Model Proposal

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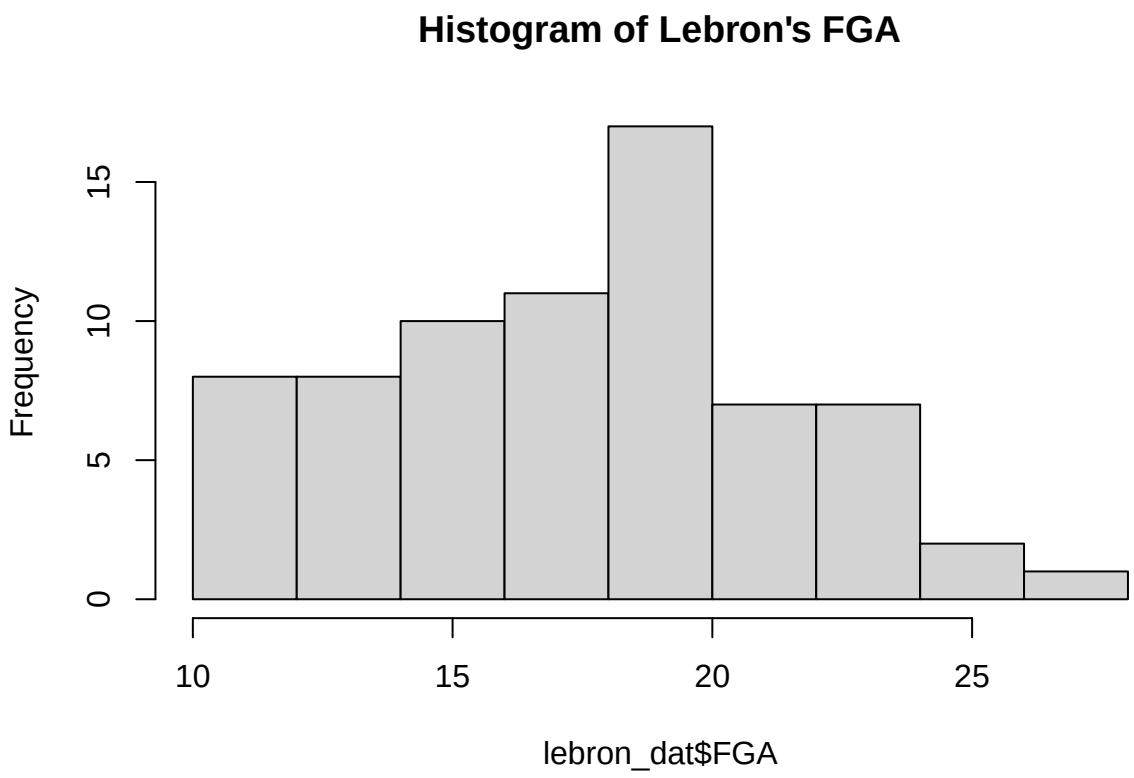
What I want is a scatter plot. Y is FGA, X is opposing team name, and each dot represents one of the games played against them.

```
df = distinct(original_tbl[,c(2,3)])

game_reigstry = df %>%
  group_by(GAME_ID) %>%
  arrange(TEAM_ID, .by_group = TRUE) %>%  # Optional: keeps order consistent
  mutate(team_slot = paste0("TEAM", row_number(), "_ID")) %>%
  pivot_wider(
    names_from = team_slot,
    values_from = TEAM_ID
  )

original_tbl$Opposing_Team = NA

for (i in 1:nrow(original_tbl)) {
  for (j in 1:nrow(game_reigstry)) {
    if (original_tbl$GAME_ID[i] == game_reigstry$GAME_ID[j]){
      if (original_tbl$TEAM_ID[i] == game_reigstry$TEAM1_ID[j]) {
        original_tbl$Opposing_Team[i] = game_reigstry$TEAM2_ID[j]
      }
      if (original_tbl$TEAM_ID[i] == game_reigstry$TEAM2_ID[j]) {
        original_tbl$Opposing_Team[i] = game_reigstry$TEAM1_ID[j]
      }
    }

  }
}

lebron_dat = original_tbl[original_tbl$PLAYER_ID %in% 2544, ] # lebron 2544 and steph curry 201939
```

