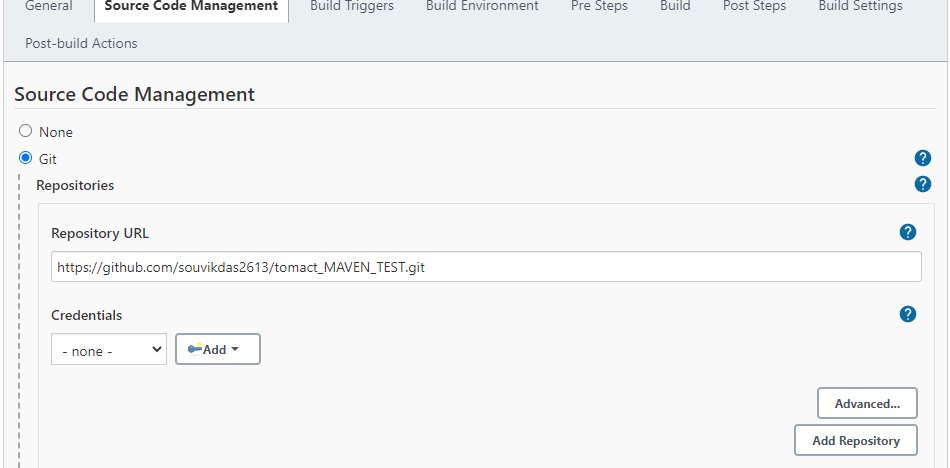
**Python project execution by using Jenkins “freestyle Project”**

1. Click on “New Item”
2. Select “Freestyle Project” and enter a name -> click on “OK”
3. Under “Source Code Management” Section -> select “Git”

****

1. under “Build” section -> select “execute shell”

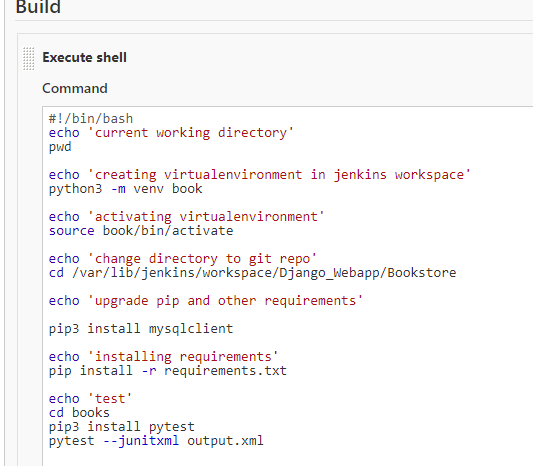
If you get this error “OSError: mysql\_config not found”

Then go to ec2 instance run below commad

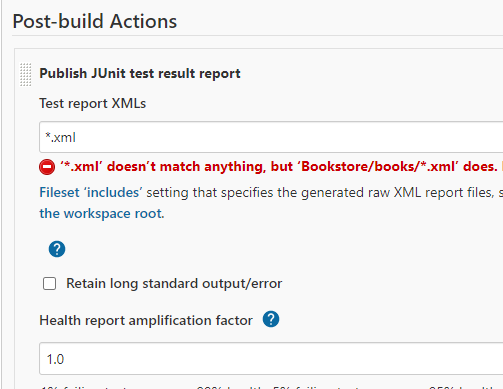
“sudo yum install mysql-devel gcc gcc-devel python3-devel”

Note:

If you get any error while installing requirements then connect to developer.

****

1. Under “Post Build Actions”

****

Here we stored test reports in .xml file.

Before pytest --junit-xml we need to change the directory to where our test case file there.

If you get pytest command not found error then “Pip3 install pytest”

**Python Project**

1. Launch an “Ubuntu instance”
2. Login into instance
3. Installed java and Jenkins.

**Java Installation:**

sudo apt update

(sudo apt search openjdk) optional

sudo apt install openjdk-11-jdk

java -version

**Configure the Java Home Location: (optional)**

**readlink -f $(which java)**

JAVA\_HOME=/usr/lib/jvm/java-8-openjdk-amd64/jre/bin/java

echo $JAVA\_HOME

export JAVA\_HOME

PATH=$PATH:$JAVA\_HOME

**Jenkins Installation:**

1. Go inside the website: <https://www.jenkins.io/doc/book/installing/linux/#debianubuntu>
2. wget -q -O - https://pkg.jenkins.io/debian-stable/jenkins.io.key | sudo apt-key add -
3. sudo sh -c 'echo deb https://pkg.jenkins.io/debian-stable binary/ > \

