

The submitted project has the following files: **py files, Instruction.pdf, and Report.pdf.**

py files contains all the codes;

**test\_corrupted.py, test\_crash.py, test\_restart.py** are all the test files for different purpose. If you want to corrupt or crash or restart different number of data-server, you can revise a bit codes by yourself in these three test files to achieve this goal.

To make sure you can run it, here are some examples:

1. Start the servers:

(1) Open a terminal, go to fusepy directory.

Execute this command: **python metaserver.py 51240**

This will open the metadata server.

(2) Open 5 new terminals, go to fusepy directory.

Execute the following commands in new terminals(each terminal only need to execute one command):

**python dataserver1.py 51241**

**python dataserver2.py 51242**

**python dataserver3.py 51243**

**python dataserver4.py 51244**

**python dataserver5.py 51245**

(3) Open a terminal, go to fusepy directory.

Execute this command: **python mediator.py 3 5 51240 51241 51242 51243 51244 51245**

This will open the mediator server. The first parameter 3 is Qr, and the second parameter 5 is Qw. You can change it as you want. **(Since the requirement of this project is Qw is Nreplica forever, so you can only change Qr)**

2. Start the client:

Open a terminal, go to fusepy directory.

Execute : **python FileSystem.py fusemount 51234**

This will mount the fusemount point. By now, all of the service are available, you can open a new terminal to test some command in the fuse mount directory.

3. Test:

We also provide a way to test. We provide three test files. Go to the path, execute these test files. (Eg: **python test\_corrupted.py, python test\_crash.py, python test\_restart.py**) You can see how the data server changed in the terminal.