Azure Devops Fundamentals

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Azure Devops Server product of Microsoft Portal

1. Version Control: -
2. Reporting of
3. Requirements gathering
4. Automated Build and Deployment

Azure Devops Portal

Boards

Repos:- Repository to push your code, push ,pull

Project Planning

Pipeline:- Build Pipeline Stage

UAT

End to End Application Testing

Phase 1

DevOps Capabilities such as CI / CD

Phase 2

Project Life Cycle in Azure Devops

Basic Knowledge on GIT :- Refer youtube

Basic Knowledge on Agile

Azure Devops Services

Different Components such as Azure Devops, Pipelines,

Deployments Basics

What is deployment?

Application/Web Servers which handles the http/https request and sends response over http protocol

What is hosted server?

It is Physical machine where application /Web/Database servers are hosted.

Linux/Windows Machine

Application Server (Tomcat Server) Build file will be placed

Hosted Server

IP Address (xx.xx.xx.xx) which is brough from aws

Port Number 8080

Domain Name (godaddy) (Custom domain name)

Artifacts (war file, which take of application)

Angular Project

Ng build :- Angular Project (dist file)

Continuous Integration (CI) Is a Process of automating the build and testing of code every time a team member

* Git repository

Make Change in code and push to repository

Github notifies to any third party such as Azure/Jenkins , Azure will triggers build and creates the war file.

Continuous Delivery (CD)

Artifacts

Build commands

Mvn clean install

<https://aws.amazon.com/devops/continuous-integration>

Azure Devops Portal

Build Pipeline: - (Build and Publish the artifacts) These Pipeline jobs cone the code from assigned repositions and build the project based on the instructions provided in yaml file.

<https://github.com/rahulshetty>

import repository link

Create/Build Artifacts

Configure your pipeline

Yaml File,

Yaml file will be created and responsible

Java: - Maven Projects

JavaScript: - Node

Building the projects Stack is different language.

Instructions has to provide in pipeline using yaml file.

Yaml File is hot

Ubuntu Agent machine,

Release Pipeline

GIT

Git is a version Control System

https://confulence.atlassian.com/bitbucketserver/basic-git-commands

X :- Write

Y :-

Code

Staging

Commit

Push to github

Branching is necessary

Master is a root Branch

Take a branch from the master as Develop Branch

Git checkout -b branchname (For Creating the Branch)

Git checkout branchname (Switch to branch)

Git branch (get to know where we are pointing)

Git merge master

Git status

Git push origin

Git clone remote

Git init

Git status

Git add \*

Git commit -m “Message for Commit “

Git push

Git branch

Git pull https://github/pkinagi/QA

Microsoft Windows [Version 10.0.18363.1256]

(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\user>git config --global user.name "Prashant"

C:\Users\user>git config --global user.email "pkinagi@gmail.com"

C:\Users\user>cd..

C:\Users>cd..

C:\>D:

D:\>cd "HPe Documents"

D:\HPe Documents>cd GitFiles

D:\HPe Documents\GitFiles>cd "hpeSSD Projects"

D:\HPe Documents\GitFiles\hpeSSD Projects>cd hpeSSDAutomation

D:\HPe Documents\GitFiles\hpeSSD Projects\hpeSSDAutomation>git init

Initialized empty Git repository in D:/HPe Documents/GitFiles/hpeSSD Projects/hpeSSDAutomation/.git/

D:\HPe Documents\GitFiles\hpeSSD Projects\hpeSSDAutomation>git add \*

error: 'SSD-Automation-Testing/' does not have a commit checked out

fatal: adding files failed

D:\HPe Documents\GitFiles\hpeSSD Projects\hpeSSDAutomation>git add \*

warning: LF will be replaced by CRLF in debug.log.

The file will have its original line endings in your working directory

error: 'repository/' does not have a commit checked out

fatal: adding files failed

D:\HPe Documents\GitFiles\hpeSSD Projects\hpeSSDAutomation>git add \*

warning: LF will be replaced by CRLF in debug.log.

The file will have its original line endings in your working directory

error: 'repository/' does not have a commit checked out

fatal: adding files failed

D:\HPe Documents\GitFiles\hpeSSD Projects\hpeSSDAutomation>git init

Initialized empty Git repository in D:/HPe Documents/GitFiles/hpeSSD Projects/hpeSSDAutomation/.git/

D:\HPe Documents\GitFiles\hpeSSD Projects\hpeSSDAutomation>git add \*

warning: LF will be replaced by CRLF in debug.log.

The file will have its original line endings in your working directory

error: 'repository/' does not have a commit checked out

fatal: adding files failed

D:\HPe Documents\GitFiles\hpeSSD Projects\hpeSSDAutomation>cd..

