Assignment Formatting Guidelines

To ensure the quality and consistency of assignments, please adhere strictly to the following guidelines. These guidelines are unfortunately necessary due to past assignments being submitted with inconsistent layouts, illegible graphs, improperly formatted tables, and irrelevant R scripts, making them difficult to read and evaluate effectively. Following these guidelines also serves as a valuable practice for presenting clear, polished, and professional reports—an important skill for success in any career. Submissions that do not meet these requirements will be penalized.

General Formatting

- Submit your homework as a single PDF file.
- Portrait orientation (not landscape).
- 1-inch margins on all sides.
- Letter size paper (8.5 x 11 inches).
- Do not include a title page but start every exercise (except the first one) on a new page. At the top of the first page, simply state the assignment number and your name.
- Use Times New Roman or Arial for the main text interpreting the results. The font size should be 12-point. Formatting the output from R is different and outlined below.

Content Guidelines

- Do not include your R-script in your submissions. Only include the interpretation and the output from R.
- Ensure all tables and graphs are legible and properly formatted.
- Tables should not be split across multiple pages. Word output formatting to ensure tables fit neatly within the page.
- Graphs must have clearly labeled axes with units (if applicable), a title that succinctly describes the graph, and legible legends (if applicable).
- Avoid excessive clutter or unreadable fonts in graphs.

Output

- Round numerical results to two decimal places, unless otherwise specified.
- Include only relevant portions of output. For example, include the summary of a regression model but omit raw data dumps or unnecessary diagnostic plots unless specifically required.

Interpretation

- Provide a brief and clear interpretation of every output included. For instance:
  - For regression coefficients, explain their meaning in the context of the data.
  - For p-values, state the hypothesis tested and whether it was rejected or not, with reference to the significance level.
  - For plots, highlight key takeaways, trends, or anomalies visible in the graph.
- Do not simply copy R output; contextualize it in your responses. All your answers must include an interpretation of the results. Simply stating the results will not give you any points. The R output is required for each question.

Submission Quality
Ensure all text, tables, and graphs are readable. Avoid overly small fonts, overlapping labels, or poorly cropped images. Use consistent numbering for questions (in order) and parts of questions. Do not include links to external documents. For example, if you are asked to include an Excel file, do not include a link to that file, which may be on a cloud account. Do not include the question text in the document. Do not include screenshots in the submission document.

Formatting of R Output
The R/RStudio output must be formatted using a monospaced font (e.g., Courier New). A monospace font is a typeface in which each character occupies the same amount of horizontal space, making it ideal for aligning text. R/RStudio provides output that is important to include in the report. For example, if a t-test is conducted on whether the price of an all-wheel drive car is higher than its rear-wheel drive equivalent, the following R/RStudio output must be included:

```
      Welch Two Sample t-test

data:  bmw$price by bmw$allwheeldrive
t = 0.3015, df = 25.347, p-value = 0.7655
alternative hypothesis: true difference in means is not equal to 0
95 percent confidence interval:
 -2455.990  3299.062
sample estimates:
mean in group 0 mean in group 1
       29811.79        29390.25
```

The grey background box is not required and is only added to highlight the example. For a second example, suppose that you run a regression with home value as the dependent variable and bedroom as well as square footage as independent variables. The answer could look as follows:

```
Call:
lm(formula = price ~ bed + sqft, data = meridianhills2)

Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept)  70999.55  233324.84   0.304    0.765
bed         -77786.77   62909.96  -1.236    0.235
sqft           221.91      28.09   7.901    1e-06 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 232300 on 15 degrees of freedom
Multiple R-squared:  0.8257,     Adjusted R-squared:  0.8025
F-statistic: 35.53 on 2 and 15 DF,  p-value: 2.039e-06
```

All answers must include an interpretation of the output. Do not simply copy-and-paste the output without explaining the results. Also, do not spent time on typing the values that clearly listed in the R-output in the solution to the exercises. Always start a new page if R output does not fit completely.