

1. Create file devops-file.txt
 2. Check current owner: ls -l devops-file.txt
 3. Change owner to tokyo (create user if needed)
 4. Change owner to berlin
 5. Verify the changes

```
ubuntu@ip-172-31-45-102:~$ touch devops-file.txt
ubuntu@ip-172-31-45-102:~$ ls -l devops-file.txt
-rw-rw-r-- 1 ubuntu ubuntu 0 Feb 9 18:28 devops-file.txt
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ sudo useradd tokyo
[ubuntu@ip-172-31-45-102:~$ useradd: tokyo: user 'tokyo' already exists
[ubuntu@ip-172-31-45-102:~$ sudo useradd tokyo1
[ubuntu@ip-172-31-45-102:~$ sudo useradd berlin
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ sudo chown tokyo1 devops-file.txt
[ubuntu@ip-172-31-45-102:~$ ls -l
.bash_logout          .bashrc          .cache/          .profile          .ssh/          .sudo_as_admin_successful  devops-file.txt
-rw-rw-r-- 1 tokyo1 ubuntu 0 Feb 9 18:28 devops-file.txt
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ sudo chown berlin devops-file.txt
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ ls -l devops-file.txt
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ ]
```

1. Create file team-notes.txt
 2. Check current group: ls -l team-notes.txt
 3. Create group: sudo groupadd heist-team
 4. Change file group to heist-team
 5. Verify the change

```
[ubuntu@ip-172-31-45-102:~]$ touch team-notes.txt
[ubuntu@ip-172-31-45-102:~]$ ls -l team-notes.txt
-rw-rw-r-- 1 ubuntu ubuntu 0 Feb  9 18:33 team-notes.txt
[ubuntu@ip-172-31-45-102:~]$ 
[ubuntu@ip-172-31-45-102:~]$ sudo groupadd heist-team
[ubuntu@ip-172-31-45-102:~]$ sudo chgrp heist-team team-notes.txt
[ubuntu@ip-172-31-45-102:~]$ 
[ubuntu@ip-172-31-45-102:~]$ ls -l team-notes.txt
-rw-rw-r-- 1 ubuntu heist-team 0 Feb  9 18:33 team-notes.txt
[ubuntu@ip-172-31-45-102:~]$ 
[ubuntu@ip-172-31-45-102:~]$ 
[ubuntu@ip-172-31-45-102:~]$ 
[ubuntu@ip-172-31-45-102:~]$ █
```

1. Create file `project-config.yaml`
 2. Change owner to `professor` AND group to `heist-team` (one command)
 3. Create directory `app-logs/`
 4. Change its owner to `berlin` and group to `heist-team`

```
[ubuntu@ip-172-31-45-102:~$ touch project-config.yaml
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ sudo useradd professor
useradd: user 'professor' already exists
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ sudo useradd prof
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ sudo chown prof:heist-team project-config.yaml
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ mkdir app-logs
[ubuntu@ip-172-31-45-102:~$ sudo chown berlin:heist-team app-logs
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ ls -ld app logs
ls: cannot access 'app': No such file or directory
ls: cannot access 'logs': No such file or directory
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ ls -ld app-logs
drwxrwxr-x 2 berlin heist-team 4096 Feb 10 15:45 app-logs
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ ]
```

1. Create users: tokyo, berlin, nairobi (if not already created)
2. Create groups: vault-team, tech-team
3. Create directory: bank-heist/
4. Create 3 files inside:

```
touch bank-heist/access-codes.txt
touch bank-heist/blueprints.pdf
touch bank-heist/escape-plan.txt
```

5. Set different ownership:
 - o `access-codes.txt` → owner: tokyo, group: vault-team
 - o `blueprints.pdf` → owner: berlin, group: tech-team
 - o `escape-plan.txt` → owner: nairobi, group: vault-team

```
ubuntu@ip-172-31-45-102:~$ mkdir -p heist-project/vault
mkdir -p heist-project/plans
touch heist-project/vault/gold.txt
[touch heist-project/plans/strategy.conf
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ sudo groupadd planners
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ sudo chown -R professor:planners heist-project
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ ls -lR heist-project
heist-project:
total 8
drwxrwxr-x 2 professor planners 4096 Feb 10 15:56 plans
drwxrwxr-x 2 professor planners 4096 Feb 10 15:56 vault

heist-project/plans:
total 0
-rw-rw-r-- 1 professor planners 0 Feb 10 15:56 strategy.conf

heist-project/vault:
total 0
-rw-rw-r-- 1 professor planners 0 Feb 10 15:56 gold.txt
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ ]
```

```
ubuntu@ip-172-31-45-102:~$ sudo useradd tokyo1
sudo useradd berlin2
[sudo useradd nairobi
useradd: user 'tokyo1' already exists
useradd: user 'nairobi' already exists
[ubuntu@ip-172-31-45-102:~$ 
ubuntu@ip-172-31-45-102:~$ 
ubuntu@ip-172-31-45-102:~$ sudo useradd tokyooo
sudo useradd berliii
sudo useradd nairobiii
[ubuntu@ip-172-31-45-102:~$ 
ubuntu@ip-172-31-45-102:~$ sudo groupadd vault-team
[sudo groupadd tech-team
[ubuntu@ip-172-31-45-102:~$ 
ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
ubuntu@ip-172-31-45-102:~$ mkdir bank-heist
touch bank-heist/access-codes.txt
touch bank-heist/blueprints.pdf
[touch bank-heist/escape-plan.txt
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
ubuntu@ip-172-31-45-102:~$ sudo chown tokyooo:vault-team bank-heist/access-codes.txt
sudo chown berliii:tech-team bank-heist/blueprints.pdf
[sudo chown nairobiii:vault-team bank-heist/escape-plan.txt
[ubuntu@ip-172-31-45-102:~$ 
ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ ls -l bank-heist
total 0
-rw-rw-r-- 1 tokyooo  vault-team 0 Feb 10 16:08 access-codes.txt
-rw-rw-r-- 1 berliii  tech-team 0 Feb 10 16:08 blueprints.pdf
-rw-rw-r-- 1 nairobiii vault-team 0 Feb 10 16:08 escape-plan.txt
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
[ubuntu@ip-172-31-45-102:~$ 
ubuntu@ip-172-31-45-102:~$ ]
```