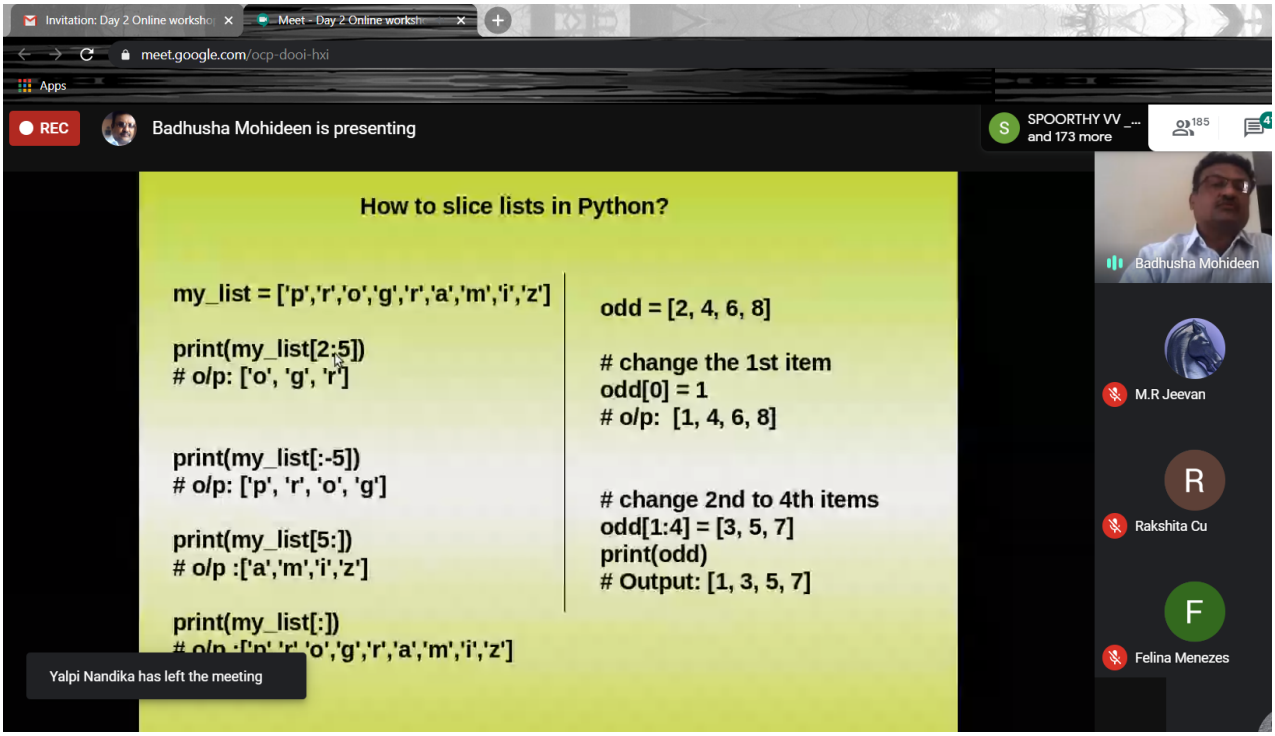
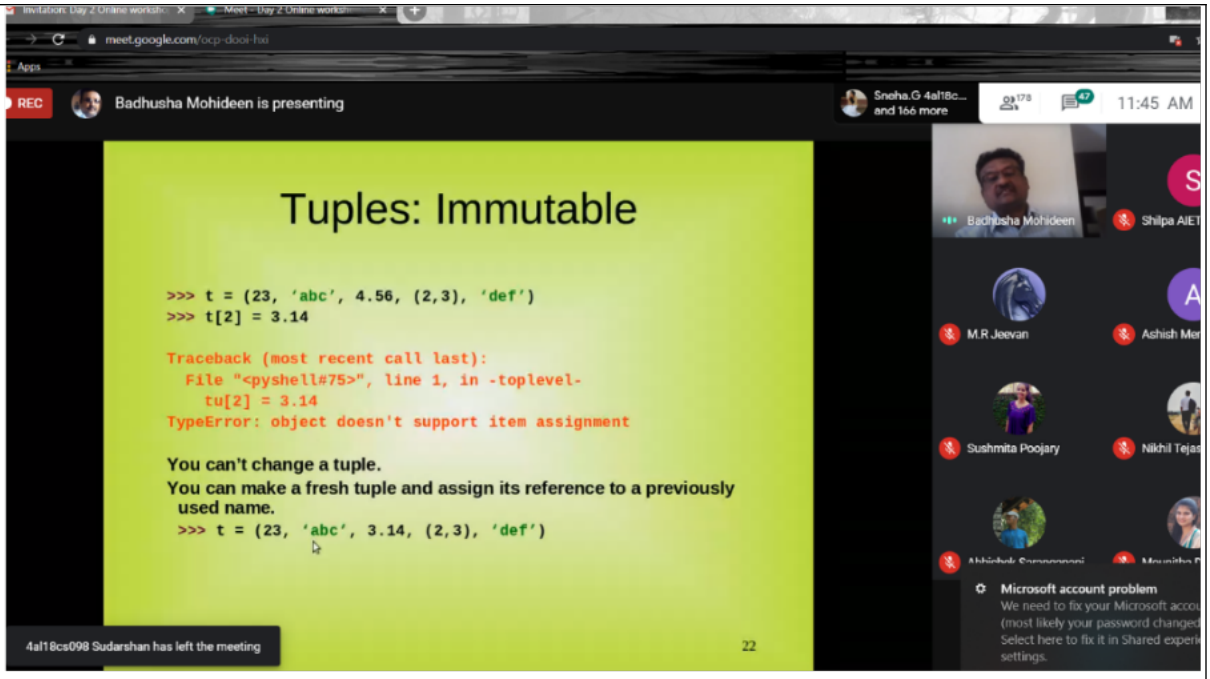
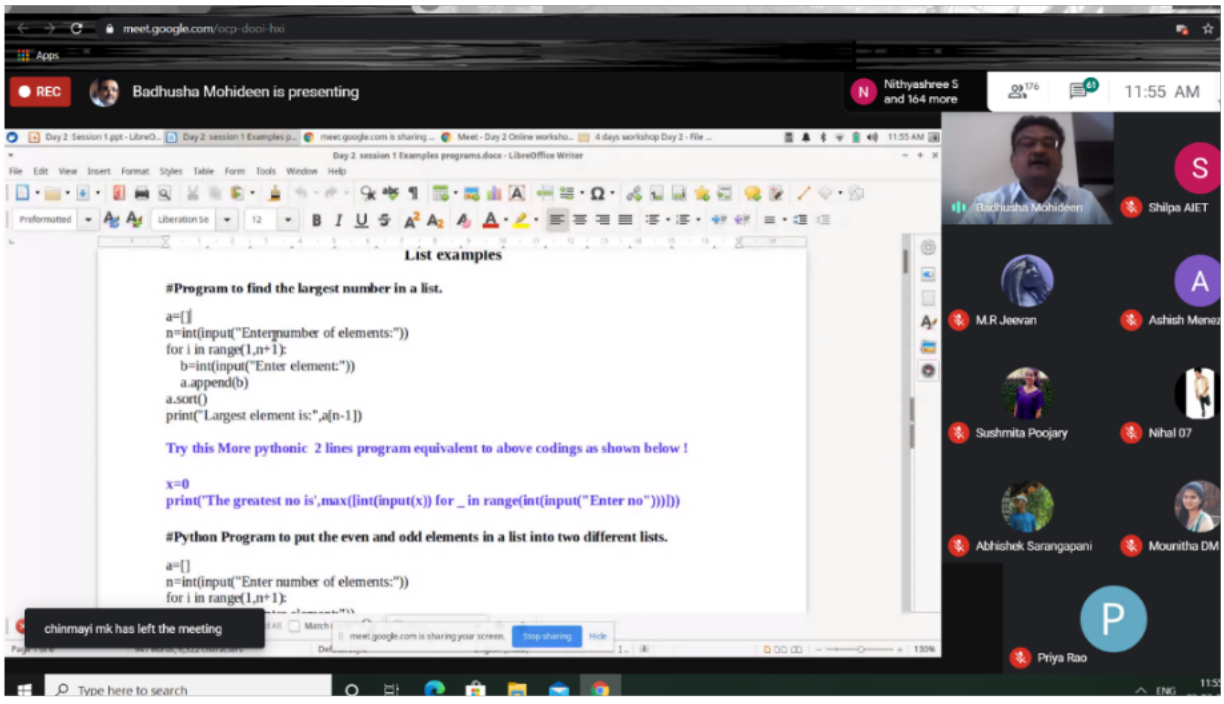
