# Solution M2 (@v.zapryanov)

### Virtual Machine #1

**CHECK:** https:\/\/courses.zahariev.pro\/check.php?20211209212151GNjw7lA2fQ

Used commands:  
  
**sudo useradd developer**  
*Adding new user with username “developer”*

**sudo usermod -c "ProjectX Developer" developer**  
*Set the full name of the user “developer”*

**sudo passwd developer***Set the password (Password2) for the user “developer”. Same commands for the second user – “manager”*

**sudo groupadd -g 3000 projectxyz**  
*Creating new group with ID 3000 and name “projectxyz”*

**sudo usermod -aG projectxyz developer  
sudo usermod -aG projectxyz manager**  
*Adding “developer” and “manager” to the group “projectxyz”*

**nano /etc/group**  
*Checking for the group name, ID and members. (I used “sudo yum install nano”)*

**mkdir shared shared/projects**  
*Creating new folder “shared” and subfolder in it “projects”*

**mkdir -p shared/projects/projectXYZ/Stage{1..3}/{DOCUMENTS,BUDGET}**  
*Creating 3 folders named Stage1, Stage2 and Stage3 with subfolders in each of it – DOCUMENTS and BUDGET***touch shared/projects/projectXYZ/Stage{1..3}/DOCUMENTS/document{1..5}.doc**  
*Creating 5 files in each DOCUMENTS’s Stage folder*

**touch shared/projects/projectXYZ/Stage{1..3}/BUDGET/readme\_{en,bg,de}.txt***Creating 3 different readme files in each BUDGET folder*

**sudo chown -R manager:projectxyz shared/projects/projectXYZ/***Changing owner ship of projectXYZ and its subfolders (with -R) to manager and also changing group ownership of projecXYZ and its subfolders to group projectxyz*

**sudo chmod u+rwx,g+rwx,o-rwx shared/projects/projectXYZ/Stage{1..3}/DOCUMENTS/document{1..5}.doc  
sudo chmod u+rwx,g+rwx,o-rwx shared/projects/projectXYZ/Stage{1..3}/BUDGET/readme\_{en,bg,de}.txt***Change the permissions of the projectXYZ folder and all subfolders (not the files, just the folders) to be read, write and execute for the owner and the group and no permissions for everyone else.*

**sudo chmod g+s projectXYZ/  
sudo chmod g+s projectXYZ/Stage1  
sudo chmod g+s projectXYZ/Stage2  
sudo chmod g+s projectXYZ/Stage3  
sudo chmod g+s projectXYZ/Stage1/BUDGET   
etc., etc.***Adjusting the permissions of all folder so all new files made by either the developer or the manager user will be owned by the projectxyz group. I had to make it folder by folder because the commands like* **sudo chmod g+s projectXYZ/Stage{1..3}** didn’t worked.

**sudo chmod u+rw-x,g+rw-x,o-rwx projectXYZ/Stage{1..3}/DOCUMENTS/document{1..5}.doc  
sudo chmod u+rw-x,g+rw-x,o-rwx projectXYZ/Stage{1..3}/BUDGET/readme\_{en,bg,de}.txt**  
*Setting the permissions for all files under the above folder structure (projectXYZ) to read and write for the owner and the group and no permissions for everyone else*