

7. Load HairEyeColor dataset in R and plot categorical data using mosaic plot.

Aim: To visualize categorical multivariate data using mosaic plots.

- To analyze the HairEyeColor dataset using mosaic plots.

```
data(HairEyeColor)
df <- as.data.frame(HairEyeColor)
set.seed(123)
na_indices <- sample(1:nrow(df), 10)
df$Eye[na_indices] <- NA
get_mode <- function(v) {
  uniqv <- na.omit(unique(v))
  uniqv[which.max(tabulate(match(v, uniqv)))]
}
mode_eye <- get_mode(df$Eye)
df$Eye[is.na(df$Eye)] <- mode_eye
tab <- xtabs(Freq ~ Hair + Eye + Sex, data = df)
library(viridis)
# Use Option D (default viridis)
colors <- viridis(length(tab), option = "C")
mosaicplot(tab,
  main = "Mosaic Plot ",
  col = colors,
  border = "white",
  las = 1)
```