

Digital Forensics Workshop (CSE3156)

Assignments on *formemost*

Computer Science Department, SOA University

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1. Develop a python code which takes 3 command line arguments (i) input directory path (ii) output directory path (iii) type of file (jpg, pdf etc) you can extract. Use arg parse to check rules of command line argument.

here is an example:

```
import argparse

parser = argparse.ArgumentParser(description="A simple example of
argparse")

parser.add_argument("name", type=str, help="Your name")

args = parser.parse_args()

print(f"Hello, {args.name}! ")
```

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2. Store the list of input image files from the first command-line argument (input directory path) in a Python array. An example is shown in below:

```
# Get a list of all file names in the directory
```

```
import os
```

```
file_names = os.listdir(directory_path)
```

```
# Filter out directories (if needed, leaving only files)
```

```
file_names = [file for file in file_names if os.path.isfile(os.path.join(directory_path, file))]
```

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3. (i) Run foremost on the python array which stores the list of input image files from the first command-line argument (input directory path)

(ii) The type of file to be carved by foremost is passed in 3rd arguments are:

(a) 'all' to carve all types of files

(b) 'jpg' to carve jpg files

(c) 'pdf' to carve pdf files

(d) 'bmp' to carve odf

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4. Foremost runs sequentially on multiple image files. Develop a Python program to optimize the execution time by running **foremost** on each image file in a separate thread, allowing parallel execution.

Here is an example of thread:

```
# Function to be run in a thread
def run_foremost(imgfilename, filetype):
    #foremost command runs here
```

Main Program

```
import threading
import time
thread
=threading.Thread(target=run_foremost,
args=(imgfilename, filetype))
# Start the thread
thread.start()
# Main thread continues while the new thread
runs in the background
print("Main thread continues to run...")
# Wait for the thread to finish
thread.join()
print("Thread finished, main thread ends.")
```

Thank You