Algorithm\_comparision

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#packages required

library(ggplot2)  
library(microbenchmark)

#test string

source("C:/Users/udai/Documents/Master\_thesis\_sudha/HybridPackage/R/HybridPackage.R")

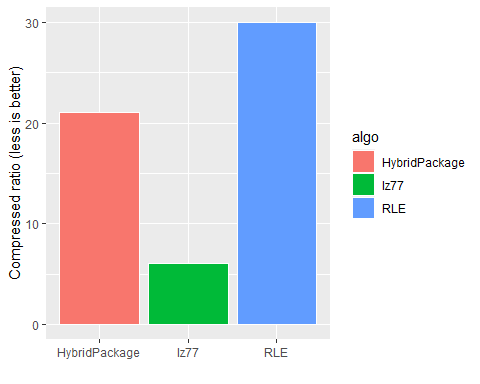
## Loading required package: stringi

test <- "abacabacabadaca"  
y1 <- RLE\_compressor(test)  
y2 <- lz77\_compressor(test)  
y3 <- Hybrid\_compressor(test)

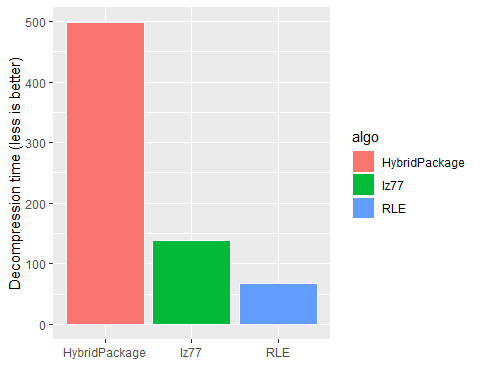
## Including Plots

You can also embed plots, for example:

#compression Ratio  
alldata1 <- data.frame (algo = c("RLE", "lz77", "HybridPackage"),ratio = c(length(y1), length(y2), length(y3) / length(test)))  
ggplot(alldata1, aes(x = algo, fill = algo, y = ratio))+geom\_bar(color = "white", stat = "identity")+xlab("") + ylab("Compressed ratio (less is better)")



#decompression speed  
bm <- microbenchmark(RLE\_decompressor(y1),lz77\_decompressor(y2),Hybrid\_decompressor(y3),times = 1000)  
  
alldata1$decompression <- summary(bm)$median  
ggplot(alldata1, aes(x = algo, fill = algo, y = decompression))+geom\_bar(color = "white", stat = "identity")+xlab("") + ylab("Decompression time (less is better)")



#compression speed  
bm2 <- microbenchmark(RLE\_compressor(test),lz77\_compressor(test),Hybrid\_compressor(test),times = 20)  
  
alldata1$compression <- summary(bm2)$median  
ggplot(alldata1, aes(x = algo, fill = algo, y = compression))+geom\_bar(color = "white", stat = "identity")+xlab("") + ylab("Compression time (less is better)")

