



BerkeleyX: CS110x Big Data Analysis with Apache Spark

Week 2 - Performing Data Science > Lecture 2: Performing Data Science and Preparing Data > Statistics

Bookmarks

Bookmark

▶ Week 1 - Big Data and Data Science

▼ Week 2 - Performing Data Science

Lecture 2: Performing Data Science and Preparing Data
Quizzes

Lab 2 - Movie Rating Prediction using Alternating Least Squares
Lab due Sep 13, 2016 at 04:30 IST

Lab 2 Quiz Questions
Quizzes

Statistics

BERCS1102016-V002200



Start of transcript. Skip to the end.

SPEAKER 1: mean of a set of values is the average of the values.

Variance is a measure of the width of a distribution.

The standard deviation is the square root of variance

and a normal distribution is characterized

by a mean and variance.

▶ 0:00 / 6:33

▶ 1.0x



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Exam Score Mean

(1/1 point)

Can all of the scores on an exam be above the mean?

- ☐ Yes, if the mean is low enough then all of the scores can be above the mean
- ☐ Yes, this is the definition of the mean statistic
- ☒ No, by definition the mean is the sum of the exam scores over the count of scores ✓

EXPLANATION

The definition the mean is the sum of the exam scores over the count of scores, as such, the closest situation to the quiz question is when all of the exam scores are identical. However, in this case, all of the scores would be the same as the mean.

An Exam Score and the Mean



(1/1 point)

If your score on an exam is above the mean, does that indicate that it is in the upper half of the exam scores?

- ☒ No, by definition the mean is not the half-way point of the data ✓
- ☐ Yes, this is the definition of the mean statistic
- ☐ Yes, by definition a value above the mean is above the half-way point of the data

EXPLANATION

The definition the mean is the balance point of a distribution, not the half-way point of the data.

Distributions

(1/1 point)

What type of probability distribution does "waiting time" often follow in the real world?

- ☐ Normal Distribution
- ☒ Exponential Distribution ✓

☐ Poisson Distribution

☐ Chi-Squared Distribution

EXPLANATION

Exponential distributions follow the "waiting time" between events such as visits to a web site within a fixed interval.

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