



Vidyavardhini's College of Engineering and Technology

Department of Artificial Intelligence & Data Science

Experiment No - 7

Aim - Data Visualization: Data Visualization: Use different R libraries for data visualization.

Objective:- To understand and apply the R libraries for visualization using python.

Description:-

1. ggplot2

ggplot2 is an R data visualization library that is based on The Grammar of Graphics. ggplot2 can create data visualizations such as bar charts, pie charts, histograms, scatterplots, error charts, etc. using high-level API. It also allows you to add different types of data visualization components or layers in a single visualization. Once ggplot2 has been told which variables to map to which aesthetics in the plot, it does the rest of the work so that the user can focus on interpreting the visualizations and take less time in creating them. But this also means that it is not possible to create highly customized graphics in ggplot2. But there are a lot of resources in the RStudio community and Stack Overflow which can provide help in ggplot2 when needed. Just like dplyr, if you want to install ggplot2, you can install the tidyverse or you can just install ggplot2 using `install.packages("ggplot2")`

2. Plotly

Plotly is a free open-source graphing library that can be used to form data visualizations. Plotly is an R package that is built on top of the Plotly JavaScript library (plotly.js) and can be used to create web-based data visualizations that can be displayed in Jupyter notebooks or web applications using Dash or saved as individual HTML files. Plotly provides more than 40 unique chart types like scatter plots, histograms, line charts, bar charts, pie charts, error bars, box plots, multiple axes, sparklines, dendrograms, 3-D charts, etc. Plotly also provides contour plots, which are not that common in other data visualization libraries. In addition to all this, Plotly can be used offline with no internet connection. You can install Plotly from CRAN using `install.packages('plotly')` or install the latest development version from GitHub using devtools: `install_github("ropensci/plotly")`.