R version 3.3.0 (2016-05-03) -- "Supposedly Educational"

Copyright (C) 2016 The R Foundation for Statistical Computing

Platform: x86\_64-w64-mingw32/x64 (64-bit)

R is free software and comes with ABSOLUTELY NO WARRANTY.

You are welcome to redistribute it under certain conditions.

Type 'license()' or 'licence()' for distribution details.

Natural language support but running in an English locale

R is a collaborative project with many contributors.

Type 'contributors()' for more information and

'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help, or

'help.start()' for an HTML browser interface to help.

Type 'q()' to quit R.

> install.packages("swirl")

Installing package into ‘C:/Users/Liau/Documents/R/win-library/3.3’

(as ‘lib’ is unspecified)

--- Please select a CRAN mirror for use in this session ---

trying URL 'https://mirrors.tuna.tsinghua.edu.cn/CRAN/bin/windows/contrib/3.3/swirl\_2.4.2.zip'

Content type 'application/zip' length 212251 bytes (207 KB)

downloaded 207 KB

package ‘swirl’ successfully unpacked and MD5 sums checked

The downloaded binary packages are in

C:\Users\Liau\AppData\Local\Temp\Rtmp27HyXA\downloaded\_packages

> packageVersion("swirl")

[1] ‘2.4.2’

> library(swirl)

| Hi! Type swirl() when you are ready to begin.

Warning message:

package ‘swirl’ was built under R version 3.3.1

> install\_from\_swirl("Statistical Inference")'

+ '

Error: unexpected string constant in:

"install\_from\_swirl("Statistical Inference")'

'"

> install\_from\_swirl("Statistical Inference")

Error in curl::curl\_fetch\_memory(url, handle = handle) :

Timeout was reached

> install\_from\_swirl("Statistical Inference")

