# AWK & sed homework (deadline:5/28)

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請跑以下程式(print screen)並且說明此程式指令的功用於DOC中並上傳[PS. 特別注意以下跨號內黑體字]
(課程網站檔案下載:user.txt, consumer.txt, song.txt) (以下程式千萬不要複製貼上,字型不合)
awk -F":" '!a[$2]++{print $0}' user.txt (!a[$0]++功能是甚麼? Google it!)
awk -F":" 'ARGIND==1{a[$1]=$0;next;}{if($1 in a){print a[$1]"\t"$0}}' user.txt consumer.txt (功能是甚麼?)
awk -F":" '{a[$2]}END{asorti(a);for(i=1;i<=length(a);i++){print a[i]}}' user.txt (asorti功能是甚麼? Google it!)
sed -e '1,2d' song.txt (功能是甚麼?)
sed -e 's/6.30/7.30/g' song.txt >> song2.txt (s, g, >>功能是甚麼?)
sed 's/linux/Unix/' song.txt (沒有g有甚麼效果,請與原始檔案比較)
sed 's/linux/Unix/2' song.txt (加上2有甚麼效果,請與原始檔案比較)
sed 's/linux/Unix/g' song.txt (加上g有甚麼效果,請與前兩個比較)
sed -n 's/linux/Unix/p' song.txt (p有甚麼效果)
```

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### 請跑以下程式(print screen)並且說明此程式指令的功用於DOC中並上傳

### (課程網站檔案下載:info.txt) (以下程式千萬不要複製貼上,字型不合)

- 1. 首先將info.txt的檔案,將多餘的:去除,讓其只保留一個:在每個資料欄之間
- 2. 請利用awk將電話那一欄印出來
- 3. 請利用awk將姓名為Dan的人,印出其電話號碼
- 4.請利用awk將姓名開頭是J的人,印出其姓名以及電話號碼(用空白格開)
- 5.請利用awk將後面的三個欄位分別在數字前面加印\$字符號
- 6. 請利用sed將info.txt的檔案中John修改成 Joanthan
- 7.請利用sed將info.txt的檔案中刪除包含Lane的資料行

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(檔案下載: https://www.kaggle.com/c/acquire-valued-shoppers-challenge/data?select=transactions.csv.gz), 不要解壓縮!!(以下程式千萬不要複製貼上,字型不合)

zcat 檔案路徑 | awk -F"," 'NR>1 {print \$11}' | head -n10000000 | awk 'BEGIN {max=0} {if (\$1>max) max=\$1} END {print max}' (**BEGIN,END, 功能是甚麼?**)

```
由於檔案過大EC2硬碟不夠,Windows使用者請利用git bash或是CMder來實作
zcat 檔案路徑 | more (zcat, more功能是甚麼?)
zcat 檔案路徑 | wc -l (wc -l 功能是其麼?)
time zcat 檔案路徑 | wc -l (time功能是其麼?)
zcat 檔案路徑 | head -n100 | tail -n50 > text.txt (head, tail, >功能是甚麼?)
zcat 檔案路徑 | awk -F"," '{if(NR==1)print$0}'(awk -F, NR功能是甚麼?)
zcat 檔案路徑 | awk -F"," '{if(NR%1000==1)print$0}' | more (%代表是甚麼?)
zcat 檔案路徑 | awk -F"," '{print $3}' | more (awk $3代表是甚麼?)
zcat 檔案路徑 | head -n10000000 | awk -F"," '$10>100{print$0}' | more
zcat 檔案路徑 | head -n10000000 | awk -F"," '$7 ~/^2013-06-*/{print $0} ' | more (~代表是甚麼?)
```

zcat 檔案路徑 | awk -F"," '{print \$7}' | uniq -c | more (google "uniq" -c 功能是甚麼?)

# id - A unique id representing a customer chain - An integer representing a store chain dept - An aggregate grouping of the Category (e.g. water) category - The product category (e.g. sparkling water) company - An id of the company that sells the item brand - An id of the brand to which the item belongs date - The date of purchase productsize - The amount of the product purchase (e.g. 16 oz of water) productmeasure - The units of the product purchase (e.g. ounces) purchasequantity - The number of units purchased purchaseamount - The dollar amount of the purchase

## AWK & sed homework for MAC (deadline:5/28)

請利用MAC終端機,跑以下程式(print screen)並且說明此程式指令的功用於DOC中並上傳至Moodle[PS. 特別注意以下跨號內黑體字]

(檔案下載: https://www.kaggle.com/c/acquire-valued-shoppers-challenge/data?select=transactions.csv.gz), 不要解壓縮!!(以下程式千萬不要複製貼上,字型不合)

*Transactions.csv.qz(~3G)* 

```
gunzip -c 檔案路徑 | more (zcat, more功能是甚麼?)
                                                                                id - A unique id representing a customer
                                                                                chain - An integer representing a store chain
gunzip -c 檔案路徑 | wc -l (wc -l功能是甚麼?)
                                                                                dept - An aggregate grouping of the Category (e.g. water)
                                                                                category - The product category (e.g. sparkling water)
time gunzip -c 檔案路徑 | wc -l (time功能是甚麼?)
                                                                                company - An id of the company that sells the item
                                                                                brand - An id of the brand to which the item belongs
gunzip -c 檔案路徑 | head -n100 | tail -n50 > text.txt (head, tail, >功能是甚麼?)
                                                                                date - The date of purchase
gunzip -c 檔案路徑 | awk -F"," '{if(NR==1)print$0}'(awk -F, NR功能是甚麼?)
                                                                                productsize - The amount of the product purchase (e.g. 16 oz of
                                                                                water)
gunzip -c 檔案路徑 | awk -F"," '{if(NR%1000==1)print$0}' | more (%代表是甚麼?)
                                                                                productmeasure - The units of the product purchase (e.g. ounces)
                                                                                purchasequantity - The number of units purchased
gunzip -c 檔案路徑 | awk -F"," '{print $3}' | more (awk $3代表是甚麼?)
                                                                                purchaseamount - The dollar amount of the purchase
                   head -n100000000 | awk -F"," '$10>100{print$0}' | more
gunzip -c 檔案路徑 |
gunzip -c 檔案路徑 | head -n100000000 | awk -F"," '$7 ~/^2013-06-*/{print $0} ' | more (~代表是甚麼?)
gunzip -c 檔案路徑 | awk -F"," '{print $7}' | uniq -c | more (google "uniq" -c 功能是甚麼?)
gunzip -c 檔案路徑 | awk -F"," 'NR>1 {print $11}' | head -n10000000 | awk 'BEGIN {max=0} {if ($1>max) max=$1} END {print max}' (BEGIN,END,功能是甚麼
```