1. mutate(data,X\_square=(data$X^2))

a) gr\_set<-group\_by(data,FFMC)

summarise(gr\_set, sum(FFMC),mean(FFMC),median(FFMC), sd(FFMC))

b) gr\_set<-group\_by(data,DMC)

summarise(gr\_set, sum(DMC), mean(DMC), median(DMC), sd(DMC))

c) gr\_set<-group\_by(data,DC)

summarise(gr\_set, sum(DC),mean(DC), median(DC),sd(DC))

2.mm<-mutate(data,Month="Aug")

3.mutate(data,Day\_Num=day)

4. cor(data$X,data$Y)

5. summarise(group\_by(data,month),sum\_rain=sum(rain),sum\_wind=sum(wind),

Count=n())

6. summarise(group\_by(data,month), mean\_rain=mean(rain),mean\_wind=mean(wind),count=n())

7.Number of records for each month:

arrange(data,month)

8.No of records for each month-day:

Arrange(data,desc(month),day)