Project 5

Part1

When a process creates a directory or file, the respective object-created permissions are set by the process. This means that if a text editor creates a file, it creates it with required permissions. It does not need to execute permissions to create the file. When working with umask, it is safe to assume that you are masking those default permissions, with files starting at 666 and directories starting at 777. When you use umask, you are "masking" the default permissions.

1. **View current umask permissions and then, for the current shell session, set umask permissions to 0.**
2. **Navigate to the */tmp* directory and touch file1 and mkdir dir1. View current permissions.**
3. **Mask the write permissions for the "other" users, then touch file2 and view permissions.**
4. **Mask write access for group members and the write for "other" permissions, then touch file3 and view permissions.**
5. **Mask read and writes permissions for the owner of a file, then touches file4 and mkdir dir3 and view permissions.**
6. **Mask all permissions, including execute permissions, on new directories, and then touch file5.**
7. **For non-privileged users, mask read/write permissions for group and other, and make these changes persistent.**
8. **Set up Umask permanently for student user only to 033 and validate by reboot the server and touch class1 file and create DevOps directory.**
9. **Set up the UID and GID on a file class1.**
10. **Create a file linux1 and update the permission to 642.**
11. **Create a directory Florida and make sure you apply a sticky bit on Florida directory along with full permission 777**

Part2: Working with compression utility

1. While working in the user *root*'s home directory, create a **tar** archive of the entire */var/log* directory and name the tar file "logs.tar".
2. List the contents of the tar archive into standard output.
3. Using **gzip**, compress the tar file.
4. Extract the contents of the "logs.tar.gz" directory into */root/var/log*.
5. Using **star**, create an archive of the contents of the newly-created log directory in */root/var/log* into a file called "user-logs.tar". Be sure to preserve the entire path structure so that the archive indicates exactly where the file belonged. i.e. */root/var/log* should preceed every file in the archive.
6. List the contents of the tar file.
7. Compress the star archive into a **bzip2** compressed file.
8. Decompress the star archive into the */root* home directory.
9. Download Kafka package below and un-tar it in /opt folder

url: [**https://dlcdn.apache.org/kafka/3.2.0/kafka-3.2.0-src.tgz**](https://dlcdn.apache.org/kafka/3.2.0/kafka-3.2.0-src.tgz)