

CIT 383 – Scripting 1  
Lab 5  
Executing External Commands

Objectives:

1. Demonstrate ability to execute Linux commands within python
2. Demonstrate ability to write scripts for file & folder back-up
3. Demonstrate ability to write scripts for archiving

Tasks:

1. Implement a function to backup files in a given directory. Your function should accept as inputs, a folder to be backed up and the destination folder in which files would be backed up to. Handle the situation where the source and destination folders do not exist. For testing purposes, create two directories in your project directory. In one of the directories (your source directory, create four arbitrarily named files) **10 PTS**
2. Implement a function that accepts the name of a directory as argument and creates an archive out of the contents of the directory. Your function should also accept the type of archive to be created. Valid archive types are **zip,gztar,tar,bztar and xztar**. Ensure that a valid archive type is provided by the user. **10 PTS**
3. As a system administrator, you realize that some archived files contain files that are very large. Write a function that takes a given **zip** file as argument and displays the OS and file size (**in KB**) of all files with sizes greater than a given threshold (**in KB**). Your function should be flexible enough to allow the user to indicate the threshold. For testing purposes, please use the attached zip file.  
**Hint: Please remember the OS reports the size of files in bytes and a Kilobyte is 1024bytes**  
**10PTS**
4. Implement a function that displays all files in a given directory that were modified in the last 2 weeks. The function should accept as an argument the directory of interest. If no directory is specified or the directory specified does not exist, the current working directory should be used. **10PTS**
5. Write a script that allows a user to utilize the functions implemented in **1, 2, 3 & 4** above. Your script should have a text-based menu system (**implemented as a function**) for the user to select the functionality required. Your menu system should ensure that a valid option is selected. **5 PTS**
6. Comment your code appropriately **5 PTS**
7. Submit your script on Canvas

**NB: For 3, you would have to explore the `zipfile` python module to figure out functions that can be used to determine meta-data(size,os etc) of files**