

MSSC 6010/Comp. Probability

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MSSC 6010



Department of Mathematical and Statistical Sciences

R: THE STATISTICAL SOFTWARE



MARQUETTE
UNIVERSITY

Be The Difference.

• Download and Install: [Comprehensive R Archive Network](#)

Windows

Mac

The screenshot displays the RStudio environment with the following components:

- Source Editor:** Contains R code for data manipulation and plotting:

```
1 library(ggplot2)
2 source("plots/formatPlot.R")
3
4 view(diamonds)
5 summary(diamonds)
6
7 summary(diamonds$price)
8 aveSize <- round(mean(diamonds$carat), 4)
9 clarity <- levels(diamonds$clarity)
10
11 p <- qplot(carat, price,
12            data=diamonds, color=clarity,
13            xlab="Carat", ylab="Price",
14            main="Diamond Pricing")
15
16 format.plot(p, size=24)
```
- Console:** Shows the output of the code execution, including summary statistics for the 'diamonds' dataset:

```
Min. x: 0.000 Min. y: 0.000 Min. z: 0.000
1st Qu.: 4.710 1st Qu.: 4.720 1st Qu.: 2.910
Median: 5.700 Median: 5.710 Median: 3.530
Mean: 5.731 Mean: 5.735 Mean: 3.539
3rd Qu.: 6.540 3rd Qu.: 6.540 3rd Qu.: 4.040
Max.: 10.740 Max.: 58.900 Max.: 31.800
```
- Plots:** A scatter plot titled "Diamond Pricing" showing Price (Y-axis, 0 to 15000) versus Carat (X-axis, 0.0 to 3.5). The points are colored by clarity, with a legend on the right showing categories: I1, SI2, SI1, VS2, VVS2, VVS1, and IF.
- Workspace:** Lists the loaded objects: 'diamonds' (53940 obs. of 10 variables), 'aveSize' (0.7979), 'clarity' (character [8]), and 'p' (ggplot [8]).
- Files:** Shows the file structure, including 'plots/formatPlot.R'.
- Help:** Displays the R logo and version information (2.0.0).

• RStudio: - [Download](#)



TODAY'S LECTURE

- **Learn R (in Course Website)**
- **Chapters 1 and 2 R Codes (in Course Website)**
- **Homework 1 is posted (in Course Website/D2L)**