DAILY ASSESSMENT FORMAT

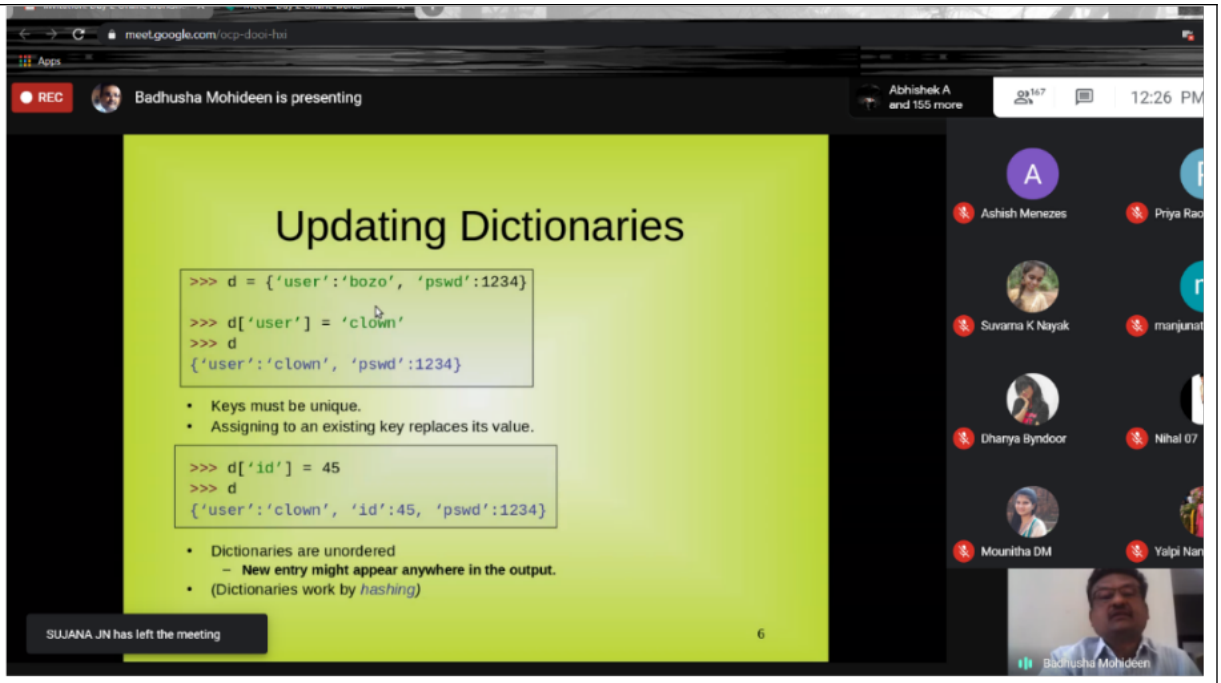
Date:	22-07-2020	Name:	YAMUNASHREE N
Course:	Python	USN:	4AL17EC097
