EECS2031

Lab 8
Winter 2017

In this lab, you will write a small shell script and a sed script.
The shell script is used to access some database. While the sed script will manipulate some text file.

Problem 1

A database table is a collection of records where each record has a unique field (different from any other record). That field is knows as *the key*.
Your database consists of 2 files
File 1 this file (part_Q.txt) contains records on the form <product_ID, quantity> separated by white spaces.

The first 2 lines of the file shown here

```
NWLR35MQ      649
HCDA93OW      526
```

Where the first field is the product number, the second field is the number of units in stock.

File 2
The second file (part_cost_add.txt) have records consists of product_ID, price, and address of the supplier). The first two lines are

```
NWLR35MQ   93.83   4007 Blue Pine Port, Port Mellon, NU, X7O-2V2, CA, (867) 396-5211
HCDA93OW   8.86   3148 Crystal Diversion, Coldwater, MO, 65695-0541, US, (314) 100-1049
```

Write a **Bourne shell** script called mydb.sh to do the following (make sure the file is executable).

The program runs

mydb.sh file1 file2 -command argument

If the number of arguments is not 4, then display

Wrong Arguments

if the number is 4, then
file if the part_ID quantity described above every record has 2 fields, ID and quantity

File2 is the second file described above part_ID, cost, supplier address

command is the command you want to execute.

- Command = check, followed by an integer; the program prints a list of product_ID, quantity, and supplier address separated by space **if and only if** the quantity in stock less than the fourth argument (the integer).
- Command = show, followed by a product_ID, the program prints the total value of the product in stock (the quantity * the cost).

For example a command like

mydb.sh f1.txt f2.txt -check 200

where f1.txt and f2.txt are the two files mentioned above. The script prints a list of product_ID's followed by quantity in stock, followed by the supplier address **only if the quantity left is less than 200.** the fields are separated by one space and terminated by a newline.

mydb.sh f1.txt f2.txt -show ABCD45LM

prints the total cost of the the product ABCD45LM that is the number of items in stock, multiplied by the cost of the item. Terminated by a newline.

Submit as **submit 2031 L8A mydb.sh**

Problem 2

Write a sed script that checks a file with phone numbers and prints the invalid ones.
The valid numbers are
An optional +
An optional 1
Area code between two parenthesis
prefix (3 digits)followed by "-" the rest of the number (4 digits)

For example
(416)736-5053, 1(416)736-2100, and +1(416)736-2100 are all valid numbers, while (a12)233-2122 is not.

Bonus: consider the 555 prefix to be invalid

Submit as **submit 2031 L8B phone.sed**