

1. A QA tester is hired on contract for exactly one week to test something on your staging server. Following are the things you must provide him:
 1. An user account called "qa" with login access to your server, but you don't want to trust yourself or anyone else to remember to disable the account once the week is done.
 2. You want the system itself to revoke access after the agreed time.
2. You're monitoring the server and notice high CPU usage. On investigation, you find a background job running uncontrolled. You must:
 1. Find the process and kill it.
 2. Ensure it has been successfully killed. If not so, investigate further and try to kill it.
3. Two engineers (u1, u2) are collaborating in /srv/shared. They both need to write files, but neither should be able to delete the other's files.
 1. Create users u1 and u2 in your system.
 2. Set up /srv/shared so both users can create files.
 3. Enforce that only file owners can delete their files.
4. Imagine you're a system administrator tasked with monitoring the performance of several servers running GNU+Linux in a data center. To effectively track CPU usage, memory consumption, disk I/O, and network statistics. The node-exporter package is already downloaded for you at /home/ec2-user/node_exporter.tar.gz. Your goal is to place the binary in the right path, and create a systemd service to run it all the time.
5. You're working on a cloud-hosted VM and you find that your team is using a password to gain sudo access. Your goal is to allow users to elevate privileges with sudo without the root password and run any command. Ensure you only allow login via SSH only with a private key for that user.