Daily Assessment format

Date: 22/07/2020

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Course: coursera

Topic: Basic statistics

Github repository: jyothi-courses

Report

understanding statistics is essential to understand research in the social & behavioural sciences. in this course you will learn the basics of statistics; not just how to calculate them, but also how to evaluate them. this course will also prepare you for the next course in the specialization - the course inferential statistics.

In the first part of the course we will discuss methods of descriptive statistics. you will learn what cases & variables are & how you can compute measures of central tendancy (mean, median & mode) & dispersion (std deviation, variance). next, we discuss how to acess relationships b/w variables, & we introduce the concepts correlation & regression.

The second part of the course is concerned with the basics of probability; calculating probabilities, probability distributions & sampling distributions. you need to know about these things in order to understand how inferential statistics work.

The third part of the course consists of an introduction to methods of inferential statistics methods that help us decide wheather the patterns we see in our data are strong enough to draw conclusions about the underlying population we are interested in. we will discuss confidence intervals & significance tests.

you will not only learn about all these statistical concepts, you will also be trained to calculate & generate

these statistics yourself using freely available statistical software.

Before we can understand probability, we first have to understand another concept: randomness. The first video explains this concept. It also shows that even though randomness is everywhere around us, humans are nonetheless bad in assessing it.

Once we understand randomness, we can define probability as a way to quantify randomness. The second video explains how this qualification can be accomplished by experiments which record the relative freq that certain events of interest occur. It follows that probabilities are always larger or equal to Zero.

Date: 11/July/2020
Course: Workshop
Topic: How to develop pythonic coding rather than python coding

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Report

A tuple is a collection of objects which ordered & immutable. tuples are sequences. just like lists. the differences b/w tuples & Lists are, the tuples can't be changed unlike lists & tuple use parentheses, whereas lists use square brackets.

tuples are immutable which means you can't update or change the value of tuple elements. you are able to take portions of existing tuples to create new tuples.

the most basic data structures in python is the sequences is assigned a number - its position or index. the first index is zero, the second index is one, & so forth.

python has six built-in types of sequences, but the most common ones are lists & tuples, which we would see in this tutorial.

there are certain things you can do with all sequence types. these operations include indexing, slicing, adding, multiplying & checking for membership. in addition, python has built-in fucs for finding the length of a sequence & for finding its largest & smallest elements.