Case Project 1

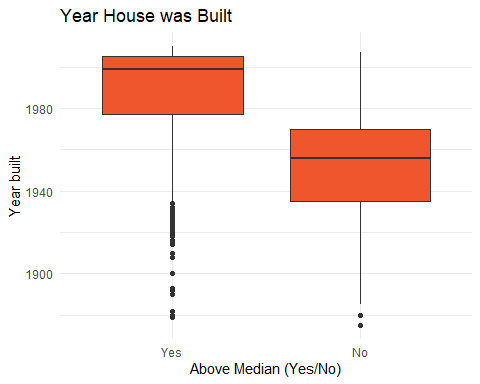
library(tidyverse)  
library(tidymodels)  
library(GGally)  
library(MASS)  
library(esquisse)  
library(ggcorrplot)  
library(gridExtra)

am = read\_csv("ames\_student.csv")

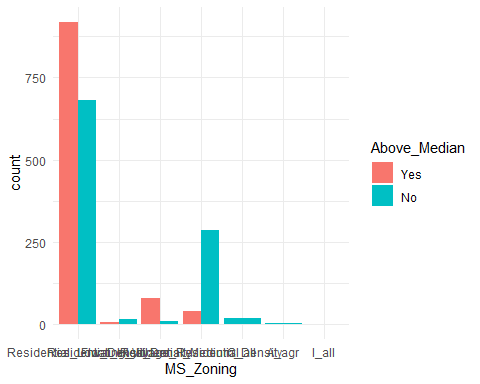
str(am)  
summary(am)

am = am %>% mutate\_if(is.character,as\_factor)  
str(am)  
summary(am)

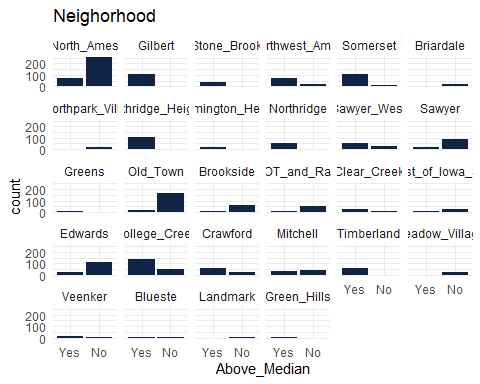
ggplot(am) +  
 aes(x = Above\_Median, y = Year\_Built) +  
 geom\_boxplot(fill = "#EF562D") +  
 labs(x = "Above Median (Yes/No)",   
 y = "Year built", title = "Year House was Built") +  
 theme\_minimal()



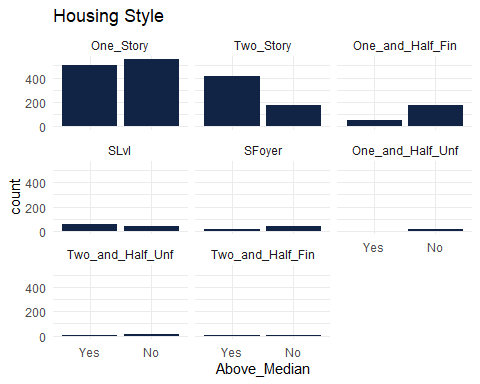
ggplot(am) +  
 aes(x = MS\_Zoning, fill = Above\_Median) +  
 geom\_bar(position = "dodge") +  
 scale\_fill\_hue(direction = 1) +  
 theme\_minimal()



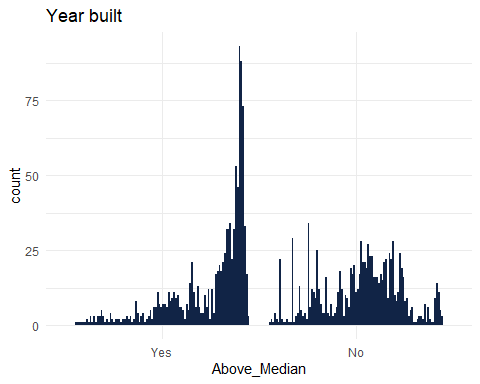
ggplot(am) +  
 aes(x = Above\_Median) +  
 geom\_bar(position = "dodge", fill = "#112446") +  
 labs(title = "Neighorhood") +  
 theme\_minimal() +  
 facet\_wrap(vars(Neighborhood))



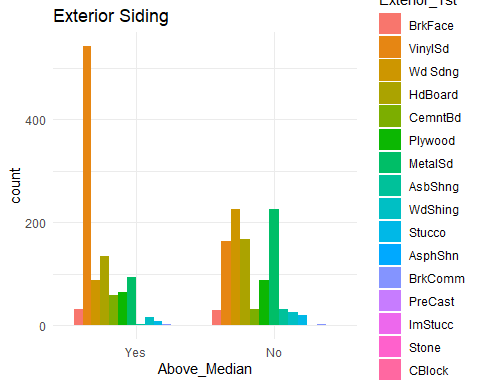
ggplot(am) +  
 aes(x = Above\_Median) +  
 geom\_bar(fill = "#112446") +  
 labs(title = "Housing Style") +  
 theme\_minimal() +  
 facet\_wrap(vars(House\_Style))



