1. Within your RH Academy lab environment, log onto workstation as student, password = student
2. Several commands need to be run as root, so just switch to root with **su -** password = **redhat**
3. Run **pwd** to verify your path of working directory
4. Create a new directory on the root of the drive with **mkdir /myfolder**
5. Then run **cd /myfolder**
6. Create a file in myfolder with **touch testFile**
7. View username of the owner of the current login session by running **whoami**
8. View the file’s default/current permissions with **ls -l testFile**
9. Now, set write permissions to the group level, using symbolic mode, with **chmod g+w testFile**
10. Verify that the permissions were set with **ls -l testFile** (you could up-arrow the previous)
11. Remove read permissions for others, using symbolic mode, with **chmod o-r testFile**
12. Verify that the permissions were removed with **ls -l testFile**

|  |
| --- |
| **Take a screenshot of the output of the ls command, that user and group have rw, and others have nothing** |

1. Now, observe the difference between using **+** and **=** in chmod. Run **chmod g+x testFile**
2. Run **ls -l testFile**

|  |
| --- |
| **Take a screenshot of the output of the ls command, that group has gained x and kept rw** |

1. Run **chmod g=x testFile**
2. Run **ls -l testFile**

|  |
| --- |
| **Take a screenshot of the output of the ls command, that group kept x (would have gained if didn’t have) and lost unspecified ones (rw)** |

1. Assign, using symbolic mode, x to user (leave rw status alone), only rw to group, and only rw to others, by running: **chmod u+x,g=rw,o=rw testFile**
2. Run **ls -l testFile**

|  |
| --- |
| **Take a screenshot of the output of the ls command, that user has rwx, group has only rw, and others have only rw** |

1. Finally, using symbolic mode, remove x from user, and w from both group and others, by running:
2. **chmod u-x,go-w testFile** Run **ls -l testFile** to verify that the permissions are rw – r- -r- -

Graphical user interface, application

Description automatically generated

1. Create another file by running **touch newFile**
2. Use **ls -l newFile** to view the current permissions
3. Assign read, write, and execute to owner, and read and execute to group and others using Absolute mode with the following command **chmod 755 newFile**
4. Run **ls -l newFile** to verify the change in permissions
5. Move to the root’s home directory, create a new directory and give it full permissions to all by running:
   1. **cd ~**
   2. **mkdir NewDir**
   3. **chmod 777 NewDir**
6. Verify that rwx is assigned to all by running **ls -ld NewDir**
7. Now, use a file’s execute permissions. Start a script file using vim by running **vi MyScript**
8. **Esc** then **i**  to change to insert mode (look for the word INSERT at the bottom left)
9. Enter this script:

Text

Description automatically generated

1. **Esc** then **:wq Enter** to write and quit
2. Run **ls -l MyScript** to view the default permissions. Notice that execute is not a default permission
3. Attempt to run this script by running **./MyScript**

|  |
| --- |
| **Take a screenshot of the output, showing that Permission is denied.** |

1. Now, change the permissions so that user, group and others can execute the script by running:
   1. **chmod a+x MyScript**
2. Run **ls -l MyScript** to verify that everyone has x permission
3. Run the script again with **./MyScript**
4. Your output should display 3 lines of text (including saying hi to John Wayne), and then display probably the student user.
5. If there are any errors, open the file with vi and correct them, then run again. Check case and spelling.

|  |
| --- |
| **Take a screenshot of the output of a successfully running script.** |

**Move to the RH Academy chapter 7 course content:**

**From Red Hat Academy, Chapter 7, section 06:**

## Guided Exercise: Manage Default Permissions and File Access

|  |
| --- |
| **Take a screenshot of the output of the history command after doing the guided exercise in section 6.** |

Upload the document of screenshots to Canvas