/etc/apt/sources.list.d/jenkins.list'

1. sudo apt-get update
2. sudo apt-get install jenkins

**Start the Jenkins:**

sudo systemctl start jenkins

sudo systemctl status jenkins

Adjusting Firewall: (optional)

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sudo ufw allow 8080

sudo ufw status

**note:**

ubuntu@ip-10-10-11-150:~$ sudo ufw status

Status: inactive

ubuntu@ip-10-10-11-150:~$ sudo ufw allow OpenSSH

Rules updated

Rules updated (v6)

ubuntu@ip-10-10-11-150:~$ sudo ufw enable

Command may disrupt existing ssh connections. Proceed with operation (y|n)? y

Firewall is active and enabled on system startup

ubuntu@ip-10-10-11-150:~$ sudo ufw status

Status: active

To Action From

-- ------ ----

8080 ALLOW Anywhere

OpenSSH ALLOW Anywhere

8080 (v6) ALLOW Anywhere (v6)

OpenSSH (v6) ALLOW Anywhere (v6)

**For Password:**

**-------------------**

sudo cat /var/lib/jenkins/secrets/initialAdminPassword

1. **Installed python on instance**

sudo apt update

sudo apt upgrade -y

**condition is** : don't switch to super user "sudo su".

check present working directory is "/home/ubuntu" by using "pwd"

sudo apt install build-essential libssl-dev zlib1g-dev libncurses5-dev libncursesw5-dev libreadline-dev libsqlite3-dev libgdbm-dev libdb5.3-dev libbz2-dev libexpat1-dev liblzma-dev tk-dev libffi-dev

cd /tmp

wget https://www.python.org/ftp/python/3.6.5/Python-3.6.5.tgz

sudo tar xzf Python-3.6.5.tgz

cd Python-3.6.5

sudo ./configure --enable-optimizations

sudo make altinstall

check version:

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ubuntu@ip-10-10-11-32:~$ python3 --version

Python 3.8.5

ubuntu@ip-10-10-11-32:~$ python3.6 --version

Python 3.6.5

1. **Install mysql**

sudo apt update

sudo apt upgrade

sudo apt install mysql-server

press y

sudo service mysql status

sudo mysql\_secure\_installation

press Y

enter 2

press y,y,y,y

sudo mysql

ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql\_native\_password BY 'Adapal@303';

FLUSH PRIVILEGES;

exit

sudo service mysql restart

mysql -u root -p

enter password: Adapal@303

create Database:

----------------------

mysql> create database bookstore;

Query OK, 1 row affected (0.01 sec)

sudo service mysql restart

Note:

sudo apt-get install python3-dev default-libmysqlclient-dev build-essential

pip3 install mysqlclient

1. Jenkins bash Script:

#!/bin/bash

echo "prerequirements"

pip3 install --upgrade pip

pip3 install mysqlclient

echo " environmental setup"

python3.6 -m venv books

source books/bin/activate

echo "installing requirements"

cd /var/lib/jenkins/workspace/python/Bookstore

pip3 install -r requirements.txt

echo "unit test"

pip3 install pytest

export DJANGO\_SETTINGS\_MODULE=Bookstore.settings

pytest testcase --junitxml result.xml

**Note:** To see builds in EC2 instance go to below directory

cd /var/lib/jenkins/jobs/python/builds/

**Note: sudo apt install python3-pip**

python -m pytest --verbose --junit-xml test-reports/results.xml

**echo " environmental setup"**

**python3.6 -m venv books**

**source books/bin/activate**

**echo "installing requirements"**

**pip3 install mysqlclient**

**cd /var/lib/jenkins/workspace/project/Bookstore**

**pip3 install -r requirements.txt**

**echo "unit test"**

**pip install --upgrade pip**

**pip3 install pytest**

**python3.6 -m pytest testcase --junit-xml test-reports/results.xml**

**python3.6 -m pytest testcase** --verbose **--junit-xml test-reports/results.xml**

**export DJANGO\_SETTINGS\_MODULE=Bookstore.settings**

**pytest testcase/test\_views.py --junit-xml test-reports/results.xml**