```
library(tidyverse)

df <- read.csv("Sampledata2.csv")

df <- df %>% mutate(RangeGroup=case_when(CrimeRate < 250
~ "low crime", CrimeRate >= 250 & CrimeRate <= 500 ~
"medium crime", CrimeRate > 500 ~ "high crime"))

n <- length(unique(df$Year))
col = colorspace::diverge_hcl(n)
col

col1=c("green","blue","red")
col1

ggplot(df, aes(x=CrimeRate, color=as.factor(Year),
fill=as.factor(Year))) +
  geom_histogram(position="dodge", binwidth=100, bins=5)
+
  scale_color_manual(values=col) +
  scale_fill_manual(values=col) +
  labs(title="Crime Rate by Year", x="Crime Rate",
y="Number of states with this crime rate per year") +
  theme_classic()

ggplot(df, aes(x=CrimeRate, color=as.factor(RangeGroup),
fill=as.factor(RangeGroup))) +
  geom_histogram(position="dodge") +
  scale_color_manual(values=col1) +
  scale_fill_manual(values=col1) +
  labs(title="Crime Rate by Range Grouping", x="Crime
Rate", y="Number of years per state by crime rate") +
  theme_classic()
```