

# { EXPLORER PROJECT CHEAT SHEET }

## CONCEPTS

### - Idea:

This software enables PIs to have direct management over their research group on the cluster: providing them with, among other things, the ability to add and remove users.

### - Information Stored:

Every research group on explorer has the following information stored inside this software:

- Owner (PI) of a research group
- Members of the research group
- Delegates of a research group
- Guests of a research group
- Data custodian: the optional email address associated with the group (in addition to the group owner)
- How long the Research Group will be supported (i.e., its TTL)

### - How It Works:

The workflow for creating and maintaining a research group on the explorer cluster is generally as follows:

1. A PI makes a request to create a new research group on the cluster
2. The PI can then add members directly to their research group or add delegates, who are privileged members, to add other members to the group
3. Periodically, the cluster will run code that manifests the different research projects into the filesystem with the appropriate permissions set for users

## TYPES OF MEMBERS

### - Data Custodian

- Email address that will receive information related to quotas (can be a non-northeastern email)
- Does not require the person to be in the members of the research group

### - Guests

- Is able to read and execute, but not write in the research project directory

### - Group Members

- Is able to read, write, and execute in the research project directory
- Can view all other members of the research group

### - Delegates

- Is a Group Member
- Can add users to the research group
- Can remove users from the research group

### - Principal Investigator

- Has all the abilities of a delegate
- Can make users delegates for the research group
- Can remove delegates from the research group
- Can view the email of the data custodian
- Can update the email of the data custodian
- Can view the TTL of the research group

## COMMANDS

### Viewing Data

Viewing the members of a research group (*Authorization: any group member*)

```
$ project <project_name> view members
```

Viewing the delegates of a research group (*Authorization: must at least be a delegate*)

```
$ project <project_name> view delegates
```

Viewing the guests of a research group (*Authorization: must at least be a delegate*)

```
$ project <project_name> view guests
```

Viewing the groupemail of a research group (*Authorization: PI only*)

```
$ project <project_name> view groupemail
```

Viewing the ttl of a research group (*Authorization: PI only*)

```
$ project <project_name> view ttl
```

### Adding Users

Adding users to the members of a research group (*Authorization: must at least be a delegate*)

```
$ project <project_name> add members <user1, user2, etc.>
```

Adding users to the delegates of a research group (*Authorization: PI only*)

```
$ project <project_name> add delegates <user1, user2, etc.>
```

Adding users to the guests of a research group (*Authorization: PI only*)

```
$ project <project_name> add guests <user1, user2, etc.>
```

### Updating Data

Update the email of the data custodian (the non-PI email) for the research group (*Authorization: PI only*)

```
$ project <project_name> update groupemail <data_custodian_email>
```

### Removing Users

Removing users from the members of a research group (*Authorization: must at least be a delegate*)

```
$ project <project_name> remove members <user1, user2, etc.>
```

Removing users from the delegates of a research group (*Authorization: PI only*)

```
$ project <project_name> remove delegates <user1, user2, etc.>
```