***A1: Business Case Presentation (video submission assignment)***

***TEAM7***

INSIGHT 1

# importing dataset from the working directory

df <- read\_excel("/Users/signet/Desktop/Air France Case.xls", sheet = 2)

View(df)

kdata <- read\_excel("/Users/signet/Desktop/Air France Case.xls", sheet = 3)

View(kdata)

# Convert the blanks to "NA"

df[df==""] <- NA

kdata[kdata==""] <- NA

# Check for missing values using the sapply() function

sapply(df, function(x) sum(is.na(x)))

sapply(kdata, function(x) sum(is.na(x)))

df <- within(df, ROA <- Amount/`Total Cost`)

df$Revenue <- df$Amount - df$`Total Cost`

df$ROA <- as.numeric(df$Revenue / df$`Total Cost`)

df[df==""] <- 0

df[df=="Inf"] <- 0

# Bar chart

x <- c('Kayak', 'MSN-Global', 'MSN - US','Yahoo-US', 'Google-Global', 'Overture-Global', 'Google-US', 'Overture-US')

y <- c(64.5, 11.6, 2.18, 11.3, 5.69, 5.48, 2.22, 2.22)

data <- data.frame(x, y)

#The alphabetic default order so we need to code the following:

data$x <- factor(data$x, levels = data[["x"]])

plt <- plot\_ly(data, x= ~x, y= ~y, type = "bar", name = "Return on Advertising", color = I("blue"), alpha = 0.5) %>%

layout(title = "Return On Advertising",

xaxis = list(title = ""),

yaxis = list(title = ""))

plt

INSIGHT 2

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############ PUBLISHER VS TOTAL VOLUMEN OF BOOKINGS ############

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## CHECK TYPE OF VARIABLE ##

is.numeric(data\_airfrance$`Publisher ID`) # It's no numeric, it's character

is.numeric(data\_airfrance$`Total Volume of Bookings`) # It's numeric

## DELETE THE FIRST LETTER AND CONVERT INTO NUMERIC ##

data\_airfrance$`Publisher ID` <- as.numeric(gsub("K", "",data\_airfrance$`Publisher ID`))

is.numeric(data\_airfrance$`Publisher ID`) # Now it's numeric

View(data\_airfrance)

## GROUP PUBLISHER NAME BY BOOKINGS ##

sum\_data <- aggregate(data\_airfrance$`Total Volume of Bookings`,

by = list(data\_airfrance$`Publisher Name`), FUN = sum)

publisher\_bookings <- print(sum\_data)

publisher\_bookings <- as.data.frame(publisher\_bookings)

View(publisher\_bookings)

## CREATION OF THE 2 CHARTS ##

library(ggplot2)

ggplot(publisher\_bookings, aes(x = Group.1, y = x)) +

geom\_bar(stat = "identity", position = "dodge") +

labs(title = "Publisher Bookings", y = "Bookings", x = "Publisher") +

theme\_minimal()

INSIGHT 3

hist(Air$`Engine Click Thru %`)

THIS IS THE LINE OF CODE FOR THE GRAPH