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library(tidyverse)
library(tidytext)
library(glue)
library(stringr)
filename <- glue("Project.csv",sep=" ")
filename <- trimws(filename)
fileText <- glue(read_file(filename))
fileText <- gsub("\\\\$", "", fileText)
tokens <- data_frame(text = fileText) %>% unnest_tokens(word, text)
tokens %>%
  inner_join(get_sentiments("bing")) %>%
  count(sentiment) %>%
  spread(sentiment, n, fill=0) %>%
  mutate(sentiment = positive / (positive + negative))
filename <- glue("iPhone7.csv",sep=" ")
filename <- trimws(filename)
fileText <- glue(read_file(filename))
fileText <- gsub("\\\\$", "", fileText)
tokens <- data_frame(text = fileText) %>% unnest_tokens(word, text)
tokens %>%
  inner_join(get_sentiments("bing")) %>%
  count(sentiment) %>%
  spread(sentiment, n, fill=0) %>%
  mutate(sentiment = positive / (positive + negative))
filename <- glue("iPhone7Plus.csv",sep=" ")
filename <- trimws(filename)
fileText <- glue(read_file(filename))
fileText <- gsub("\\\\$", "", fileText)
tokens <- data_frame(text = fileText) %>% unnest_tokens(word, text)
tokens %>%
  inner_join(get_sentiments("bing")) %>%
  count(sentiment) %>%
  spread(sentiment, n, fill=0) %>%
  mutate(sentiment = positive / (positive + negative))
filename <- glue("iPhone8.csv",sep=" ")
filename <- trimws(filename)
fileText <- glue(read_file(filename))
fileText <- gsub("\\\\$", "", fileText)
tokens <- data_frame(text = fileText) %>% unnest_tokens(word, text)
tokens %>%
  inner_join(get_sentiments("bing")) %>%
  count(sentiment) %>%
  spread(sentiment, n, fill=0) %>%
  mutate(sentiment = positive / (positive + negative))
filename <- glue("iPhone8Plus.csv",sep=" ")
filename <- trimws(filename)
fileText <- glue(read_file(filename))
fileText <- gsub("\\\\$", "", fileText)
tokens <- data_frame(text = fileText) %>% unnest_tokens(word, text)
tokens %>%
  inner_join(get_sentiments("bing")) %>%
  count(sentiment) %>%
  spread(sentiment, n, fill=0) %>%
  mutate(sentiment = positive / (positive + negative))
filename <- glue("iPhoneX.csv",sep=" ")
filename <- trimws(filename)
fileText <- glue(read_file(filename))
fileText <- gsub("\\\\$", "", fileText)
tokens <- data_frame(text = fileText) %>% unnest_tokens(word, text)
tokens %>%
  inner_join(get_sentiments("bing")) %>%
  count(sentiment) %>%
  spread(sentiment, n, fill=0) %>%
  mutate(sentiment = positive / (positive + negative))
filename <- glue("iPhoneXS.csv",sep=" ")
filename <- trimws(filename)
fileText <- glue(read_file(filename))
fileText <- gsub("\\\\$", "", fileText)
tokens <- data_frame(text = fileText) %>% unnest_tokens(word, text)
tokens %>%
  inner_join(get_sentiments("bing")) %>%
  count(sentiment) %>%
  spread(sentiment, n, fill=0) %>%
  mutate(sentiment = positive / (positive + negative))
filename <- glue("iPhoneXSMax.csv",sep=" ")
filename <- trimws(filename)
fileText <- glue(read_file(filename))
fileText <- gsub("\\\\$", "", fileText)
tokens <- data_frame(text = fileText) %>% unnest_tokens(word, text)
tokens %>%
  inner_join(get_sentiments("bing")) %>%
  count(sentiment) %>%
  spread(sentiment, n, fill=0) %>%
  mutate(sentiment = positive / (positive + negative))
data<-read.csv("sentiment.csv")
fit_1<-lm(iPhone_Model.Sentiment,data=data)
predict(fit_1,data.frame(Sentiment=0.673))
predict(fit_1,data.frame(Sentiment=0.718))
predict(fit_1,data.frame(Sentiment=0.72))

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predict(fit_1,data.frame(Sentiment=0.821))
predict(fit_1,data.frame(Sentiment=0.65))
predict(fit_1,data.frame(Sentiment=0.9))
predict(fit_1,data.frame(Sentiment=0.865))
predict(fit_1,data.frame(Sentiment=0.78))
g_range<-range(0,7)
barplot(data$Predicted.sales.1000.,main="Sales Prediction",xlab = "iPhone Models",ylab = "Sales in 1000",names.arg =
c("7","7Plus","8","8Plus","X","XR","XS","XSMax"),ylim = g_range)
legend("topleft",c("estimated sales = 35,963"))
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