# week1 assignment

placement <- read.csv("C:/Users/rshars/Documents/placement\_data.csv")

placement$Placement.Date <- as.Date(placement$Placement.Date)

placement$Company <- as.factor(placement$Company)

# 1. Counting the number of students with salary higher than the mean salary

sum(placement$SALARY > mean(placement$SALARY,na.rm = T),na.rm = T)

# 2. Subset the data into a new data frame with students who were offered salaries more than 3000 and less than 6000

placement1 <- placement[placement$SALARY >= 3000 & placement$SALARY <= 6000 & !(is.na(placement$SALARY)),]

# OR

placement2 <- subset(placement,placement$SALARY >=3000 & placement$SALARY <= 6000)

# 3. Subset the data such that none of the rows contain a missing value

placement3 <- na.omit(placement1)

# 4. Form a frequency table of the different job profiles that were offered

table(placement$JOB.TYPE)

# 5. Form a bi-variate frequency table of all the companies and profiles

table(company = placement$Company,profile=placement$JOB.TYPE)

# 6. Did any of the students get multiple job offers

max(table(placement$StudID))

# Ans : No student got multiple offers

# 7. Which month recorded the maximum number of placements

names(which.max(table(months(placement$Placement.Date))))

# 8. Subset the data with respect to the 4 quartiles of salary offered, and append the datasets into a list

placement3$quartiles <- ifelse(placement3$SALARY <= quantile(placement3$SALARY,probs=0.25),"1st",

ifelse(placement3$SALARY <= quantile(placement3$SALARY,probs=0.5) &

placement3$SALARY > quantile(placement3$SALARY,probs=0.25),"2nd",

ifelse(placement3$SALARY <= quantile(placement3$SALARY,probs=0.75) &

placement3$SALARY >= quantile(placement3$SALARY,probs=0.5),"3rd","4th")))

list(list1 = placement3[placement3$quartiles=="1st",],

list2 = placement3[placement3$quartiles=="2nd",],

list3 = placement3[placement3$quartiles=="3rd",],

list4 = placement3[placement3$quartiles=="4th",])

# 9. Which profile had the highest median salary offered

aggregate(SALARY~JOB.TYPE,"median",data=placement)

# Ans : Security

# 10. According to you was the company allotment (Day of Placement) rightly made in this college?

company <- aggregate(SALARY~Placement.Date,"max",data=placement)

which.max(company$SALARY)

# Ans : NO