**DevOps lab 5.1: Jenkins to Set Up Projects and Create Pipeline**

**Step 1**

Go to Compute Engine and VM Instances. Start the VM if it isn’t running, and connect using SSH.

Run Jenkins container if it’s stopped. Follow instructions from a previous lab to do this.

**Step**

On your terminal type:

mkdir Hello

cd Hello

nano Hello.java

Type the following code:

public class Hello{

public static void main(String[] args){

for (int i=1;i<=20;i++){

System.out.println("Hello World From the DevOps..." + i);

}

}

}

Save and close the file.

**Step 3**

Start a browser on your local machine and enter the URL x.x.x.x:8080, replacing x.x.x.x with the external IP address of your virtual machine.

You will see *Jenkins Login* screen. Enter user ID and password and hit *Continue*.

**Step 4**

Select *create new jobs*.  
Enter the name *HelloWorld*.  
Select *Freestyle project*.  
Hit *OK*.

Under the Build Step select “Execute shell” and type:

cd /home/student/Hello

javac Hello.java

java Hello

Save and close.

**Step 4**

Click on the Jenkins project HelloWorld, and click on Build Now.

Click on last build history, and click on Console Output.

**Step 5**

Repeat the steps below three times for the Jenkins projects *SampleBuildJob, SampleDeployJob, and SampleTestJob*

Select *create new jobs*.  
Enter the name of the job: *SampleBuildJob*Select *Freestyle project*.  
Hit *OK*.

Under Build Step, select “Execute shell” and type instructions.

date

cd /home/student/Hello

javac Hello.java

echo “Build job successfull!!!”

Save and close.

**Step 6**

Select *create new jobs*.  
Enter the name of the job: *SampleDeployJob*  
Select *Freestyle project*.  
Hit *OK*.

Under Build Triggers, select Build after other projects are built and type instructions.

samplebuildjob

Under the Build Step, select “Execute shell” and type instructions.

date

cd /home/student/Hello

java Hello

echo “Deploy job successful!!!”

Save and close.

**Step 7**

Select *create new jobs*.  
Enter the name of the job: *SampleTestJob*  
Select *Freestyle project*.  
Hit *OK*.

Under Build Triggers, select Build after other projects are built and type instructions.

sampledeployjob

Under the Build Step, select “Execute shell” and type instructions.

date

cd /home/student/Hello

java Hello

echo “Test job successful!!!”

Save and close.

**Step 8**

Click on the Jenkins project *samplebuildjob,* and click on Build Now.

Click on last build history, and click on Console Output.

You can also see that by triggering samplebuildjob, the other two jobs—*sampledeployjob* and *sampletestjob*—are triggered in the pipeline.