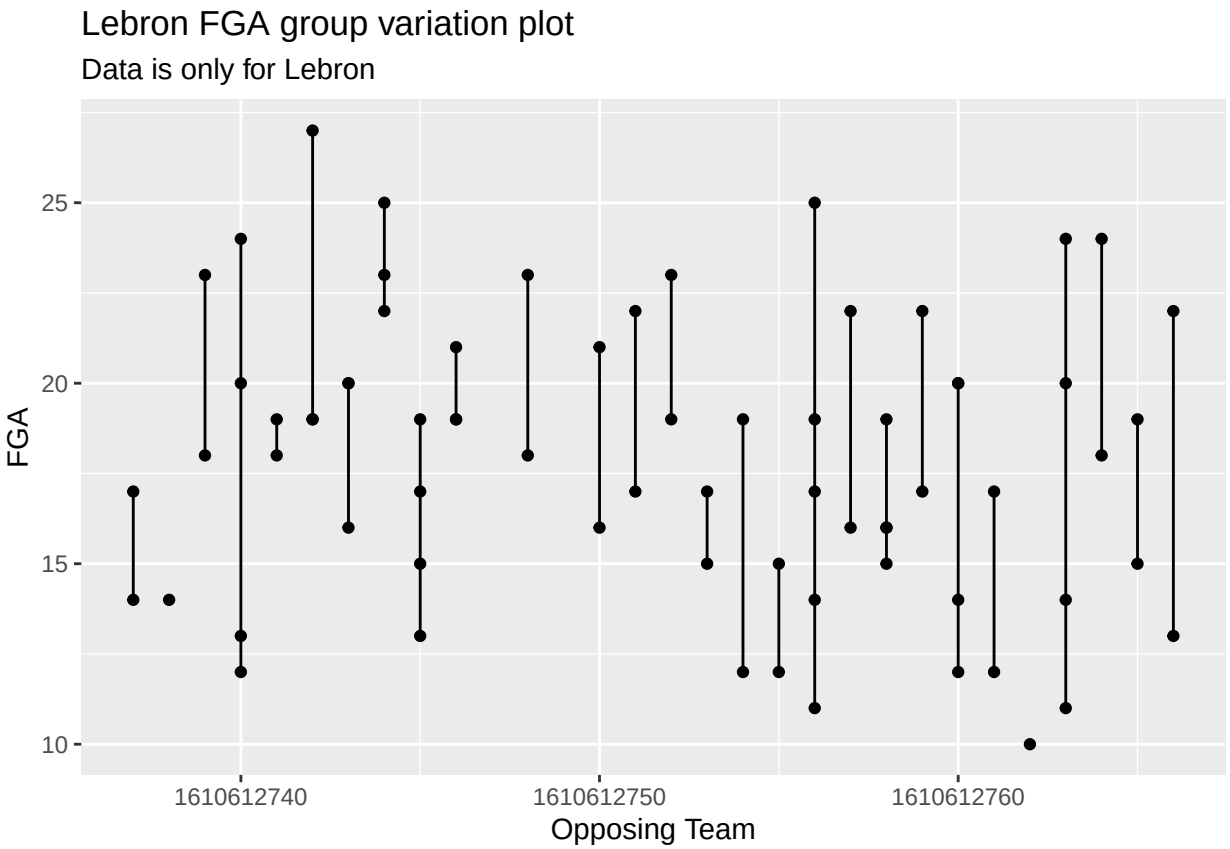
Examining FGA and FGM

```
team_ids = lebron_dat[lebron_dat$PLAYER_ID == 2544,c(2,3)]

hist(lebron_dat$FGA, main="Histogram of Lebron's FGA")
```




```
# hist(rpois(1000, 10))
```

```
library(ggplot2)
df_lines <- lebron_dat %>%
  group_by(Opposing_Team) %>%
  arrange(FGA) %>%
  mutate(index = row_number())  # create a pseudo-x to keep line ordering

ggplot(df_lines, aes(x = FGA, y = Opposing_Team, group = Opposing_Team)) +
  geom_point(aes(x = Opposing_Team, y = FGA)) +
  geom_line(aes(x = Opposing_Team, y = FGA, group = Opposing_Team), orientation = "FGA") +
  labs(
    title = "Lebron FGA group variation plot",
    subtitle = "Data is only for Lebron",
    x = "Opposing Team",
    y = "FGA"
  )
```


Lebron FGA group variation plot
Data is only for Lebron
FGA
25
20
15
10
1610612740
1610612750
1610612760
Opposing Team