Question 2

Jin Barai

```r
# Plot Correlation coefficients between x,y
plot_corr <- function(x, y, x_lab, y_lab) {
  plot(0, 0,
       main = "",
       xlab = x_lab,
       ylab = y_lab,
       xaxt = "n",
       yaxt = "n",
       col = "white")
  text(x = 0, y = 0,
       labels = paste(round(cor(x, y), 4)),
       col = "firebrick",
       cex = 2)
}

# Plot Scatter Plot between x,y variates
plot_scatt <- function(x,y,x_lab,y_lab) {
    plot(x, y,
     main = "",
     xlab = x_lab,
     ylab = y_lab,
     pch = 16,
     col = adjustcolor(col = "firebrick", alpha.f = 0.4))
}

# Plot Histogram between x,y variates
plot_hist <- function (x,lab) {
     hist(x,
     main = "",
     xlab = "",
     ylab = lab,
     col = "gray80")
}


# Matrix Plot
matrix.plot <- function(df) {
  m <- ncol(df)
  n <- nrow(df)
  # m*m columns of plots
  par(mfcol = c(m, m))
  for (i in 1:m) {
    for (j in 1:m) {
      if (i==j) {
```

```
        plot_hist(df[,i],colnames(df)[i])
      }
      else if (i>j) {
        plot_scatt(df[,i],df[,j],colnames(df)[i],colnames(df)[j])
      }
      else {
        plot_corr(df[,i], df[,j], colnames(df)[i], colnames(df)[j])
      }
    }
  }
}
```