

**GETTING STARTED  
WITH  
ACCESS CONTROL LISTS**



## ➤ ACCESS CONTROL LISTS (ACL'S):

- In Linux, most of the operating systems has a standard set of file permissions. Aside from these, it also has a more refined set of permissions implemented through ACL's.
- Files and Directories have permission sets for the **Owner, Group** and **Others** for the system. However, these permission sets have **Limitations**.
- Different permissions can be configured for **different users and Groups**.
- There are two types:
  - **ACCESS ACLs** : ACL for specific file or directory.
  - **DEFAULT ACLs** : A default ACL for directory [optional].

### TOOLS:

- **SETFACL** : Sets ACLs for files and directories.
- **GETFACL** : To verifying ACLS

**SYNTAX:** #setfacl -m <rules> <files>

### → Viewing the current ACL:

```
#getfacl /cloud-data
```

### → Setting up an ACL for the user ram:

```
#setfacl -m u:ram:r /cloud-data
```

```
#getfacl /cloud-data
```

### → Switch the user ram and test the permissions:

```
#su - ram
```

```
$cd /cloud-data
```

Permission denied because no execute permissions.

```
$exit
```

### → To setting multiple users:

```
#setfacl -m u:ram:r,u:raju:rx /cloud-data
```

```
#getfacl /cloud-data
```



→ **To remove an acl for the user:**

```
#setfacl -x u:raju /cloud-data
```

→ **If you have multiple ACL setup on a single file, you can remove them all with -b option instead of removing them one by one:**

```
#setfacl -b /cloud-data
```

```
#getfacl /cloud-data
```

→ **Setting up an ACL for the group sports:**

```
#setfacl -m g:sports:rw /cloud-data
```

```
#getfacl /cloud-data
```

→ **Setting up an ACL for the multiple groups:**

```
#setfacl -m g:sports:rw,g:cloud-team /cloud-data
```

```
#getfacl /cloud-data
```