# Dropbox Client

ASOIS Project

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## Problem Definition

The problem definition and literature background should explore and describe the problem or area of interest and provide some investigation of background work in this area. It should examine the research literature in the selected area, according to what are the important problems, to what degree are these problems understood and solved, how do different solutions interrelate, and what are the important issues for the future. Original thoughts, solutions, insights are strongly encouraged and will be rewarded. Because of the time limits of the quarter and our emphasis on software implementation, this stage is generally expected to be very limited, e.g. Google around, read a couple of papers, think hard for awhile and write your project proposal.

## Design

The proposed software solution for solving the problem stated in the previous chapter, we implement a Dropbox Client Application. Client Application has the following features:

1. Generate files of various dimensions
2. Upload content of given directory to Dropbox
3. Download content of given directory from Dropbox to local machine
4. Measure timing results for upload and download and corresponding file size

The client creates a new directory and generates an arbitrary number of files with different dimensions. The created directory content is covered and all the files are uploaded to Dropbox, measuring file size and the time needed for the actual upload. After all the files are uploaded, client application downloads them, also measuring every file size and time needed for download.

For the purpose of this project, file sizes are to vary and the folder should not contain two files with same dimension. In order to be able to compare time needed for upload and download, same files that are uploaded to Dropbox have to be downloaded afterwards.

Dropbox has a special section for developers that want to include cloud sharing in their applications. In order to accomplish this feature, an SDK is provided under an open source license. The SDK is available for download for different programming languages: Python, Java. To accomplish what we have proposed, Dropbox SDK has to be included in the client application.

## Implementation and Experimentation

In the implementation and experimentation phase, the design, or some aspect of the design is implemented to demonstrate feasibility. The experimentation involves developing a reasonable hypothesis and designing and performing an experiment to test this hypothesis.

For Dropbox Client Application implementation, we used Python 2.7.10 and Dropbox SDK for Python X.X.X.

Installed SDK.

For simplicity, the project contains only one file, Main.py.

* How to create application on Dropbox developers?
* Generating files
* Upload file + measure size + measure time
* Download file + size + time