

## Lab Assignment 6

**a) 1.a. #!/bin/awk**

```
{print $1 " " $2 " " $5}
```

```
akshala@akshala-HP-Laptop-15-bs1xx:~/Documents/IIITD/SM/Assignment
6$ awk -f A1a.awk marks.txt
```

```
Name  Gender  Endsem(50%)
```

```
AA   M   35
```

```
BB   F   44
```

```
CC   F   25
```

```
DD   M   42
```

```
EE   F   30
```

```
FF   M   45
```

**b. #!/bin/awk**

```
NR == 1 {print $1 " " $2 " " $5}
```

```
NR == 2 {print $1 " " $2 " " $5}
```

```
NR == 3 {print $1 " " $2 " " $5}
```

```
NR == 4 {print $1 " " $2 " " $5}
```

```
akshala@akshala-HP-Laptop-15-bs1xx:~/Documents/IIITD/SM/Assignment
6$ awk -f A1b.awk marks.txt
```

```
Name  Gender  Endsem(50%)
```

```
AA   M   35
```

```
BB   F   44
```

```
CC   F   25
```

**c. #!/bin/awk**

```
NR == 1 {print $1 " " $2 " " $5}
```

```
NR == 7 {print $1 " " $2 " " $5}
```

```
akshala@akshala-HP-Laptop-15-bs1xx:~/Documents/IIITD/SM/Assignment
6$ awk -f A1c.awk marks.txt
```

```
Name  Gender  Endsem(50%)
```

FF M 45

## 2. #!/bin/awk

```
NR == 1 {print $1 " " "Total Marks"}
```

```
NR == 2 {sum=0.25*$3 + 0.25*$4 + 0.5*$5}
```

```
NR == 2 {print $1 " " sum}
```

```
NR == 3 {sum=0.25*$3 + 0.25*$4 + 0.5*$5}
```

```
NR == 3 {print $1 " " sum}
```

```
NR == 4 {sum=0.25*$3 + 0.25*$4 + 0.5*$5}
```

```
NR == 4 {print $1 " " sum}
```

```
NR == 5 {sum=0.25*$3 + 0.25*$4 + 0.5*$5}
```

```
NR == 5 {print $1 " " sum}
```

```
NR == 6 {sum=0.25*$3 + 0.25*$4 + 0.5*$5}
```

```
NR == 6 {print $1 " " sum}
```

```
NR == 7 {sum=0.25*$3 + 0.25*$4 + 0.5*$5}
```

```
NR == 7 {print $1 " " sum}
```

akshala@akshala-HP-Laptop-15-bs1xx:~/Documents/IIITD/SM/Assignment

6\$ awk -f A2.awk marks.txt

Name	Total Marks
------	-------------

AA	26.25
----	-------

BB	31.75
----	-------

CC	20.75
----	-------

DD	29.75
----	-------

EE	25
----	----

FF	27.5
----	------

## 3. #!/bin/awk

```
BEGIN{print "The students scoring above average are-"}
```

```
BEGIN{max=0}
BEGIN{avg=26.833333333}
BEGIN{name=""}
```

```
NR != 1 {sum1=0.25*$3 + 0.25*$4 + 0.5*$5}
NR != 1 {if (max<sum1) {max=sum1; name=$1}}
NR != 1 {if (avg<sum1) {print $1}}
```

```
END{print "Topper " name}
akshala@akshala-HP-Laptop-15-bs1xx:~/Documents/IIITD/SM/Assignment
6$ awk -f A3.awk marks.txt
The students scoring above average are-
BB
DD
FF
Topper BB
```

#### 4. #!/bin/awk

```
BEGIN{sum1=0}
{sum1=sum1+$3}
{avg1=sum1/6}
END{print "avg of mid1 " avg1}
```

```
BEGIN{sum2=0}
{sum2=sum2+$4}
{avg2=sum2/6}
END{print "avg2 of mid2 " avg2}
```

```
BEGIN{sum=0}
{sum=avg1*6+avg2*6}
{avg=sum/12}
END{print "combined avg " avg}
```

```
akshala@akshala-HP-Laptop-15-bs1xx:~/Documents/IIITD/SM/Assignment
6$ awk -f A4.awk marks.txt
avg of mid1 15.6667
avg2 of mid2 18
combined avg 16.8333
```

