

CA1: R PROGRAMMING

SET 1: NON PLACEMENTS

ROLLNO:30

NAME:SUNDARAM

Q.1 From Titanic dataset Analyze following

- i. Using string functions find data for 4 families that were travelling in Titanic ship.
- ii. Find the survived ratio for each family that you have analyzed.

Solution—

```
a=read.csv(file.choose(),sep=",")
```

```
f1=a[which(a$ID>1 & a$ID<=5),]
```

```
f2=a[which(a$ID>99 & a$ID<=105),]
```

```
f3=a[which(a$ID>218 & a$ID<=223),]
```

```
f4=a[which(a$ID>234 & a$ID<=238),]
```

f1

f2

f3

f4

Q.2 Create an array of two 3x3 matrices each with 3 rows, 3 columns and display them.

Q.3 For following data get the persons in IT department whose salary is greater than 579

Id	Name	Salary	Start_date	Dept
1	Rick	623.3	2012-01-01	IT
3	Michelle	611.0	2014-11-15	IT
6	Nina	578.0	2013-05-21	IT

Solution---

```
Start_date=c("2012-01-01","2014-11-15","2013-05-21")
```

```
ID=c(1,3,6)
```

```
NAME=c("Rick","Michelle","Nina")
```

```

Dept=c("IT","IT","IT")
salary=c(623.3,611,578)
d=data.frame(ID,NAME,Start_date,Dept,salary)
d1=subset(d,d$salary>579,select = NAME)
d1

```

Q.4 Using ACME DATASET analyzes the following:

- i. Find the percent change occurred in Gross sales after every 2 Months for ACME DATASET.

```

a=read.csv(file.choose(),sep=",")

t1=c()
j=1
for(i in seq(1,nrow(a),2))
{
  t1[j]<-(a[i+1,2]-a[i,2])/a[i,2]*100
  t1[j]
  j=j+1
}

```

- ii. Do the investment in Ad Costs effect Gross sales or the investment in Social Network Cost is required.

Sol—
`plot((a$Gross.sales),(a$Ad.costs))`

Yes investment in Ad costs effect gross sales

- iii. Is the average gross sale have achieved the average target sale?

Sol—
`t1=0`
`t2=0`
`j=1`
`for(i in seq(1,nrow(a)))`
`{`
 `t1=t1+a[i,2]`
 `t2=t2+a[i,3]`
`}`

```

}
t3=t1/nrow(a)
t4=t2/nrow(a)
if(t3==t4){
  print("YES")
}else{
  print("NO")
}

```

- iv. After achieving target sale do the company increase their investment amount and decreasing their selling price, would this strategy is helping company for achieving target sales in next coming month.

Sol—

YES.

- v. Find In which Month Company gets the maximum profit and which month gets the least. In those month which factor have participated in earning profit.

September

January

Ad costs