Introduction to Data Frames

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Talk to a Teacher Project
http://spoken-tutorial.org
National Mission on Education through ICT
http://www.sakshat.ac.in

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Learning Objectives

In this tutorial, we will explain

- **how to create a data frame in R**

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We will also learn about the data sets that come with the R software

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- **No programming background is reqd.**
- **Anyone with a simple exposure to statistics can understand this tutorial**

Prerequisites - Continued

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- **Prerequisite spoken tutorials, if any, will be mentioned in this page**

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But it should work also in other versions and other operating systems

Let us switch to R and RStudio

Data Frame Command Summary

- **names <- c(Mahi,Sourav,Azhar, Sunny,Pataudi,Dravid)**
- **played <- c(45,49,47,47,40,25)**
- **won <- c(22,21,14,9,9,8)**
- **lost <- c(12,13,14,8,19,6)**
- **Y <- c(2012,2004,2000,1980,1965,2008)**
- **captaincy <- dataframe(names,Y, played,won,lost)**

Let us switch to R and RStudio

Data Frame Command Summary

- **captaincy$names**
- **captaincy$won**
- **captaincy$played**
- **ratio <- captaincy$won/captaincy$played**
- **captaincy$victory <- ratio**
- **options(digits=2)**
- **View(captaincy)**

Let us switch to R and RStudio

Data Frame Command Summary

- **options(digits=2)**
- **mean(captaincy$played)**
- **(45+49+47+47+40+25) / 6**
- **plot(captaincy$Y,ratio)**
- **plot(captaincy$names,captaincy$played)**

Let us switch to R and RStudio

- **write.csv(captaincy,new-captaincy.csv)**
- **write.csv(captaincy,new-captaincy.csv,row.names=FALSE)**
- **data()**
- **View(CO2)**

Summary

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- **We created vectors**
- **We put the vectors into a data frame**
- **We operated on the data frame**
- **We saved the data frame into a file**
- **Imported the file into R**
- **Examined the data frames that came with R**

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- **Calculate mean and median of CO2.**
- **Take the help of R for all the commands shown in this tutorial.**
- **Import a data set from the Internet directly or through a file**

About the Spoken Tutorial Project

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- **It is supported by the National Mission on Education through ICT, MHRD, Government of India**
- **More information on this Mission is available at http://spoken-tutorial.org /NMEICT-Intro**

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