**5. #!/bin/awk**

```
BEGIN{sum=0}
```

```
{sum=sum+$5}
```

```
{avg=sum/6}
```

```
END{print "avg " avg}
```

```
akshala@akshala-HP-Laptop-15-bs1xx:~/Documents/IIITD/SM/Assignment
6$ awk -f A5.awk marks.txt
Avg 36.8333
```

**b) 1. BEGIN{FPAT = "([^\,]\*)|(\"[^\"]+\")"; sum=0}**

```
{sum=sum+$21}
```

```
END{print "Total number of votes " sum}
```

```
akshala@akshala-HP-Laptop-15-bs1xx:~/Documents/IIITD/SM/Assignment
6$ gawk -f B1.awk lab6assignmentdata_20236.csv
Total number of votes 1498644
```

**2. #!/bin/awk**

```
BEGIN {
```

```
    FPAT = "([^\,]*)|(\"[^\"]+\")"
```

```
}
```

```
{if ($10 ~ "European, Asian, Indian") {print $0}}
```

```
akshala@akshala-HP-Laptop-15-bs1xx:~/Documents/IIITD/SM/Assignment
6$ gawk -f B2.awk lab6assignmentdata_20236.csv
6300010,Spiral - Sofitel Philippine Plaza Manila,162,Pasay City,"Plaza
Level, Sofitel Philippine Plaza Manila, CCP Complex, Pasay City","Sofitel
Philippine Plaza Manila, Pasay City","Sofitel Philippine Plaza Manila, Pasay
City, Pasay City",120.98009,14.55299,"European, Asian,
```

Indian",6000,Botswana Pula(P),Yes,No,No,No,4,4.9,Dark  
Green,Excellent,621

**3. #!/bin/awk**

```
BEGIN {
    FPAT = "([^\,]*)|(\"[^\"]\"+\\")"
```

```
}
{if ($19 ~ "Dark Green") {print $0}}
```

```
akshala@akshala-HP-Laptop-15-bs1xx:~/Documents/IIITD/SM/Assignment
6$ gawk -f B3.awk lab6assignmentdata_20236.csv
```

```
6317637,Le Petit Souffle,162,Makati City,"Third Floor, Century City Mall,
Kalayaan Avenue, Poblacion, Makati City","Century City Mall, Poblacion,
Makati City","Century City Mall, Poblacion, Makati City, Makati
City",121.027535,14.565443,"French, Japanese, Desserts",1100,Botswana
Pula(P),Yes,No,No,No,3,4.8,Dark Green,Excellent,314
```

**4. #!/bin/awk**

```
BEGIN{FPAT = "([^\,]*)|(\"[^\"]\"+\\")"}
{print $19}
```

```
akshala@akshala-HP-Laptop-15-bs1xx:~/Documents/IIITD/SM/Assignment
6$ gawk -f B4.awk lab6assignmentdata_20236.csv | sort | uniq
```

```
Dark Green
```

```
Green
```

```
Orange
```

```
Rating color
```

```
Red
```

```
White
```

```
Yellow
```

**5. #!/bin/awk**

```
BEGIN{FPAT = "([^\,]*)|(\"[^\"]\"+\\")"}
{if ($20 ~ "Excellent") {print $0}}
```

```
akshala@akshala-HP-Laptop-15-bs1xx:~/Documents/IIITD/SM/Assignment  
6$ gawk -f B5.awk lab6assignmentdata_20236.csv  
6317637,Le Petit Souffle,162,Makati City,"Third Floor, Century City Mall,  
Kalayaan Avenue, Poblacion, Makati City","Century City Mall, Poblacion,  
Makati City","Century City Mall, Poblacion, Makati City, Makati  
City",121.027535,14.565443,"French, Japanese, Desserts",1100,Botswana  
Pula(P),Yes,No,No,No,3,4.8,Dark Green,Excellent,314
```