**Algorithm\_1:**

Maintain a variable for each of the drive accounts to determine available memory.

If storage for current account overflows then split the file according to size and maintain a mapping in a database and store the slitted file in different accounts at back-end(cloud).

**Algorithm\_2:**

Maintain a variable for each of the cloud service provider to determine available memory of each of these.

**Basic Idea:**Use simple **Ratio and proportion** of mathematics.

Ex-if a file of 100MB is to be splitted among :

Google Drive:15GB, SkyDrive:7GB, Ubuntu one:5GB

Then file is to be divided in ratio of 15:7:5.

Thus 1st part in Google Drive gets=(15/27)\*100

2nd part in Skydrive =(7/27)\*100

Ubuntu = (5/25)\*100

**To Save File on cloud:**

* Put all cloud objects(drive, skydrive, Ubuntu one)in a max priority queue.
* Extract an object till queue is not empty.
* Save respective parts in order(of file bytes) with size mentioned above.

Thus a file say **avengers.avi** is parted into 3 parts say:

1. avengers.avi.part1 on Google Drive.
2. Avengers.avi.part2 on sky drive.
3. Avengers.avi.part3 on Ubuntu one.

**Download file to your desktop:**

* Bring parts of file from respective cloud and merge them(reverse of splitting).

**File Search:**

* Search in only one of the drive for filename.

**File Sharing:**

* Create a public URL for the file to be shared such that when you hit this url in your browser file downloads to your desktop (same procedure as above).

**Delete:**

* To delete a file put different parts of file in their respective cloud’s trash or on permanently delete them.

**Managing folders:**

* if you create a new folder in UI and put a file in it then in corresponding backend cloud providers a folder is created and part of corresponding file is placed in it.