William Kelley
Lab15-ITE315

```
$ python3 hashfiles.py
Enter a directory to hash:
Lab13
../Lab13/lab13.part01.pl
08f408e5a2c2a79d18723d87e66381230943c7a8f64e424b4d92e74b878fdb28e07ee0dfcbbc4
ec61cb41814d6df2bd2654243edd820e755a6a8ea5b756454fd
../Lab13/lab13.part02.pl
80d6a1af448d3295f0706e00f2a6ed12c63f5f0ebb76944818570462788c6bc2105e5eedfaa11
2ed9788a98540fefb6bcdd326d5cfdd068507cfcb8e9a78d49d


$ python3 hashfiles.py
Enter a directory to hash:

hashfiles.py
7dc771aac0ce855a31b36ceb20ae75fb723150c3f122651559e34523019eb21a24e34bf4aac30
715e578821c9b5d0fb174d6f98c5036192cf4ec7cda974c3279
helloworld.py
2a66fb079455b69132e3a1fa22ad9b6b44e8f62bd6d5d867fee51c3acd11051c39f69766a3038
0f9a5a1e0631771a03ce756077a9fd93e1e80b1dcaafe0d8e9c
lab15.py
585fd57f27e3dcecb6f9fcbfdc97269474fc2f45db1af93a2365aef1193ba8be6b6130242b5b4
3fbc2091ca74ac91f6b73d22a5d59e732b7403e01762e3107ba


#!/ usr/bin/python
from Crypto.Hash import SHA512
import sys
import os

def hashAFile(fileName):
  if len(fileName) == 0:
    print("Usage: hashfile .py fname")
    print("fname -> name of file to be hashed")
  else:
    fname = fileName
    hasher = SHA512.new()
    with open(fname, 'rb') as readIt:
      buf = readIt.read()
      hasher.update(buf)
    print(hasher.hexdigest())

def getFileList(dirName):
  if len(dirName) == 0:
    listFiles = os.listdir(os.getcwd())
    for f in listFiles:
      print(f)
      hashAFile(f)
  else:
    listFiles = os.listdir("../"+dirName)
    for f in listFiles:
      f = "../"+dirName+"/"+f
      print(f)
```

```python
        hashAFile(f)

def main():
    direc = input("Enter a directory to hash: \n")
    getFileList(direc)

if __name__ == "__main__":
    main()
```