Introduction to R
(& Rstudio)

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Was created by Ross Ihaka & Robert Gentleman

R is the top Google Search for Advanced Analytics Software

First version released-March 1995

Used by more than 2 million people worldwide

Named after the first letter of the founders

Most-used Data Science language after SQL
Applications of R Programming

• R is widely used for quantitative analysis.
• It helps in data importing and cleaning.
• It helps data analysts and research programmers by solving their statistical problems.
• Can be used with multiple operating systems.
Advantages of R Programming language

• The R programming language is open-source software. Therefore, anyone can use and change it.
  • Due to its open-source nature, anyone can fix the bugs
  • Enhance the code
  • New packages.
    • The R Journal: https://journal.r-project.org
    • Journal of Statistical Software: https://www.jstatsoft.org/index
Basic Principles of R Programming
Importing Data
Packages
• What is a package?
  • All functions in R, except the ones you write yourself or copy from online forums, come in packages.

• You only ever need to install a package once.

• Packages have to be loaded every session.
  • Two ways of “calling” for packages.
Activity

• Play with R built in datasets
  • Type in data() to find a dataset
  • Select a dataset data("nameOfDataset")
  • Play with head(), tail(), names(), dim()
• Research Design & Data Analysis Lab: https://www.uttyler.edu/research/ors-research-design-data-analysis-lab/

• Schedule a consultant appointment with me: https://www.uttyler.edu/research/ors-research-design-data-analysis-lab/ors-research-design-data-analysis-data-analysis-lab-consultants/

• Check out Lab Resources (including recording of this webinar): https://www.uttyler.edu/research/ors-research-design-data-analysis-lab/resources/