Workshop 4 Solutions

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#### 1. Data practice

In class we imported the survey data using the read.table() function.

This is the code we used:

survey <- read.table("survey\_data.csv", header=TRUE, sep=",")

##### (a) How many survey respondents are from MISM or Other?

sum(survey[["Program"]] == "MISM" | survey[["Program"]] == "Other")

## [1] 16

##### (b) What % of survey respondents are from PPM?

100 \* sum(survey[["Program"]] == "PPM") / nrow(survey)

## [1] 48.3871

#### 2. Index practice

##### (a) Use $ notation to pull the OperatingSystem column from the survey data

survey$OperatingSystem

## [1] Windows Windows Windows Windows Windows Mac OS X Mac OS X  
## [8] Windows Mac OS X Windows Mac OS X Windows Mac OS X Mac OS X  
## [15] Windows Mac OS X Windows Mac OS X Windows Windows Mac OS X  
## [22] Windows Windows Mac OS X Mac OS X Mac OS X Mac OS X Windows   
## [29] Mac OS X Windows Windows   
## Levels: Mac OS X Windows

##### (b) Do the same thing with [,] notation, referring to OperatingSystem by name

survey[, "OperatingSystem"]

## [1] Windows Windows Windows Windows Windows Mac OS X Mac OS X  
## [8] Windows Mac OS X Windows Mac OS X Windows Mac OS X Mac OS X  
## [15] Windows Mac OS X Windows Mac OS X Windows Windows Mac OS X  
## [22] Windows Windows Mac OS X Mac OS X Mac OS X Mac OS X Windows   
## [29] Mac OS X Windows Windows   
## Levels: Mac OS X Windows

##### (c) Repeat part (b), this time referring to OperatingSystem by column number

survey[, 3]

## [1] Never used Basic competence Basic competence   
## [4] Installed on machine Never used Never used   
## [7] Never used Never used Never used   
## [10] Never used Installed on machine Never used   
## [13] Never used Never used Never used   
## [16] Never used Installed on machine Never used   
## [19] Never used Never used Installed on machine  
## [22] Never used Never used Never used   
## [25] Never used Installed on machine Never used   
## [28] Installed on machine Never used Never used   
## [31] Installed on machine  
## Levels: Basic competence Installed on machine Never used