data=cars

data

summary(data)

v1=var(data$speed)   
v1

v2=var(data$dist)

v2

covariance=cov(data$speed,data$dist)

covariance

corr=covariance/(sd(data$speed)\*sd(data$dist))

corr

cor.test(data$speed,data$dist)

cor.test(data$speed,data$dist,method=”pearson”)

cor.test(data$speed,data$dist,method="spearman")

plot(data$speed,data$dist)

regression1=lm(data$speed~data$dist)

regression1

abline(regression1)

summary(regression1)

regression2=lm(data$dist~data$speed)

regression2

abline(regression2)

summary(regression2)

**empid**=c(1,2,3,4,5,6,7,8,9,10,11,12,13,14,15)

empid

**age**=c(30,37,45,32,50,60,35,32,34,43,32,30,43,50,60)

age

**gender**=c(0,1,0,1,1,0,0,1,0,0,1,1,0,0)

gender

**status**=c(1,1,2,2,1,1,1,2,2,1,2,1,2,1,2)

status

**empinfo**=data.frame(empid,age,gender,status)

empinfo

**empinfo$gender**=factor(empinfo$gender,labels=c("male","female"))

empinfo$gender

**empinfo$status**=factor(empinfo$status,labels=c("staff","faculty"))

empinfo$status

empinfo

**male**=subset(empinfo,empinfo$gender=="male")

male

**female**=subset(empinfo, empinfo$gender=='female')

female

summary(empinfo)

summary(male)

summary(female)

summary(age)

**table1**=table(empinfo$gender)

table1

**table2**=table(empinfo$status)

table2

**table3**=table(empinfo$gender, empinfo$status)

table3

**plot**( empinfo$age , type="l", main="Age of employees", xlab="empid", ylab="age in years", col="blue")

**pie**(table1)

**barplot(** table3 , beside=T ,xlim=c(1,15), ylim=c(0,5), col=c("blue", "red")) **legend**("topright",legend=rownames(table3),fill=c('blue','red'), bty="n")

**boxplot**(empinfo$age~empinfo$status,col=c('red','blue'))