**Project 17**

**Additional Resources**

In this lab you'll be a sysadmin who is setting up a shared directory on a server for collaboration between a set of users. You'll create the directory, setup the user accounts and group memberships, then create a test file from each user and inspect the results. You'll then modify the directory to force group ownership inheritance and then do a second set of test files and inspect what happened after the directory permission changes.

In the second task, you'll be creating another user with the system defaults and have that account try to join the collaboration directory, and then fix a series of permission and ownership issues to make her joining the group work properly. You'll then use a final special permission to ensure that while users can edit each other's files, no user can delete any file in the directory they don't own as the user owner.

**Red Hat Exam Requirements Covered:**

Create and configure set-GID directories for collaboration

Diagnose and correct file permission problems

**Step 1**:

Create and Configure set-GID Directories for Collaboration

1. Create a shared directory called **mad-linux** in root directory
2. Create groups called **devops** and **sysadmins**
3. Create 3 users (**user1** **user2** **user3** with password **school1**) and make sure **user1** and **user2** has **devops** and **sysadmin** as secondary groups while **user3** has sysadmins as secondary group
4. Update directory **mad-linux** owner as **root** and group as **sysadmin**. Also update permission to be 0770.
5. Login as each users and cd to /mad-linux directory. Create one file as each user and list all three files to verify their group.

NB: Please take a note

1. Fix the permissions so that all users can access each other’s files properly and any files or directories created should inherit devops group by default
2. Create more files to verify things work.

**Step 2**:

Diagnose and Correct File Permission Problems

1. Create another user **user4** with password **school1** and have them attempt to join the shared directory **mad-linux**.
2. Troubleshoot the issues that come up.
3. Modify the user account to allow participation in the group **devops**.
4. Change files located inside **mad-linux** directory permissions to allow group editing of each other's files.
5. Ensure that no user can delete files they do not own.