D:\HPe Documents\GitFiles\hpeSSD Projects>cd..

D:\HPe Documents\GitFiles>git init

Initialized empty Git repository in D:/HPe Documents/GitFiles/.git/

D:\HPe Documents\GitFiles>git add \*

warning: LF will be replaced by CRLF in debug.log.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in hpeSSD Projects/.metadata/.log.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in hpeSSD Projects/.metadata/.plugins/org.eclipse.m2e.logback.configuration/logback.1.16.0.20200318-1040.xml.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in hpeSSD Projects/hpeSSDAutomation/debug.log.

The file will have its original line endings in your working directory

error: 'hpeSSD Projects/hpeSSDAutomation/repository/' does not have a commit checked out

fatal: adding files failed

D:\HPe Documents\GitFiles>git init

Initialized empty Git repository in D:/HPe Documents/GitFiles/.git/

D:\HPe Documents\GitFiles>git add \*

D:\HPe Documents\GitFiles>git commit -m "My First Commit"

[master (root-commit) 1783929] My First Commit

13 files changed, 261 insertions(+)

create mode 100644 .classpath

create mode 100644 .project

create mode 100644 .settings/org.eclipse.core.resources.prefs

create mode 100644 .settings/org.eclipse.jdt.core.prefs

create mode 100644 .settings/org.eclipse.m2e.core.prefs

create mode 100644 pom.xml

create mode 100644 src/main/java/hpe/SSDSelectorTool/App.java

create mode 100644 src/test/java/hpe/SSDSelectorTool/AppTest.java

create mode 100644 target/classes/META-INF/MANIFEST.MF

create mode 100644 target/classes/META-INF/maven/hpe/SSDSelectorTool/pom.properties

create mode 100644 target/classes/META-INF/maven/hpe/SSDSelectorTool/pom.xml

create mode 100644 target/classes/hpe/SSDSelectorTool/App.class

create mode 100644 target/test-classes/hpe/SSDSelectorTool/AppTest.class

D:\HPe Documents\GitFiles>git remote add origin https://github.com/pkinagi/GitDemo.git

D:\HPe Documents\GitFiles>git push origin

fatal: The current branch master has no upstream branch.

To push the current branch and set the remote as upstream, use

git push --set-upstream origin master

D:\HPe Documents\GitFiles>git push origin master

Logon failed, use ctrl+c to cancel basic credential prompt.

Username for 'https://github.com': pkinagi@gmail.com

Password for 'https://pkinagi@gmail.com@github.com':

Enumerating objects: 35, done.

Counting objects: 100% (35/35), done.

Delta compression using up to 4 threads

Compressing objects: 100% (20/20), done.

Writing objects: 100% (35/35), 4.38 KiB | 898.00 KiB/s, done.

Total 35 (delta 0), reused 0 (delta 0), pack-reused 0

To https://github.com/pkinagi/GitDemo.git

\* [new branch] master -> master

D:\HPe Documents\GitFiles>cd..

D:\HPe Documents>cd GitFiles

D:\HPe Documents\GitFiles>cd

D:\HPe Documents\GitFiles

D:\HPe Documents\GitFiles>cd..'

The system cannot find the path specified.

D:\HPe Documents\GitFiles>cd..

D:\HPe Documents>git colne https://github.com/pkinagi/GitDemo.git

git: 'colne' is not a git command. See 'git --help'.

The most similar command is

clone

D:\HPe Documents>git clone https://github.com/pkinagi/GitDemo.git

Cloning into 'GitDemo'...

remote: Enumerating objects: 35, done.

remote: Counting objects: 100% (35/35), done.

remote: Compressing objects: 100% (20/20), done.

remote: Total 35 (delta 0), reused 35 (delta 0), pack-reused 0

Unpacking objects: 100% (35/35), 4.37 KiB | 2.00 KiB/s, done.

D:\HPe Documents>CD..

D:\>cd..

D:\>C:

C:\>cd "Documents and Settings"

C:\Documents and Settings>cd..

