db\_code1

# Loading formattable to access the percent() function used in the matrix below   
library(formattable)

## Warning: package 'formattable' was built under R version 3.4.4

library(readr)

## Warning: package 'readr' was built under R version 3.4.4

Working2\_DB\_2 <- read\_csv("C:/Users/vsoopr1/Desktop/R Projects/dashboard/Working2\_DB\_2.csv")

## Warning: Duplicated column names deduplicated: 'dall prop' => 'dall  
## prop\_1' [57], 'dall vol' => 'dall vol\_1' [58], 'dall units' => 'dall  
## units\_1' [59], 'dall price sf' => 'dall price sf\_1' [60], 'dall cap rate'  
## => 'dall cap rate\_1' [61], 'la prop' => 'la prop\_1' [77], 'la vol' => 'la  
## vol\_1' [78], 'la units' => 'la units\_1' [79], 'la price sf' => 'la price  
## sf\_1' [80], 'la cap rate' => 'la cap rate\_1' [81]

## Parsed with column specification:  
## cols(  
## .default = col\_double(),  
## Year = col\_integer()  
## )

## See spec(...) for full column specifications.

data\_1 <- data.frame(Working2\_DB\_2)

We note that the model used for the excel template uses the following key:

Markets key:

New York : nyc  
San Francisco: sf  
Washington DC: dc  
Boston: bos  
San Jose: sj  
Los Angeles: la  
San Diego: sd  
Seattle: sea  
Houston: hous  
Austin: aus  
Oakland: oak  
Dallas: dal  
Portland: port  
Raleigh/Durham: rd  
Nashville: nash  
Denver: den  
Salt Lake City: slc  
Pittsburgh: pitts  
Atlanta: atl

Metrics key:

prop  
vol  
units  
psf  
cap rate

cap\_rate\_calculations <- function() {  
 cap\_rate\_matrix <- c()   
 for (i in c(7, 15, 17)) {  
 x <- c(data$nyc.cap.rate[i], data$sf.cap.rate[i], data$dc.cap.rate[i], data$bos.cap.rate[i], data$sj.cap.rate[i], data$la.cap.rate[i], data$sd.cap.rate[i], data$sea.cap.rate[i], data$hou.cap.rate[i], data$aus.cap.rate[i], data$oak.cap.rate[i], data$dall.cap.rate[i], data$ral.cap.rate[i], data$nash.cap.rate[i], data$slc.cap.rate[i], data$pitts.cap.rate[i], data$alt.cap.rate[i])  
cap\_rate\_avg  
 cbind(cap\_rate\_matrix, x)  
 }  
 return (cap\_rate\_matrix)  
}

cap\_rate\_avg\_2007 <- c(data\_1$nyc.cap.rate[7], data\_1$sf.cap.rate[7], data\_1$dc.cap.rate[7], data\_1$bos.cap.rate[7], data\_1$sj.cap.rate[7], data\_1$la.cap.rate[7], data\_1$sd.cap.rate[7], data\_1$sea.cap.rate[7], data\_1$hou.cap.rate[7], data\_1$aus.cap.rate[7], data\_1$oak.cap.rate[7], data\_1$dall.cap.rate[7], data\_1$ral.cap.rate[7], data\_1$nash.cap.rate[7], data\_1$slc.cap.rate[7], data\_1$pitts.cap.rate[7], data\_1$alt.cap.rate[7])  
  
  
Cap\_rate\_avg\_2015 <- c(data\_1$nyc.cap.rate[15], data\_1$sf.cap.rate[15], data\_1$dc.cap.rate[15], data\_1$bos.cap.rate[15], data\_1$sj.cap.rate[15], data\_1$la.cap.rate[15], data\_1$sd.cap.rate[15], data\_1$sea.cap.rate[15], data\_1$hou.cap.rate[15], data\_1$aus.cap.rate[15], data\_1$oak.cap.rate[15], data\_1$dall.cap.rate[15], data\_1$ral.cap.rate[15], data\_1$nash.cap.rate[15], data\_1$slc.cap.rate[15], data\_1$pitts.cap.rate[15], data\_1$alt.cap.rate[15])  
  
  
Cap\_rate\_avg\_2017 <- c(data\_1$nyc.cap.rate[17], data\_1$sf.cap.rate[17], data\_1$dc.cap.rate[17], data\_1$bos.cap.rate[17], data\_1$sj.cap.rate[17], data\_1$la.cap.rate[17], data\_1$sd.cap.rate[17], data\_1$sea.cap.rate[17], data\_1$hou.cap.rate[17], data\_1$aus.cap.rate[17], data\_1$oak.cap.rate[17], data\_1$dall.cap.rate[17], data\_1$ral.cap.rate[17], data\_1$nash.cap.rate[17], data\_1$slc.cap.rate[17], data\_1$pitts.cap.rate[17], data\_1$alt.cap.rate[17])  
  
cap\_rates\_avg <- cbind(cap\_rate\_avg\_2007, Cap\_rate\_avg\_2015, Cap\_rate\_avg\_2017)  
rownames(cap\_rates\_avg) <- c("NYC", "SanFrancisco", "DC", "Boston", "San Jose", "LA", "San Diego", "Seattle", "Houston", "Austin", "Oakland", "Dallas", "Raleigh", "Nashville", "Salt Lake City", "Pittsburgh", "Atlanta")  
percent(cap\_rates\_avg)

## cap\_rate\_avg\_2007 Cap\_rate\_avg\_2015 Cap\_rate\_avg\_2017  
## NYC 4.00% 8.00% 5.00%   
## SanFrancisco 6.00% 6.00% 5.00%   
## DC 6.00% 6.00% 5.00%   
## Boston 6.00% 5.00% 5.00%   
## San Jose 5.00% 5.00% 6.00%   
## LA 6.00% 6.00% 6.00%   
## San Diego 6.00% 6.00% 7.00%   
## Seattle 6.00% 7.00% 6.00%   
## Houston 5.00% 8.00% 7.00%   
## Austin 7.00% 7.00% 6.00%   
## Oakland 7.00% 6.00% 6.00%   
## Dallas 6.00% 7.00% 7.00%   
## Raleigh 7.00% 6.00% 0.00%   
## Nashville 7.00% 0.00% 0.00%   
## Salt Lake City 7.00% 8.00% 9.00%   
## Pittsburgh 9.00% 7.00% 7.00%   
## Atlanta 7.00% 7.00% 6.00%