**PYTHON SCRIPTS**

**### To Add a User in Linux:**

* Open your git-bash: vim useradd.py

#!/user/bin/python3

import os  
  
userlist = ["alpha", "beta", "gamma"]  
  
print("Adding users to system")  
print("#################################################")  
  
# Loop to Add Users from userlist  
for user in userlist:  
 exitcode = os.system("id ()".format(user) )  
 if exitcode != 0:  
 print("User {} does not exist. Adding it....".format(user))  
 print("#################################################")  
 print()  
 os.system("useradd {}".format(user))  
 else:  
 print("User already exist. Skipping it....")  
 print("#################################################")  
 print()

* chmod +x useradd.py
* ./useradd.py

**### To Add a group in Linux:**

#!/user/bin/python3

import os  
  
userlist = ["alpha", "beta", "gamma"]  
  
print("Adding users to system")  
print("#################################################")  
  
# Loop to Add Users from userlist  
for user in userlist:  
 exitcode = os.system("id ()".format(user) )  
 if exitcode != 0:  
 print("User {} does not exist. Adding it....".format(user))  
 print("#################################################")  
 print()  
 os.system("useradd {}".format(user))  
 else:  
 print("User already exist. Skipping it....")  
 print("#################################################")  
 print()  
  
# Condition to check if group exists or not add if it does not exist.  
exitcode = os.system("grep science /etc/group")  
if exitcode != 0:  
 print("Group science does not exist. Adding it....")  
 print("#################################################")  
 print()  
 os.system("groupadd science")  
else:  
 print("Group already exist. Adding it....")  
 print("#################################################")  
 print()

**### To Add all the three users into the group in Linux:**

#!/user/bin/python3

import os  
  
userlist = ["alpha", "beta", "gamma"]  
  
print("Adding users to system")  
print("#################################################")  
  
# Loop to Add Users from userlist  
for user in userlist:  
 exitcode = os.system("id ()".format(user) )  
 if exitcode != 0:  
 print("User {} does not exist. Adding it....".format(user))  
 print("#################################################")  
 print()  
 os.system("useradd {}".format(user))  
 else:  
 print("User already exist. Skipping it....")  
 print("#################################################")  
 print()  
  
# Condition to check if group exists or not add if it does not exist.  
exitcode = os.system("grep science /etc/group")  
if exitcode != 0:  
 print("Group science does not exist. Adding it....")  
 print("#################################################")  
 print()  
 os.system("groupadd science")  
else:  
 print("Group already exist. Adding it....")  
 print("#################################################")  
 print()  
   
# To Add all the three Users into the group Science..  
for user in userlist:  
 print("Adding user {} in the science group".format(user))  
 print("##################################################")  
 print()  
 os.system("usermod -G science {}".format(user))

**### To create a Directory in Linux:**

#!/user/bin/python3

import os  
  
userlist = ["alpha", "beta", "gamma"]  
  
print("Adding users to system")  
print("#################################################")  
  
# Loop to Add Users from userlist  
for user in userlist:  
 exitcode = os.system("id ()".format(user) )  
 if exitcode != 0:  
 print("User {} does not exist. Adding it....".format(user))  
 print("#################################################")  
 print()  
 os.system("useradd {}".format(user))  
 else:  
 print("User already exist. Skipping it....")  
 print("#################################################")  
 print()  
  
# Condition to check if group exists or not add if it does not exist.  
exitcode = os.system("grep science /etc/group")  
if exitcode != 0:  
 print("Group science does not exist. Adding it....")  
 print("#################################################")  
 print()  
 os.system("groupadd science")  
else:  
 print("Group already exist. Adding it....")  
 print("#################################################")  
 print()  
  
# To Add all the three Users into the group Science..  
for user in userlist:  
 print("Adding user {} in the science group".format(user))  
 print("##################################################")  
 print()  
 os.system("usermod -G science {}".format(user))  
  
# To create a Directory in Linux  
print("Adding directory - science dir")  
print("##################################################")  
print()  
  
if os.path.isdir("/opt/science\_dir"):  
 print("Directory already exist, skipping it")  
else:  
 os.mkdir("/opt/science dir")

**### To assign ownership and permission to a Directory in Linux**

#!/user/bin/python3

import os  
  
userlist = ["alpha", "beta", "gamma"]  
  
print("Adding users to system")  
print("#################################################")  
  
# Loop to Add Users from userlist  
for user in userlist:  
 exitcode = os.system("id ()".format(user) )  
 if exitcode != 0:  
 print("User {} does not exist. Adding it....".format(user))  
 print("#################################################")  
 print()  
 os.system("useradd {}".format(user))  
 else:  
 print("User already exist. Skipping it....")  
 print("#################################################")  
 print()  
  
# Condition to check if group exists or not add if it does not exist.  
exitcode = os.system("grep science /etc/group")  
if exitcode != 0:  
 print("Group science does not exist. Adding it....")  
 print("#################################################")  
 print()  
 os.system("groupadd science")  
else:  
 print("Group already exist. Adding it....")  
 print("#################################################")  
 print()  
  
# To Add all the three Users into the group Science..  
for user in userlist:  
 print("Adding user {} in the science group".format(user))  
 print("##################################################")  
 print()  
 os.system("usermod -G science {}".format(user))  
  
# To create a Directory in Linux  
print("Adding directory - science dir")  
print("##################################################")  
print()  
  
if os.path.isdir("/opt/science\_dir"):  
 print("Directory already exist, skipping it")  
else:  
 os.mkdir("/opt/science dir")  
   
# To assign ownership and permission to a Directory in Linux  
print("Assigning permission and ownership to the directory.")  
print("##################################################")  
print()  
os.system("chown :science /opt/science\_dir")  
   
os.system("chmod 770 /opt/science\_dir")