C:\>cd Users

C:\Users>cd user

C:\Users\user>cd Downloads

C:\Users\user\Downloads>cd Hybrid\_Maven\_Selenium

C:\Users\user\Downloads\Hybrid\_Maven\_Selenium>cd Hybrid\_Maven\_Selenium

C:\Users\user\Downloads\Hybrid\_Maven\_Selenium\Hybrid\_Maven\_Selenium>git init

Initialized empty Git repository in C:/Users/user/Downloads/Hybrid\_Maven\_Selenium/Hybrid\_Maven\_Selenium/.git/

C:\Users\user\Downloads\Hybrid\_Maven\_Selenium\Hybrid\_Maven\_Selenium>git add \*

warning: LF will be replaced by CRLF in Reports/MyReport.html.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in src/main/java/com/gcr/config/StartBrowser.java.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in src/test/java/com/gcr/scripts/TC01.java.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in src/test/java/com/gcr/scripts/TC02.java.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in test-output/Default suite/Default test.html.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in test-output/Default suite/Default test.xml.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in test-output/emailable-report.html.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in test-output/index.html.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in test-output/junitreports/TEST-com.gcr.config.StartBrowser.xml.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in test-output/junitreports/TEST-com.gcr.scripts.TC01.xml.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in test-output/junitreports/TEST-com.gcr.scripts.TC02.xml.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in test-output/old/Default suite/classes.html.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in test-output/old/Default suite/index.html.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in test-output/old/Default suite/main.html.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in test-output/old/Default suite/methods-alphabetical.html.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in test-output/old/Default suite/methods-not-run.html.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in test-output/old/Default suite/methods.html.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in test-output/old/Default suite/toc.html.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in test-output/old/index.html.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in test-output/testng-results.xml.

The file will have its original line endings in your working directory

C:\Users\user\Downloads\Hybrid\_Maven\_Selenium\Hybrid\_Maven\_Selenium>git commit -m "First Commit to Git"

[master (root-commit) 96cba94] First Commit to Git

57 files changed, 2449 insertions(+)

create mode 100644 .classpath

create mode 100644 .project

create mode 100644 .settings/org.eclipse.core.resources.prefs

create mode 100644 .settings/org.eclipse.jdt.core.prefs

create mode 100644 .settings/org.eclipse.m2e.core.prefs

create mode 100644 Reports/MyReport.html

create mode 100644 TestData/Data.xlsx

create mode 100644 pom.xml

create mode 100644 src/main/java/com/gcr/config/StartBrowser.java

create mode 100644 src/main/java/com/gcr/wdcmds/ActionDriver.java

create mode 100644 src/test/java/com/gcr/or/HomePage.java

create mode 100644 src/test/java/com/gcr/or/LoginPage.java

create mode 100644 src/test/java/com/gcr/reuse/CommonFunctions.java

create mode 100644 src/test/java/com/gcr/scripts/TC01.java

create mode 100644 src/test/java/com/gcr/scripts/TC02.java

create mode 100644 target/classes/META-INF/MANIFEST.MF

create mode 100644 target/classes/META-INF/maven/GCReddy/Hybrid\_Maven\_Selenium/pom.properties

create mode 100644 target/classes/META-INF/maven/GCReddy/Hybrid\_Maven\_Selenium/pom.xml

create mode 100644 target/classes/com/gcr/config/StartBrowser.class

create mode 100644 target/classes/com/gcr/wdcmds/ActionDriver.class

create mode 100644 target/test-classes/com/gcr/or/HomePage.class

create mode 100644 target/test-classes/com/gcr/or/LoginPage.class

create mode 100644 target/test-classes/com/gcr/reuse/CommonFunctions.class

create mode 100644 target/test-classes/com/gcr/scripts/TC01.class

create mode 100644 target/test-classes/com/gcr/scripts/TC02.class

create mode 100644 test-output/Default suite/Default test.html

create mode 100644 test-output/Default suite/Default test.xml

create mode 100644 test-output/Default suite/testng-failed.xml

create mode 100644 test-output/bullet\_point.png

create mode 100644 test-output/collapseall.gif

create mode 100644 test-output/emailable-report.html

create mode 100644 test-output/failed.png

create mode 100644 test-output/index.html

create mode 100644 test-output/jquery-3.4.1.min.js

create mode 100644 test-output/junitreports/TEST-com.gcr.config.StartBrowser.xml

create mode 100644 test-output/junitreports/TEST-com.gcr.scripts.TC01.xml

create mode 100644 test-output/junitreports/TEST-com.gcr.scripts.TC02.xml

create mode 100644 test-output/navigator-bullet.png

create mode 100644 test-output/old/Default suite/Default test.properties

create mode 100644 test-output/old/Default suite/classes.html

create mode 100644 test-output/old/Default suite/groups.html

create mode 100644 test-output/old/Default suite/index.html

create mode 100644 test-output/old/Default suite/main.html

create mode 100644 test-output/old/Default suite/methods-alphabetical.html

create mode 100644 test-output/old/Default suite/methods-not-run.html

create mode 100644 test-output/old/Default suite/methods.html

create mode 100644 test-output/old/Default suite/reporter-output.html

create mode 100644 test-output/old/Default suite/testng.xml.html

create mode 100644 test-output/old/Default suite/toc.html

create mode 100644 test-output/old/index.html

create mode 100644 test-output/passed.png

create mode 100644 test-output/skipped.png

create mode 100644 test-output/testng-failed.xml

create mode 100644 test-output/testng-reports.css

create mode 100644 test-output/testng-reports.js

create mode 100644 test-output/testng-results.xml

create mode 100644 test-output/testng.css

C:\Users\user\Downloads\Hybrid\_Maven\_Selenium\Hybrid\_Maven\_Selenium>git remote add origin https://github.com/pkinagi/QA.git

