

# ASSIGNMENT 6: PYTHON SCRIPTING

CS3423 - Systems Programming

Rocky Slavin - UTSA

For this assignment, you will use **Python3** to create a project organizing program. Given a directory filled with arbitrary files including some project files beginning with the string “proj” (e.g., proj1.c, projB.o, proj12.h) and no directories, create a Python3 program which **moves** each file into a corresponding directory titled “assignmentXXX” where XXX is replaced with whatever follows the string “proj” in the file (i.e., the suffix), **not including the extension**. Any other files not beginning with “proj” should be placed into a “misc” directory.

**Note:** It is possible to encounter files with no suffix (e.g., proj.c). Such files should be put in a directory named assignment.

## Example Directory Contents

```
input.txt      proj          proj1.c  proj1.o  proj12.c
projPython1.input  projPython1.py  projZ.c  projZ.h  trash.txt
```

## Result After Execution

Executing the program for the above directory should result the following structure within the same directory. No other files should exist.

```
assignment/
  proj
assignment1/
  proj1.c
  proj1.o
assignment12/
  proj12.c
assignmentPython1/
  projPython1.py
  projPython1.input
assignmentZ/
  projZ.c
  projZ.h
misc/
  input.txt
  trash.txt
```

## Script Execution

Your program should be invoked as a single Python file (see below) with **one argument**: the path of the directory to be sorted. Assuming the program executes correctly, no output should print to

the stdout.

```
$ assign6.py /path/to/some/directory
```

## Assignment Data

Sample input files can be found in:

```
/usr/local/courses/rslavin/cs3423/Spring19/assign6.
```

As always, you should test your program with your own data as well to be sure that it works correctly.

## Program Files

Your program will consist of exactly one file:

- `assign6.py` - the main file which is initially invoked

## Extra Credit (5 points)

For extra credit, your program should take an *optional* second argument which will specify an assignment to zip up based on the suffix. The resulting zip file should be placed at the root directory (i.e., the same one as the assignment directory) and have the same name as the assignment directory but with the `.zip` extension.

For example:

```
$ assign6.py /path/to/some/directory Python1
```

should result in the same output as the example above, but should also include `assignmentPython1.zip` directly in `/in/path/to/some/directory`. The zip file should only contain the **contents** of the `assignmentPython1` directory.

## Submission

Turn your assignment in via Blackboard. Your zip file, named `LastnameFirstname.zip` should contain only your Python file and any related files.

If you attempt the extra credit, name your file `LastnameFirstname_EC.zip`. Without the `_EC`, your submission will be graded as normal.