# Solution M2: Working in the Console

One possible solution could be:

1. Create the users

[lsauser@almalinux ~]$ **sudo useradd -c "ProjectX Developer" developer**

[lsauser@almalinux ~]$ **sudo passwd developer**

[lsauser@almalinux ~]$ **sudo useradd -c "ProjectX Manager" manager**

[lsauser@almalinux ~]$ **sudo passwd manager**

1. Create the group

[lsauser@almalinux ~]$ **sudo groupadd -g 3000 projectxyz**

1. Join the users to the group

[lsauser@almalinux ~]$ **sudo usermod -a -G projectxyz developer**

[lsauser@almalinux ~]$ **sudo usermod -a -G projectxyz manager**

1. Create the parent set of folders

[lsauser@almalinux ~]$ **sudo mkdir -p /shared/projects/projectXYZ**

1. Create the nested set of folders

[lsauser@almalinux ~]$ **sudo mkdir -p /shared/projects/projectXYZ/Stage{1..3}/{DOCUMENTS,BUDGET}**

1. Create the **document\_X.doc** files

[lsauser@almalinux ~]$ **sudo touch /shared/projects/projectXYZ/Stage{1..3}/DOCUMENTS/document{1..5}.doc**

1. Create the **readme\_XX.txt** files

[lsauser@almalinux ~]$ **sudo touch /shared/projects/projectXYZ/Stage{1..3}/BUDGET/readme\_{en,bg,de}.txt**

1. Change the user owner of the folders and files

[lsauser@almalinux ~]$ **sudo chown -R manager /shared/projects/projectXYZ**

1. Change the group owner of the folders and files

[lsauser@almalinux ~]$ **sudo chgrp -R projectxyz /shared/projects/projectXYZ**

1. Change the permissions of the folders as requested

[lsauser@almalinux ~]$ **sudo chmod -R 770 /shared/projects/projectXYZ**

[lsauser@almalinux ~]$ **sudo chmod g+s /shared/projects/projectXYZ /shared/projects/projectXYZ/Stage{1..3} /shared/projects/projectXYZ/Stage{1..3}/{BUDGET,DOCUMENTS}**

1. Change the permissions of the files as requested

[lsauser@almalinux ~]$ **sudo chmod 660 /shared/projects/projectXYZ/Stage{1..3}/DOCUMENTS/document{1..5}.doc**

[lsauser@almalinux ~]$ **sudo chmod 660 /shared/projects/projectXYZ/Stage{1..3}/BUDGET/readme\_{en,bg,de}.txt**

*Notes:*

**Step 4**: It could be skipped, because the **projectXYZ** directory will be created on the next step if it doesn’t exist.

**Step 10**: Second part of this step can be implemented with the **find** command. Can you find how?

**Step 11**: If we don’t know that there are files only in the **BUDGET** and **DOCUMENT** folders, we must find another way to solve this. In fact, this can be implemented with the **find** command. Can you find how?

*Self-check Script Output:*

[lsauser@almalinux ~]$ **curl -s https://courses.zahariev.pro/m2.sh | sudo bash**

\* Working on RHEL-based machine

\* Testing for the developer and manager users ...

... PASS

\* Testing for the projectxyz group ...

... PASS

\* Testing for the projectxyz group members (developer and manager) ...

... PASS

\* Testing for the /shared/projects folder ...

... PASS

\* Testing for the projectXYZ hierarchy of folders ...

... PASS

\* Testing for the documentN.doc set of files ...

... PASS

\* Testing for the readme\_NN.txt set of files ...

... PASS

\* Testing for the user ownership of the projectXYZ folder and files ...

... PASS

\* Testing for the group ownership of the projectXYZ folder and files ...

... PASS

\* Testing for permissions of the folders ...

... PASS

\* Testing for permissions of the files ...

... PASS

{"message":"Your solution report is available here: https:\/\/courses.zahariev.pro\/check.php?2022012209273151J24nZKYt","status":true}