

# Creating Data Frames in R

Using the `data.frames()` in R, we can create the data frames  
Read the documentation for `data.frame` in Rstudio,  
Using the **`help(data.frame)`**

```
# Creating a dataframe
# Example: RPI Weather dataframe.

days <- c('Mon', 'Tue', 'Wed', 'Thur', 'Fri', 'Sat', 'Sun') # days
temp <- c(28, 30.5, 32, 31.2, 29.3, 27.9, 26.4) # Temperature in F' during the winter :)
snowed <- c('T', 'T', 'F', 'F', 'T', 'T', 'F') # Snowed on that day: T = TRUE, F= FALSE
help("data.frame")
RPI_Weather_Week <- data.frame(days, temp, snowed) # creating the dataframe using the data.frame() function

RPI_Weather_Week
head(RPI_Weather_Week) # head of the data frame, NOTE: it will show only 6 rows, usually head() function shows the
# first 6 rows of the dataframe, here we have only 7 rows in our dataframe.

str(RPI_Weather_Week) # we can take a look at the structure of the dataframe using the str() function.

summary(RPI_Weather_Week) # summary of the dataframe using the summary() function
```

# Data frames

```
RPI_Weather_Week[1,] # showing the 1st row and all the columns
RPI_Weather_Week[,1] # showing the 1st column and all the rows

RPI_Weather_Week[, 'snowed']
RPI_Weather_Week[, 'days']
RPI_Weather_Week[, 'temp']
RPI_Weather_Week[1:5, c("days", "temp")]
RPI_Weather_Week$temp
subset(RPI_Weather_Week, subset=snowed==TRUE)

sorted.snowed <- order(RPI_Weather_Week['snowed'])
sorted.snowed
RPI_Weather_Week[sorted.snowed,]
```

```
# RPI_Weather_Week[descending_snowed,]
dec.snow <- order(-RPI_Weather_Week$temp)
dec.snow
# Creating Dataframes
# creating an empty dataframe
empty.DataFrame <- data.frame()
v1 <- 1:10
v1
letters
v2 <- letters[1:10]
df <- data.frame(col.name.1 = v1,col.name.2 = v2)
df
# importing data and exporting data
# writing to a CSV file:
write.csv(df,file = 'saved_df1.csv')
df2 <- read.csv('saved_df1.csv')
df2
```