

Python example

```
def displayModules(dir):
    if os.path.isdir(dir):
        if os.path.exists(os.path.join(dir,
                                       "README.texi")):
            doCat(dir, "README.texi")

    moduleMenu(dir)
    listOfModules = []
    for file in os.listdir(dir):
        if os.path.isfile(os.path.join(dir, file)):
            if (len(file)>4) and (file[-4:] == '.def'):
                listOfModules = listOfModules + [file]
    parseModules(dir, listOfModules)
    else:
        print "directory " + dir + " not found"
```

- above is a python function, firstly describe the general effect of this function.
- now provide a line by line commentry of this function, you do not need to describe the functions doCat, moduleMenu and parseModules

Example questions

- what file does the following script depend upon?

```
#!/bin/bash
grep -i $1 $HOME/phones
```

- the script is called 'ring' and is used as a telephone lookup service
- describe in detail the two lines of the script

Example questions

- a new user who has not installed a file (as indicated by the first answer) will get a strange error
 - modify the script to test for the absence of this file and generate an informative message and terminate the script

Python example

- inside the directory `foobar` there exist the following files:
- | | | | | |
|------------------|--------------------|--------------------|--------------------|--------------------|
| <code>a.d</code> | <code>b.def</code> | <code>c.mod</code> | <code>d.def</code> | <code>e.def</code> |
|------------------|--------------------|--------------------|--------------------|--------------------|
- assuming that the function in the python program is invoked `displayModules("foobar")` and that the current working directory can see `foobar` run the code by hand writing down the variable values for each iteration of the `for` loop

Expect example

- ```
#!/bin/expect

set timeout 60
spawn ssh [lindex $argv 0]
expect "assword: "
send "[lindex $argv 1]\r"
expect "\\$"
send "cd [lindex $argv 2]\r"
expect "\\$"
interact
```

- how many arguments does this script require?
- what is the purpose of each argument?
- give a line by line commentry of this script