C:\Users\user\Downloads\Hybrid\_Maven\_Selenium\Hybrid\_Maven\_Selenium>git push origin master

Logon failed, use ctrl+c to cancel basic credential prompt.

Username for 'https://github.com': pkinagi@gmail.com

Password for 'https://pkinagi@gmail.com@github.com':

Enumerating objects: 95, done.

Counting objects: 100% (95/95), done.

Delta compression using up to 4 threads

Compressing objects: 100% (73/73), done.

Writing objects: 100% (95/95), 176.03 KiB | 4.51 MiB/s, done.

Total 95 (delta 9), reused 0 (delta 0), pack-reused 0

remote: Resolving deltas: 100% (9/9), done.

To https://github.com/pkinagi/QA.git

\* [new branch] master -> master

C:\Users\user\Downloads\Hybrid\_Maven\_Selenium\Hybrid\_Maven\_Selenium>cd..

C:\Users\user\Downloads\Hybrid\_Maven\_Selenium>cd..

C:\Users\user\Downloads>cd..

C:\Users\user>cd..

C:\Users>cd.

C:\Users>

C:\Users>cd..

C:\>D:

D:\>git clone https://github.com/pkinagi/QA.git

Cloning into 'QA'...

remote: Enumerating objects: 95, done.

remote: Counting objects: 100% (95/95), done.

remote: Compressing objects: 100% (64/64), done.

remote: Total 95 (delta 9), reused 95 (delta 9), pack-reused 0

Unpacking objects: 100% (95/95), 176.01 KiB | 59.00 KiB/s, done.

D:\>git status

fatal: not a git repository (or any of the parent directories): .git

D:\>cd QA

D:\QA>git status

On branch master

Your branch is up to date with 'origin/master'.

Changes not staged for commit:

(use "git add <file>..." to update what will be committed)

(use "git restore <file>..." to discard changes in working directory)

modified: .classpath

Untracked files:

(use "git add <file>..." to include in what will be committed)

src/test/java/com/gcr/scripts/SSDLaunch.java

no changes added to commit (use "git add" and/or "git commit -a")

D:\QA>git add src/test/java/com/gcr/scripts/SSDLaunch.java

D:\QA>git commit -m "New File added for Browser Launch"

[master 097ed7e] New File added for Browser Launch

1 file changed, 12 insertions(+)

create mode 100644 src/test/java/com/gcr/scripts/SSDLaunch.java

D:\QA>git push origin master

Logon failed, use ctrl+c to cancel basic credential prompt.

Username for 'https://github.com': pkinagi@gmail.com

Password for 'https://pkinagi@gmail.@github.com':

remote: Invalid username or password.

fatal: Authentication failed for 'https://github.com/pkinagi/QA.git/'

D:\QA>git push origin master

Logon failed, use ctrl+c to cancel basic credential prompt.

Username for 'https://github.com': pkinagi@gmail.com

Password for 'https://pkinagi@gmail.com@github.com':

Enumerating objects: 16, done.

Counting objects: 100% (16/16), done.

Delta compression using up to 4 threads

Compressing objects: 100% (6/6), done.

Writing objects: 100% (9/9), 690 bytes | 690.00 KiB/s, done.

Total 9 (delta 2), reused 0 (delta 0), pack-reused 0

remote: Resolving deltas: 100% (2/2), completed with 2 local objects.

To https://github.com/pkinagi/QA.git

96cba94..097ed7e master -> master

D:\QA>git status

On branch master

Your branch is up to date with 'origin/master'.

Changes not staged for commit:

(use "git add <file>..." to update what will be committed)

(use "git restore <file>..." to discard changes in working directory)

modified: .classpath

Untracked files:

(use "git add <file>..." to include in what will be committed)

src/test/java/com/gcr/scripts/Browser.java

no changes added to commit (use "git add" and/or "git commit -a")

D:\QA>git add src/test/java/com/gcr/scripts/Browser.java

D:\QA>git commit -m "Added new file For Browser launch"

[master 493c329] Added new file For Browser launch

1 file changed, 17 insertions(+)

create mode 100644 src/test/java/com/gcr/scripts/Browser.java

D:\QA>git push origin master

Logon failed, use ctrl+c to cancel basic credential prompt.

