* **Flow Chart : Cloud Server**

User Register

Start

Login

Yes No

Login, Authorize User,

Username & Password Wrong

Authorize Owner, View Owner Files

View Attackers, View Data De duplication Files

Logout

View Transactions, View File Rank Chart,

View Time Delay Results,

View Throughput Results.

**Flow Chart: Data Owner**

**Start**

**Owner Login**

**Login**

Yes No

**Register and Login, Upload**

**Username & Password Wrong**

**View Uploaded Files,**

**Log Out**

Verify File, Delete File.

**Flow Chart: User**

**Start**

**User Login**

**Login**

Yes No

**Register and Login,**

**Username & Password Wrong**

**Request FILE Key and MLE Key,**

**Log Out**

**Search Files**

**Download File.**

**Flow Chart:: Key Server**

**Start**

**Key Server Login**

**Login**

Yes No

**Login, View Secret Key Request and Permit,**

**Username & Password Wrong**

**View MLE Key Request and Permit.**

**Log Out**