Create docker image and run it

```
>>mkdir test1
>>cd test1
>>sudo nano first.py
>>sudo nano Dockerfile

  =>FROM python
     RUN mkdir /file2       # create new dir fil2
     COPY *.py /file2/      # copy all you .py files into dir file2
     CMD [ "python3","/file2/first.py" ]

>>sudo docker build -t myimg1:v1 .
>>sudo docker run -ti myimg1:v1
```

Create httpd container

```
>> mkdir web-data
>> sudo nano index.html
  =>(any text)
>> sudo docker run -v ~/web-data/:/usr/local/apache2/htdocs/ -p 9010:80 -d --name web11
httpd
```

Create image and push it on dockerhub

```
>> sudo systemctl start docker
>> mkdir file1
>> cd file1
>> sudo nano calc.py
>> sudo python calc.py
     (write your code)
>> cd
>> sudo nano Dockerfile
     FROM python
     RUN mkdir /file2              # create new dir fil2
     COPY *.py /file2/             # copy all you .py files into dir file2
     CMD [ "python3","/file2/calc.py" ]
>> sudo docker run --rm -ti myimg:v1
    login on docker hub
    Create a repo =>demo1
>> sudo docker tag myimg:v1 git-username/git-repo-name:v1    # rename mying=> demo1
>> sudo docker login
>> sudo docker push git-username/git-repo-name:v1

   refresh docker hub web , img should  be their
```

Displating message on web

>> mkdir file3
>> cd file3
>> sudo nano index.html
    => Hello their !

First method -

>> sudo nano Dockerfile
   => FROM httpd
       COPY index.html /usr/local/apache2/htdocs/
>> sudo docker build -t myimg2:v1 .
>> sudo docker run –rm -p 9001:80 -d myimg:v1

Second method -

>> sudo docker run -v ~/file3/:/usr/local/apache2/htdocs/ -p 9001:80 -d --name web2 httpd
    Now go to browser
    type-
    localhost:9001

Local Git Repository

>> mkdir localgit
>> sudo git init
>> sudo git config --global user.email "email@email.com" # only req if you are using local git for first time
>> git config --global user.name "name" # only req if you are using local git for first time
>> sudo nano file1
>> sudonano file2
>> sudo git add -A
>> sudo git commit -m"Any message"

Local Git -Branch simple calculator

>> mkdir gitbranches
>> cd gitbranches
>> sudo git init

```
>> sudo nano temp1
   => anything
>> sudo git add -A
>> sudo git commit -m"balnk commit"

>> sudo git branch add
>> sudo git checkout add
>> sudo nano add1.py
     =>def addition(a,b):
              print("additon : ",a+b)
>> sudo git add -A
>> sudo git commit -m"add"

>> sudo git checkout master
>> sudo git branch sub
>> sudo git checkout sub
>> sudo nano sub1.py
     => def subtraction(a,b):
              print("sub : ",a-b)
>> sudo git add -A
>> sudo git commit -m"sub"
>> sudo git checkout master

>> sudo nano calc.py
     =>  from add import *
         from sub import *
         a=int(input("enter firt no"))
         b=int(input("enter second no"))
         addition(a,b)
         subtract(a,b)

>> sudo git merge add
>> sudo git merge sub
>> sudo python3 calc.py

output -
enter no110
enter no22
additon :  12
sub :  8
```

Push to remote git repo

(Continuing previous code)

```
>>  cd gitbranches
>>  sudo git remote add origin https://github.com/your repo id.git
>> sudo git branch -m master main
>> sudo git push -u origin master
   =>username :
   => password : (give your token as password)
```

Done !

Pull from remote git -modify-push to remote git

>>mkdir new
>>cd new
>>sudo git init
>>sudo git clone https://github.com/*your repo id*.git
>>ls
=>DevOps_Demo1 (git repo name)
>>cd DevOps_Demo1/
>>sudo nano test1
>>sudo git add -A
>>sudo git commit -m"first c"
>>sudo git branch -m master main
>>sudo git push -u origin main
    =>username :
    => password : (give your token as password)

Docker +Git
Question -
1.creat remote repo
2. clone it in remote repo
3. create .py file
4. build docker file for this .py file
5. commit locally
5. push everything to remote repo
6. create another dir
7. clone that remote repo in it
8. build image from that docker file and run it

>> mkdir gitdoc
>> cd gitdoc
>> sudo git init
>> sudo git clone https://github.com/*your repo id*.git
>>ls
  =>DevOps_Demo2
>>cd DevOps_Demo2/
>>sudo nano print.py
    =>print(“this was made in local repo”)
>>sudo python3 print.py
    =>this was made in local repo
>>sudo nano Dockerfile
   =>FROM python
     RUN mkdir /file2   # create new dir fil2
     COPY *.py /file2/   # copy all you .py files into dir file2
     CMD ["python3","/file2/print.py"]

>>sudo docker build -t myimg:v1 .

>>sudo git add -A
>>sudo git commit -m"first commit"
>>sudo git push -u origin main
=>username :
=> password : (give your token as password)

(making new dir)
>>cd
>> mkdir testdir
>>sudo git init
>>sudo git clone https://github.com/*your repo id*.git
>>ls
=> DevOps_Demo2 (remote repo name)
>>cd DevOps_Demo2
>>ls
=>Dockerfile print.py README.md
>>sudo nano Dockerfile
>>sudo docker build -t myimg:v1 .
>>sudo docker run -ti myimg:v1
output =
this was made in local repo

Done !