source("DataLoad.R")

library(data.table)

library(dplyr)

library(lubridate)

###### clean QC data ##########

summary(AllData$Age)

str(AllData)

AllData$Age <- gsub("[(]|[)]","",AllData$Age)

AllData$Age <- as.numeric(AllData$Age)

class(AllData$Age)

### filter #############

unique(AllData$Flag)

unique(Ver1$Gender)

AllDataGenger <- filter(AllData, Gender %in% c("F","M"))

AllDataAge <- filter(AllDataGenger,Age < 200)

AllDataFlag <- AllDataAge[!grepl("Q|R|S",AllDataAge$Flag),]

head(AllDataFlag)

CreBunTableDF<-data.frame(ItemName=c("Creatinine","Creatinine(B)","BUN","BUN(B)","BUN (B)","Glucose(AC)","Na(Sodium)","K(Potassium)","Cl(Chloride)","Ca(Calcium)","Glucose(PC)","Mg(Magnesium)"),

NewItemName=c("Creatinine","Creatinine","BUN","BUN","BUN","Glucose(AC)","Na(Sodium)","K(Potassium)","Cl(Chloride)","Ca(Calcium)","Glucose(PC)","Mg(Magnesium)" ))

AllDataFlag <- left\_join(AllDataAge,CreBunTableDF,by="ItemName")

############# test code ############

test <- AllDataAge[c(1:20000,40000:50000),]

test <- test[!grepl("G|O",test$Source),]

head(test)

test <-as.data.table(test)

test[!grepl("G",test$Source),]

test %>% filter(Source != "G" | Source != "X")

###################################

###### step: arrange → group-by → mutate (delta result/delta date) ################

# Arrange (ChartNo-Item-Date)

AllDataArrange <- arrange(AllDataFlag,ChartNo,ItemName,Date)

head(AllDataArrange)

unique(AllDataArrange$Flag)

# group-by (ChartNo and ItemName)

AllDataGroup <- group\_by(AllDataArrange%>%head(100),ChartNo,ItemName) %>%

mutate(LagDate=lag(DateTime,1,NA))%>%

mutate(DeltaDay = difftime(DateTime, LagDate, units = c("days")))

class(AllDataGroup$DeltaDay)

as.hms.diff(AllDataGroup$DeltaDay)

as.numeric(AllDataGroup$DeltaDay)

## ues difftime()

test <- difftime(AllDataGroup$DeltaDay, )