CMPE 230 HOMEWORK 2

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Program Logic

This project is written by using Python 2.7. After running to program user gives an input starting with 'filelist' alongside with some options and directory lists.

By using raw_input build-in function of Python, we've parsed the given input and created seperated Command objects for different types of options. We classified commands by their name of option and used this classification in order to sort these commands for runtime. To sum up, main class of the code parses given input and creates objects, Command class of the code does the required tasks and gets a result list of files. mmand class of the code does the required tasks and gets a result list of files.

We assumed that the option parameters are given correctly (i.e for -smaller option, valid parameters are 18(for bytes only integer),2K,3M etc. 'helloworld' string is not valid)

-bigger and -smaller function only accepts integers or strings ends with 'K','M' and 'G'.

-before and -after options accepts YYYMMDDTHHMMSS or YYYMMDD, any other given input will cause error and termination of the program.

How to run

To run the code it is required to have Python 2.7. We didn't use any library which requires pip installation. Typing 'python main.py' in the code directory will launch the code.

After running the code, you can give queries starting with 'filelist' command, and you can repeat the process with different queries without need of re-run the code.

Listing 1: Sample Bash code – How to Run.

```
1  python main.py
```

Listing 2: Sample Test Cases – How to Run

```
1  filelist -after 20130101 -before 20190101 test1 test2
```

The test case above will traverse the files inside test1 and test2 directories recursively and first finds the files before 20190101 and then finds files modified after 20130101. While doing the process for every option it takes intersection of found files and prints them if '-nofilelist' option is not given

Listing 3: Sample Test Cases 2 – How to Run

```
1  filelist -after 20130101 -before 20190101 -match hello[0-9]+ -smaller 2K ↩
      test1 test2 \\
2  filelist -smaller 2K -before 20190101 test1 test2\\
3  filelist -bigger 3G -after 20130101 test1 test2
```