Downloading: 130 B Downloading: 130 B Downloading: 130 B | | | 0% | | | 1% | |= | 1% | |= | 2% | |== | 2% | |== | 3% | |=== | 3% | |=== | 4% | |==== | 4% | |==== | 5% | |===== | 5% | |===== | 6% | |====== | 6% | |====== | 7% | |======= | 7% | |======= | 8% | |======== | 8% | |======== | 9% | |========= | 9% | |========= | 10% | |========== | 10% | |========== | 11% | |=========== | 11% | |=========== | 12% | |============ | 13% | |============ | 14% | |============= | 14% | |============= | 15% | |============== | 15% | |============== | 16% | |=============== | 16% | |=============== | 17% | |================ | 17% | |================ | 18% | |================= | 18% | |================= | 19% | |================== | 19% | |================== | 20% | |=================== | 20% | |=================== | 21% | |==================== | 21% | |==================== | 22% | |===================== | 22% | |===================== | 23% | |====================== | 23% | |====================== | 24% | |======================= | 24% | |======================= | 25% | |======================= | 26% | |======================== | 26% | |======================== | 27% | |========================= | 27% | |========================= | 28% | |========================== | 28% | |========================== | 29% | |=========================== | 29% | |=========================== | 30% | |============================ | 30% | |============================ | 31% | |============================= | 31% | |============================= | 32% | |============================== | 32% | |============================== | 33% | |=============================== | 33% | |=============================== | 34% | |================================ | 34% | |================================ | 35% | |================================= | 35% | |================================= | 36% | |================================== | 36% | |================================== | 37% | |=================================== | 38% | |=================================== | 39% | |==================================== | 39% | |==================================== | 40% | |===================================== | 40% | |===================================== | 41% | |====================================== | 41% | |====================================== | 42% | |======================================= | 42% | |======================================= | 43% | |======================================== | 43% | |======================================== | 44% | |========================================= | 44% | |========================================= | 45% | |========================================== | 45% | |========================================== | 46% | |=========================================== | 46% | |=========================================== | 47% | |============================================ | 47% | |============================================ | 48% | |============================================= | 48% | |============================================= | 49% | |============================================== | 49% | |============================================== | 50% | |============================================== | 51% | |=============================================== | 51% | |=============================================== | 52% | |================================================ | 52% | |================================================ | 53% | |================================================= | 53% | |================================================= | 54% | |================================================== | 54% | |================================================== | 55% | |=================================================== | 55% | |=================================================== | 56% | |==================================================== | 56% | |==================================================== | 57% | |===================================================== | 57% | |===================================================== | 58% | |====================================================== | 58% | |====================================================== | 59% | |======================================================= | 59% | |======================================================= | 60% | |======================================================== | 60% | |======================================================== | 61% | |========================================================= | 61% | |========================================================= | 62% | |========================================================== | 63% | |========================================================== | 64% | |=========================================================== | 64% | |=========================================================== | 65% | |============================================================ | 65% | |============================================================ | 66% | |============================================================= | 66% | |============================================================= | 67% | |============================================================== | 67% | |============================================================== | 68% | |=============================================================== | 68% | |=============================================================== | 69% | |================================================================ | 69% | |================================================================ | 70% | |================================================================= | 70% | |================================================================= | 71% | |================================================================== | 71% | |================================================================== | 72% | |=================================================================== | 72% | |=================================================================== | 73% | |==================================================================== | 73% | |==================================================================== | 74% | |===================================================================== | 74% | |===================================================================== | 75% | |===================================================================== | 76% | |====================================================================== | 76% | |====================================================================== | 77% | |======================================================================= | 77% | |======================================================================= | 78% | |======================================================================== | 78% | |======================================================================== | 79% | |========================================================================= | 79% | |========================================================================= | 80% | |========================================================================== | 80% | |========================================================================== | 81% | |=========================================================================== | 81% | |=========================================================================== | 82% | |============================================================================ | 82% | |============================================================================ | 83% | |============================================================================= | 83% | |============================================================================= | 84% | |============================================================================== | 84% | |============================================================================== | 85% | |=============================================================================== | 85% | |=============================================================================== | 86% | |================================================================================ | 86% | |================================================================================ | 87% | |================================================================================= | 88% | |================================================================================= | 89% | |================================================================================== | 89% | |================================================================================== | 90% | |=================================================================================== | 90% | |=================================================================================== | 91% | |==================================================================================== | 91% | |==================================================================================== | 92% | |===================================================================================== | 92% | |===================================================================================== | 93% | |====================================================================================== | 93% | |====================================================================================== | 94% | |======================================================================================= | 94% | |======================================================================================= | 95% | |======================================================================================== | 95% | |======================================================================================== | 96% | |========================================================================================= | 96% | |========================================================================================= | 97% | |========================================================================================== | 97% | |========================================================================================== | 98% | |=========================================================================================== | 98% | |=========================================================================================== | 99% | |============================================================================================| 99% | |============================================================================================| 100%

| Course installed successfully!

> swirl()

| Welcome to swirl! Please sign in. If you've been here before, use the same name as you did then. If

| you are new, call yourself something unique.

What shall I call you? SY

| Thanks, SY. Let's cover a couple of quick housekeeping items before we begin our first lesson.

| First of all, you should know that when you see '...', that means you should press Enter when you

| are done reading and ready to continue.

... <-- That's your cue to press Enter to continue

| Also, when you see 'ANSWER:', the R prompt (>), or when you are asked to select from a list, that

| means it's your turn to enter a response, then press Enter to continue.

Select 1, 2, or 3 and press Enter

1: Continue.

2: Proceed.

3: Let's get going!

Selection: 1

| You can exit swirl and return to the R prompt (>) at any time by pressing the Esc key. If you are

| already at the prompt, type bye() to exit and save your progress. When you exit properly, you'll

| see a short message letting you know you've done so.

| When you are at the R prompt (>):

| -- Typing skip() allows you to skip the current question.

| -- Typing play() lets you experiment with R on your own; swirl will ignore what you do...

| -- UNTIL you type nxt() which will regain swirl's attention.

| -- Typing bye() causes swirl to exit. Your progress will be saved.

| -- Typing main() returns you to swirl's main menu.

| -- Typing info() displays these options again.

| Let's get started!

