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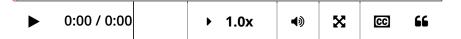
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# dplyr dplyr

Start of transcript. Skip to the end.





# RAFAEL IRIZARRY: An important part of exploratory data analysis

is summarizing data.

We've already learned about the average and the standard deviation, two summary

statistics that provide all

#### Video

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### **Textbook link**

This video corresponds to the <u>textbook section on summarizing data</u>.

## **Key points**

- summarize() from the **dplyr/tidyverse** package computes summary statistics from the data frame. It returns a data frame whose column names are defined within the function call.
- summarize() can compute any summary function that operates on vectors and returns a single value, but it cannot operate on functions that return multiple values.
- Like most **dplyr** functions, summarize() is aware of variable names within data frames and can use them directly.

#### Code

```
library(tidyverse)
library(dslabs)
data(heights)
# compute average and standard deviation for males
s <- heights %>%
    filter(sex == "Male") %>%
    summarize(average = mean(height), standard deviation = sd(height))
# access average and standard deviation from summary table
s$average
s$standard deviation
# compute median, min and max
heights %>%
    filter(sex == "Male") %>%
    summarize(median = median(height),
              minimum = min(height),
              maximum = max(height))
# alternative way to get min, median, max in base R
quantile(heights$height, c(0, 0.5, 1))
# generates an error: summarize can only take functions that return a s
heights %>%
    filter(sex == "Male") %>%
    summarize(range = quantile(height, c(0, 0.5, 1)))
```

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