R for Data Science Assignment 5

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1. Write R code to install and load the ggplot2 package.
2. Use qplot() to create a simple scatter plot with vectors x and y.
3. Save your plot as a JPEG file using R.
4. Create a line plot connecting points using ggplot and geom_line().
5. Add titles and axis labels to your plot using ggplot2.
6. Demonstrate how to use geom_point() to modify size and shape of points.
7. Explain how to list files in the current working directory.
8. Write code to set a working directory to a specified folder.
9. Read a CSV file from your local system into an R data frame.
10. Read a CSV file from an online source into an R data frame.
11. Create a ggplot scatter plot, and differentiate points by color based on a categorical variable.
12. Demonstrate how to save a plot as a PDF file.
13. Add horizontal and vertical reference lines to a plot using ggplot2.
14. Create a ggplot plot with customized colors for different categories.
15. Write R code to add annotations (text and arrows) to a ggplot plot.
16. Create a ggplot plot with explicitly defined x and y axis limits.
17. Use logical conditions to highlight subsets of points in different colors.
18. Demonstrate adding a legend manually using ggplot2.
19. Create a plot with different line types and widths.
20. Write a code snippet using geom_segment() to add customized line segments to your plot.
21. Write a function to dynamically read and plot data from a user-selected file.
22. Demonstrate the combined usage of geom_point, geom_line, and geom_hline in a single ggplot.
23. Create a customized legend using manual scales and guides in ggplot2.
24. Write R code that handles missing values while reading external data into a data frame.
25. Construct a ggplot that categorizes points into multiple groups based on two numeric conditions.
26. Create a complex ggplot visualization that includes multiple geoms and a theme customization.
27. Write code to plot data points with condition-based shapes and colors using ggplot.
28. Develop an R function that saves plots in both JPEG and PDF formats automatically.
29. Write code to implement a custom plot theme in ggplot2, adjusting fonts, backgrounds, and grid lines.
30. Demonstrate using ifelse() in R to create a new variable and plot this conditional variable using ggplot2.

*****Finished*****