

AWK Assignments

1. Write a program to print min, max and average price of books from the following file:

1	ACAD	120
2	C	120
3	C++	220
4	COBOL	340
5	Perl	155
6	Fortran	400

2. Write a program to print max file length and min file length and also, size.
3. Write a program to accept book name (approx.) from user and search all records which contain the characters entered by user
4. Identify the bug in the following script:

```
# main processing
{
  counter++;
  if ($2 ~ /\[+]/) { arr[$1]=$2; # relate code to name
    print arr[$1]; price = price + $3; }
} # main processing

END { print "Total Price: ",price; for (i=1;i<=counter; i++) {print "array data:", arr[i]; } }
```

5. Write separate programs to scan a specific directory and
- make unique list of file owner names
 - list the size of files they have created
 - display any hidden files they have created
6. Accept name of a user and directory name. Find out how many shell script programs he has developed in that directory. (assume shell script programs always have .sh extension)
7. Access 2 book master files (each contains few records) and display book names which contain 'a' or 'c' letters. Display records found in each file and total number of records processed.

- .8A Write a program to output book name and number of authors the book has.
Display books with the highest number of authors and least number of authors.

Input file name: BMAST.TXT
Input File format:

BCODE BNAME AUTH1 AUTH2 AUTH3 AUTH4 BPRICE

Sample data:

1, Let us C, Y Kantekar
2,Spirit of C, Kernighan, Richie
3,ACAD, George Omura

- .8B Collect user name (who is running this AWK script) and check if his/her name exists in USERS file. If yes continue to run, if not, exit with error code 5.

- .8C Write a program to compute the frequencies of words in a text file. Display the word and the frequency.

- .8D Improve the program in 8C to remove punctuation and make it case-insensitive.

- .9 Write a program to read file as below:

FILE_LIST:

c:\aa\bb\cc\file1.txt
c:\gg\dd\dda dd\file2.txt
c:\dd ff\file3.txt
c:\aa\cc\ee\file1.txt

OUTPUT: Duplicate files should be identified and their paths should be displayed.

OUTPUT:

c:\aa\bb\cc\file1.txt ← duplicate
c:\aa\cc\ee\file1.txt ← duplicate

```
c:\gg\dd\dda dd\file2.txt
c:\dd ff\file3.txt
```

- List should show repeating files. Extensions should be same.
- Ask user whether to display duplicate files or not

10. Write an AWK program to convert a double line text file into a single line text file.

.11 Data is present as below

1	ACAD	120
2	C	120
3	C++	220
4	COBOL	340
5	Perl	155
6	Fortran	400

OUTPUT expected:

Code	Name	Price	New Price	Min/Max
1	ACAD	120	130	Min
2	C	120	130	Min
3	C++	220	230	
4	COBOL	340	350	
5	Perl	155	165	
6	Fortran	400	410	Max

Average: _____

.12 From data below in USERS file, display records between CODE number specified in CODE_SELECT file. For example : CODE_SELECT file contains 15 as code, thus the underlined records from file USERS are displayed

CODE SELECT file

1 ← start range
5 ← end value

USERS file

Code	Name	Department	
1	Amit	GBM	
<u>2</u>	<u>sanjeev</u>	<u>GBM</u>	
<u>3</u>	<u>Suresh</u>	<u>GBM</u>	
<u>4</u>	<u>Nidhi</u>	<u>ITO</u>	
5	Apoorva	GBM	
6	Amit	ITO	

.13 Construct 2 files as below:

BOOK_MASTER

BCODE	BNAME	BPRICE
1	ACAD	120
2	C	140
3	C++	220
4	COBOL	400

BOOK_TRANSACTION

B	C	Q	B
CODE		TY	MODE I: INWARD O: OUTWARD
1		50	I
1		25	O
2		40	I

4	40	I
---	----	---

PART A: For each book in the book master file, find out the sum of quantity by scanning records of BOOK_TRANSACTION file.

OUTPUT REQUIRED:

```

HEADER
error no: 0
got record: code: 1  qty:  50 Mode:  I
rec found >>
qty::: 50
got record: code: 1  qty:  25 Mode:  O
rec found >>
qty::: 75
got record: code: 2  qty:  40 Mode:  I
got record: code: 4  qty:  40 Mode:  I
error no: 0
code: 1 Quantity:  75  Records found: 2
error no: 0
got record: code: 1  qty:  50 Mode:  I
got record: code: 1  qty:  25 Mode:  O
got record: code: 2  qty:  40 Mode:  I
rec found >>
qty::: 40
got record: code: 4  qty:  40 Mode:  I
error no: 0
code: 2 Quantity:  40  Records found: 1
error no: 0
got record: code: 1  qty:  50 Mode:  I
got record: code: 1  qty:  25 Mode:  O
got record: code: 2  qty:  40 Mode:  I
got record: code: 4  qty:  40 Mode:  I
error no: 0
code: 3 Quantity:  0   Records found: 0
error no: 0
got record: code: 1  qty:  50 Mode:  I
got record: code: 1  qty:  25 Mode:  O
got record: code: 2  qty:  40 Mode:  I
got record: code: 4  qty:  40 Mode:  I
rec found >>
qty::: 40
error no: 0
code: 4 Quantity:  40  Records found: 1
END

```

PART B

For same above files, find out the balance of each book in the library. Order the output by stock amount.

OUTPUT REQUIRED

Book Name	Book Stock
ACAD	250
C	188
C++	340

END OF ASSIGNMENTS