```
library(pheatmap)
library(RColorBrewer)
raw_data <- read.csv2(file.choose(), header = TRUE, row.names = 1)
raw_data$SD.Bread <- as.numeric(as.character(raw_data$SD.Bread))
raw_data$Control.Bread <- as.numeric(as.character(raw_data$Control.Bread))
raw_data <- raw_data[order(raw_data$Group, -raw_data$SD.Bread), ]
counts <- raw_data[, c("Control.Bread", "SD.Bread")]
row_ann <- data.frame(Class = raw_data$Group)
rownames(row_ann) <- rownames(raw_data)
gaps <- cumsum(rle(as.character(raw_data$Group))$lengths)
gaps <- gaps[-length(gaps)]
ann_colors = list(
  Class = c(
    Acid = "red",
    Alcohol = "skyblue",
    Aldehyde = "orange",
    Ester = "green",
    Phenol = "purple",
    Other = "grey"
  )
)
pheatmap(log10(counts + 1),
         scale = "none",
         cluster_rows = FALSE,
         cluster_cols = FALSE,
         annotation_row = row_ann,
         annotation_colors = ann_colors,
         gaps_row = gaps,
         main = "",
         fontsize_row = 8,
         cellwidth = 30,
         labels_col = c("Control Bread", "SD Bread"),
         color = colorRampPalette(rev(brewer.pal(n = 11, name = "RdYlBu")))(100))
```