In this assignment, I finished the passive mode and active mode of FTP and get the proxy of remote object using java RMI.

In order to get the remote object, I used the java Naming object and get the remote object by assigning the remote URI.

```
IServer server = null;
IServerFactory factory;
String name = "rmi://" + serverMachine +":"+serverPort+"/"+serverName;
factory=(IServerFactory)Naming.lookup(name);
server=factory.createServer();
```

In the active mode, the client performs as a server and the FTP server connects to it, so in the client, it starts the ServerSocket and listen to the connection.After getting the connection, the client can get OutputStream from socket to upload the file to server or get InputStream to download file from server.

```
if (mode == Mode.ACTIVE) {
	FileOutputStream f = new FileOutputStream(inputs[1]);
	new Thread(new GetThread(dataChan, f)).start();
	svr.get(inputs[1]);
}
```

The getthread makes it possible for server to listen at the background without interrupting the program.

In the passive mode, the server performs as a server and will do client's job in the active mode.

In the put method, I also defined a putthread like the get method, and it has the same function like the getthread.

In order to compile the jar locally, you need to use the mvn –Dlocal package command and for remoting test, it should be mvn –Dremote package and remember to modify the properties in the pom.xml in the ftp module such as the server-ip.

About the video, I provided two. One is the remoting test and the another one is local test.