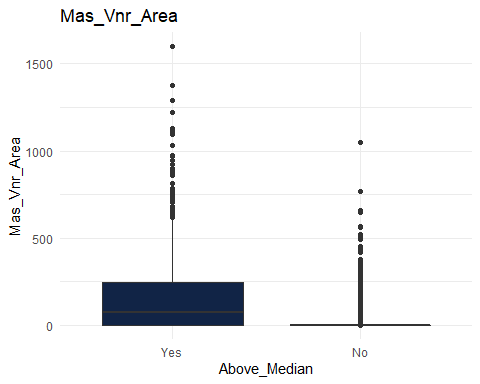
ggplot(am) +  
 aes(x = Above\_Median, group = Year\_Built) +  
 geom\_bar(position = "dodge", fill = "#112446") +  
 labs(title = "Year built") +  
 theme\_minimal()



ggplot(am) +  
 aes(x = Above\_Median, fill = Exterior\_1st) +  
 geom\_bar(position = "dodge") +  
 scale\_fill\_hue(direction = 1) +  
 labs(title = "Exterior Siding") +  
 theme\_minimal()



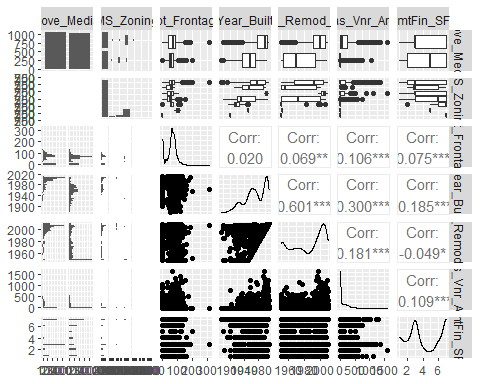
ggplot(am) +  
 aes(x = Above\_Median, y = Mas\_Vnr\_Area) +  
 geom\_boxplot(fill = "#112446") +  
 labs(title = "Mas\_Vnr\_Area") +  
 theme\_minimal()



##esquisser()

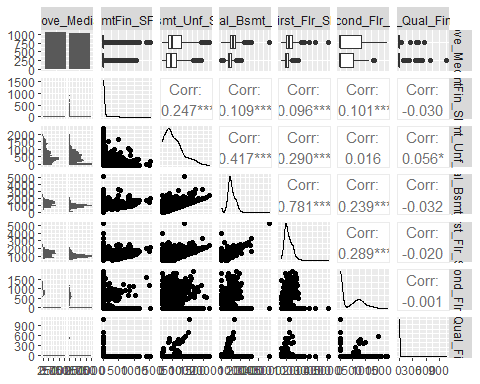
ggpairs(am, columns = c(81,2:3,19:20,26,34))

## `stat\_bin()` using `bins = 30`. Pick better value with `binwidth`.  
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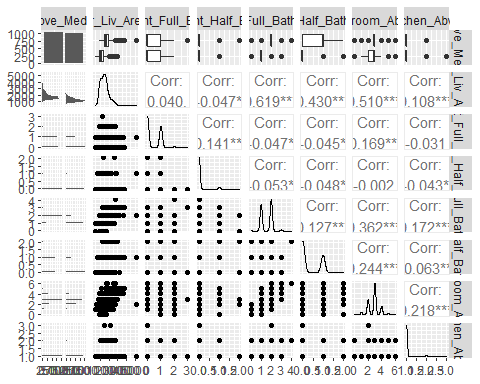
ggpairs(am, columns = c(81,36:38,43:45))

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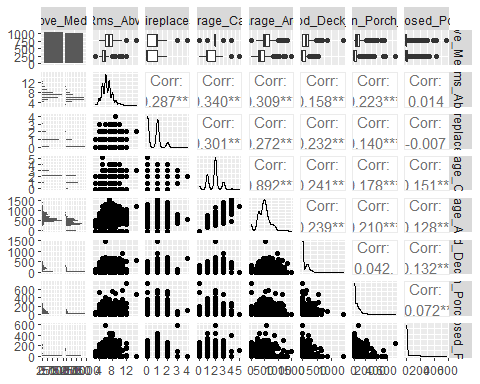
ggpairs(am, columns = c(81,46:52))

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ggpairs(am, columns = c(81,54,56,60:61,65:67))

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ggpairs(am, columns = c(81,67:70, 74:76, 79:80))

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