...

| Please choose a course, or type 0 to exit swirl.

1: Statistical Inference

2: Take me to the swirl course repository!

Selection: 1

| Please choose a lesson, or type 0 to return to course menu.

1: Introduction 2: Probability1 3: Probability2

4: ConditionalProbability 5: Expectations 6: Variance

7: CommonDistros 8: Asymptotics 9: T Confidence Intervals

10: Hypothesis Testing 11: P Values 12: Power

13: Multiple Testing 14: Resampling

Selection: 1

| | | 0%

| Introduction to Statistical\_Inference. (Slides for this and other Data Science courses may be found

| at github https://github.com/DataScienceSpecialization/courses. If you care to use them, they must

| be downloaded as a zip file and viewed locally. This lesson corresponds to

| Statistical\_Inference/Introduction.)

...

| |========= | 10%

| In this lesson, we'll briefly introduce basics of statistical inference, the process of drawing

| conclusions "about a population using noisy statistical data where uncertainty must be accounted

| for". In other words, statistical inference lets scientists formulate conclusions from data and

| quantify the uncertainty arising from using incomplete data.

...

| |================== | 20%

| Which of the following is NOT an example of statistical inference?

1: Testing the efficacy of a new drug

2: Constructing a medical image from fMRI data

3: Polling before an election to predict its outcome

4: Recording the results of a statistics exam

Selection: 2

| That's not exactly what I'm looking for. Try again.

| Which of the choices involves concrete data that doesn't require any inference or generalization?

1: Recording the results of a statistics exam

2: Polling before an election to predict its outcome

3: Testing the efficacy of a new drug

4: Constructing a medical image from fMRI data

Selection: 1

| Excellent job!

| |============================ | 30%

| So statistical inference involves formulating conclusions using data AND quantifying the

| uncertainty associated with those conclusions. The uncertainty could arise from incomplete or bad

| data.

...

| |===================================== | 40%

| Which of the following would NOT be a source of bad data?

1: Selection bias

2: Small sample size

3: A poorly designed study

4: A randomly selected sample of population

Selection: 4

| All that practice is paying off!

| |============================================== | 50%

| So with statistical inference we use data to draw general conclusions about a population. Which of

| the following would a scientist using statistical inference techniques consider a problem?

1: Our data sample is representative of the population

2: Our study has no bias and is well-designed

3: Contaminated data

Selection: 3

| Keep working like that and you'll get there!

| |======================================================= | 60%

| Which of the following is NOT an example of statistical inference in action?

1: Determining a causative mechanism underlying a disease

2: Estimating the proportion of people who will vote for a candidate

3: Testing the effectiveness of a medical treatment

4: Counting sheep

Selection: 4

| Keep up the great work!

| |================================================================ | 70%

| We want to emphasize a couple of important points here. First, a statistic (singular) is a number

| computed from a sample of data. We use statistics to infer information about a population. Second,

| a random variable is an outcome from an experiment. Deterministic processes, such as computing

| means or variances, applied to random variables, produce additional random variables which have

| their own distributions. It's important to keep straight which distributions you're talking about.

...

| |========================================================================== | 80%

| Finally, there are two broad flavors of inference. The first is frequency, which uses "long run

| proportion of times an event occurs in independent, identically distributed repetitions." The

| second is Bayesian in which the probability estimate for a hypothesis is updated as additional

| evidence is acquired. Both flavors require an understanding of probability so that's what the next

| lessons will cover.

...

| |=================================================================================== | 90%

| Congrats! You've concluded this brief introduction to statistical inference.

...

| |============================================================================================| 100%

| Would you like to receive credit for completing this course on Coursera.org?

1: Yes

2: No

Selection: 1

What is your email address? sweeyean@gmail.com

What is your assignment token? jucch8xsvjVJzLNd

Grade submission succeeded!

| Excellent work!

| You've reached the end of this lesson! Returning to the main menu...

| Please choose a course, or type 0 to exit swirl.

1: Statistical Inference

2: Take me to the swirl course repository!

Selection: