit
- Acceptance
- Load Testing

TDD(Test Driven Development)



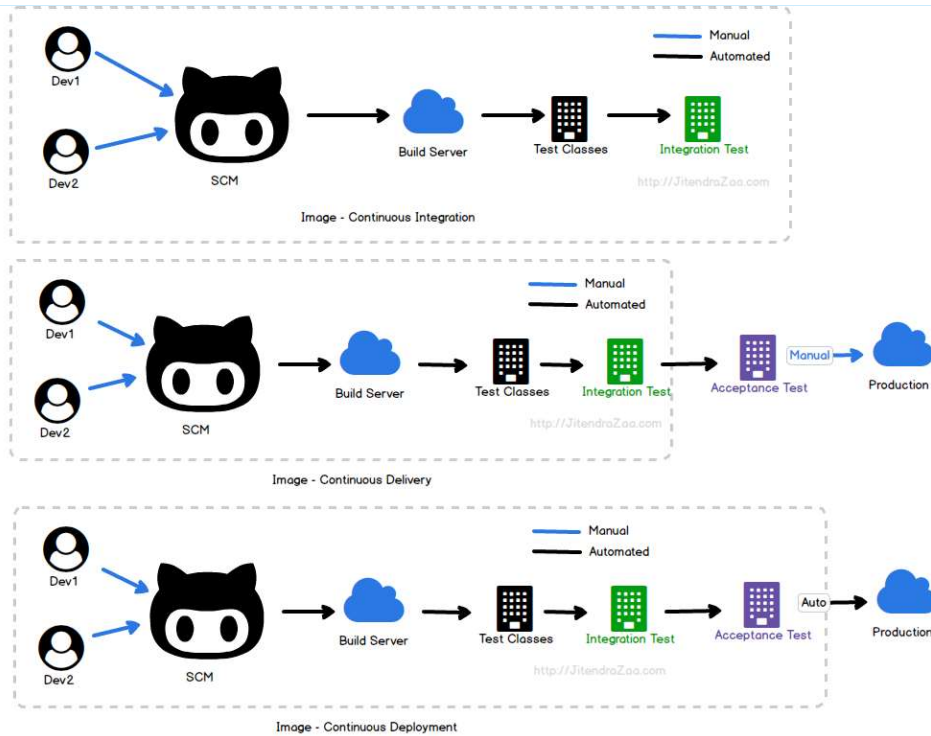
BDD(Behavioural Driven Development)

3. Behavioural Driven Development - Thinking Outside In



Selenium

- Web UI Automation testing suite.
- Open source
- Multiple Operating System
- Multiple Programming Language
- Multiple Frameworks
- Multiple Browsers
- Web-based automated testing tool
- Functional Testing
- Integrated with automation test tool using(**Continues Testing**)
 - Apache Maven
 - Docker
 - Jenkins



CI/CD = Jenkins --> Pipeline(CT, CI, CDev, CDep, CI/CD)

CT

```
# github-login
```

Trying out selenium in java with [ChromeDriver]

(<https://chromedriver.storage.googleapis.com/index.html>) (download the right version for your laptop)

```
# git clone https://github.com/NubeEra-MCO/Mvn-Selenium-GithubLogin-AllRepo.git
```

```
# cd Mvn-Selenium-GithubLogin-AllRepo
```

```
# mvn clean
```

```
# mvn compile
```

```
# cd target\classes
```

```
# java gh.login.App
```

Enter Your Login: mujahed85

Enter Your password: ***

Output

Maven --> Jenkins

1. Console Java Based Application - Command Line
2. Console Java Based Application - Apache Maven
3. Unit Testing using Junit
4. CalculatorApp

Ticket: Deploy Jenkins Server and Create Free style job

1. On AWS Order EC2 Instance(Public IP: 34.238.53.130)
 - a. Keypair(upload mujahed.pub)
 - b. Security Group

2. Connect to Server(SSH Client Tool)

a. MobaXterm(Easiest)

b. Putty(Portable --> PPK file)

- i. Open Putty --> Goto Session --> Hostname
- ii. Enter Host: ubuntu@34.238.53.130
- iii. Connections --> SSH --> Auth --> Credentials = Select **mujahed.ppk** file
- iv. Key Pass phrase: mujahed.ppk file

c. SSH Command(Generic way = MacOS, Ubuntu, Redhat, Windows)

3. Execute Commands:

- a. `$ sudo su`
- b. `# apt update`
- c. `# curl -fsSLhttps://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee
V/usr/share/keyrings/jenkins-keyring.asc >/dev/null`
- d. `# echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc]
Vhttps://pkg.jenkins.io/debian-stable binary/ | sudo tee
V/etc/apt/sources.list.d/jenkins.list >/dev/null`
- e. `# sudo apt-get update`
- f. `# sudo apt-get install jenkins`

Jenkins Reset: `/var/lib/jenkins/config.xml`

Administration

Stackoverflow, Serverfault, DigitalOcean, Phoenixnap, Techmint

Check Version Jenkins

```
$ jenkins --version
```

Check Jenkins Server is Running/Not:

```
$ systemctl status jenkins  
$ systemctl start jenkins
```

Jenkins Components

- Jobs
 - Free Style(Concepts - GUI Way)
 - Pipeline(Scripting way)
 - Inline
 - Jenkinsfile
- Plugins
- Workspace
 - Example: Git clone, touch abc.txt
 - user activity data
- Configuration
- Credentials