Username for 'https://github.com': pkinagi@gmail.com

Password for 'https://pkinagi@gmail.@github.com':

remote: Invalid username or password.

fatal: Authentication failed for 'https://github.com/pkinagi/QA.git/'

D:\QA>git push origin master

Logon failed, use ctrl+c to cancel basic credential prompt.

Username for 'https://github.com': pkinagi@gmail.com

Password for 'https://pkinagi@gmail.com@github.com':

Enumerating objects: 16, done.

Counting objects: 100% (16/16), done.

Delta compression using up to 4 threads

Compressing objects: 100% (6/6), done.

Writing objects: 100% (9/9), 922 bytes | 922.00 KiB/s, done.

Total 9 (delta 2), reused 0 (delta 0), pack-reused 0

remote: Resolving deltas: 100% (2/2), completed with 2 local objects.

To https://github.com/pkinagi/QA.git

097ed7e..493c329 master -> master

D:\QA>git checkout -b develop

Switched to a new branch 'develop'

D:\QA>git status

On branch develop

Changes not staged for commit:

(use "git add <file>..." to update what will be committed)

(use "git restore <file>..." to discard changes in working directory)

modified: .classpath

modified: src/test/java/com/gcr/scripts/Browser.java

no changes added to commit (use "git add" and/or "git commit -a")

D:\QA>git add src/test/java/com/gcr/scripts/Browser.java

D:\QA>git commit -m "Few lines add to the file"

[develop 30b2b56] Few lines add to the file

1 file changed, 2 insertions(+)

D:\QA>git branch

\* develop

master

D:\QA>git push origin develop

Logon failed, use ctrl+c to cancel basic credential prompt.

Username for 'https://github.com': pkinagi@gmail.com

Password for 'https://pkinagi@gmail.com@github.com':

Enumerating objects: 17, done.

Counting objects: 100% (17/17), done.

Delta compression using up to 4 threads

Compressing objects: 100% (6/6), done.

Writing objects: 100% (9/9), 667 bytes | 667.00 KiB/s, done.

Total 9 (delta 4), reused 0 (delta 0), pack-reused 0

remote: Resolving deltas: 100% (4/4), completed with 4 local objects.

remote:

remote: Create a pull request for 'develop' on GitHub by visiting:

remote: https://github.com/pkinagi/QA/pull/new/develop

remote:

To https://github.com/pkinagi/QA.git

\* [new branch] develop -> develop

D:\QA>

Chrome Options and Desired Capabilities are the class.

[--headless] 🡪 Executing the testcase without opening the browser.

[--incognito] 🡪 Executing the testcase in the Cognito browser.

[--add

//mvn test

Creating the Options to select Browser Type and URL in Jenkins Console

Database Testing

Server

Database

Table

Record

Using the SQL Query, we can extract the data from the Database.

Data Manipulation Language (DML)

Data Control Language (DCL)

Data Definition Language (DDL)

Constraint

Create

Insert: -

Alter: - Alter table “tablename “add newtablename ( To Change Table Schema Structure) Add/modify/Delete

Update (Update the data inside the database tablename)

Describe Database Name: - Which represents the Schema of the Table.

Drop/Delete the Column

#Creating Data Base;

create database QADBTesting;

use QADbTesting;

use QADBTesting

create table EmployeeInfo(Name varchar(100), Id int, Location varchar(50), Age int, JoiningDate Date);

use QADbTesting

describe EmployeeInfo

insert into EmployeeInfo values ('Prashant',4136, 'Bangalore', 33, '2021-07-30');

insert into EmployeeInfo values ('Sangeeta',4136, 'Bangalore', 29, '2016-12-26');

insert into EmployeeInfo values ('Girish.M',2008, 'Bangalore', 38, '2021-03-01');

insert into EmployeeInfo values ('Anand',2020, 'Hyderabad', 31, '2020-09-20');

select name, location from EmployeeInfo where location = 'Bangalore';

Alter table EmployeeInfo add Gender varchar(20);

Alter table EmployeeInfo modify Gender varchar(30);

describe employeeinfo

Alter table employeeinfo drop gender;

Alter table employeeinfo add gender varchar(30);

update EmployeeInfo

set Gender='Female'

where Name='Sangeeta';

Select name from employeeInfo;

select distinct name from employeeinfo;

select \* from EmployeeInfo;