```
setwd("C:\Users\DELL\Desktop\DS\DataScience_2019501097\Data Mining\Exam Solutions\Final exam") getwd()

data = read.csv("BSE_Sensex_Index.csv", header = TRUE)

library(dplyr) newdata = mutate(data, sgr = lead((lag(Close) - Close) / Close))

lastcol = nrow(newdata) x = newdata$sgr[lastcol-1] y = newdata$sgr[lastcol-2] z = newdata$sgr[lastcol-3] newdata$sgr[lastcol] = mean(x,y,z)

sgrmean <- mean(newdata$sgr, na.rm=TRUE) sgrsd <- sd(newdata$sgr,na.rm=TRUE) p<-(newdata[,8] - sgrmean) / sgrsd sort(p) newdata$zscores <- p

date<-subset(newdata[,1], newdata[,"zscores"] >= 3.0 | newdata[,"zscores"] <= -3.0) View(date)
```