Topic:	How to develop Pythonic coding rather than Python coding	Semester & Section:	6th SEM and 'B'section
Github Repository:	yamunashree-course		

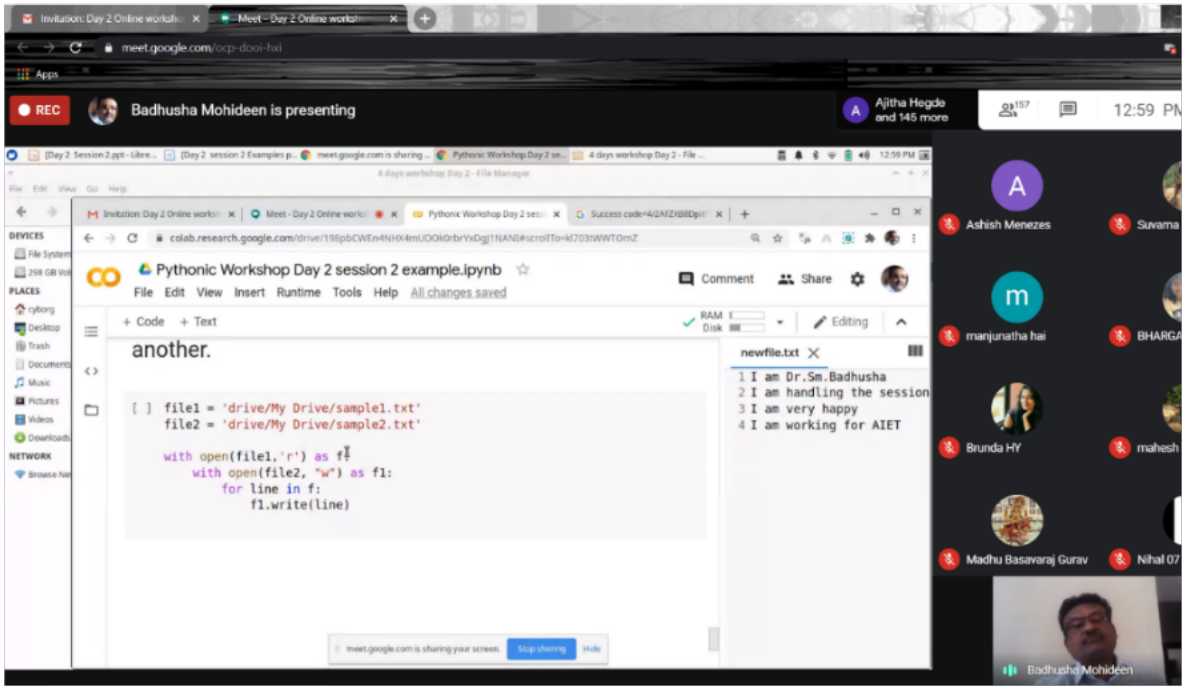
FORENOON SESSION DETAILS(9.00am to 1.00pm)









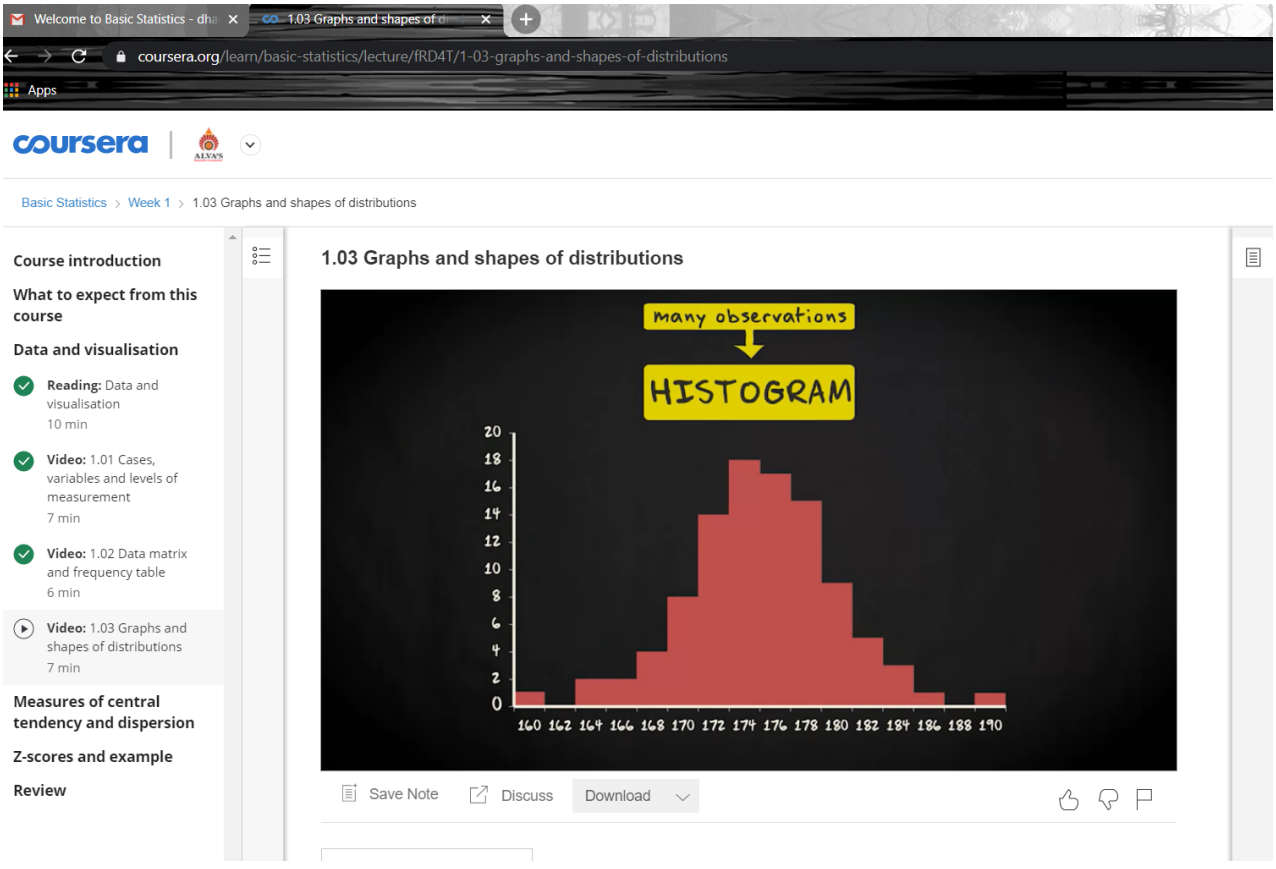


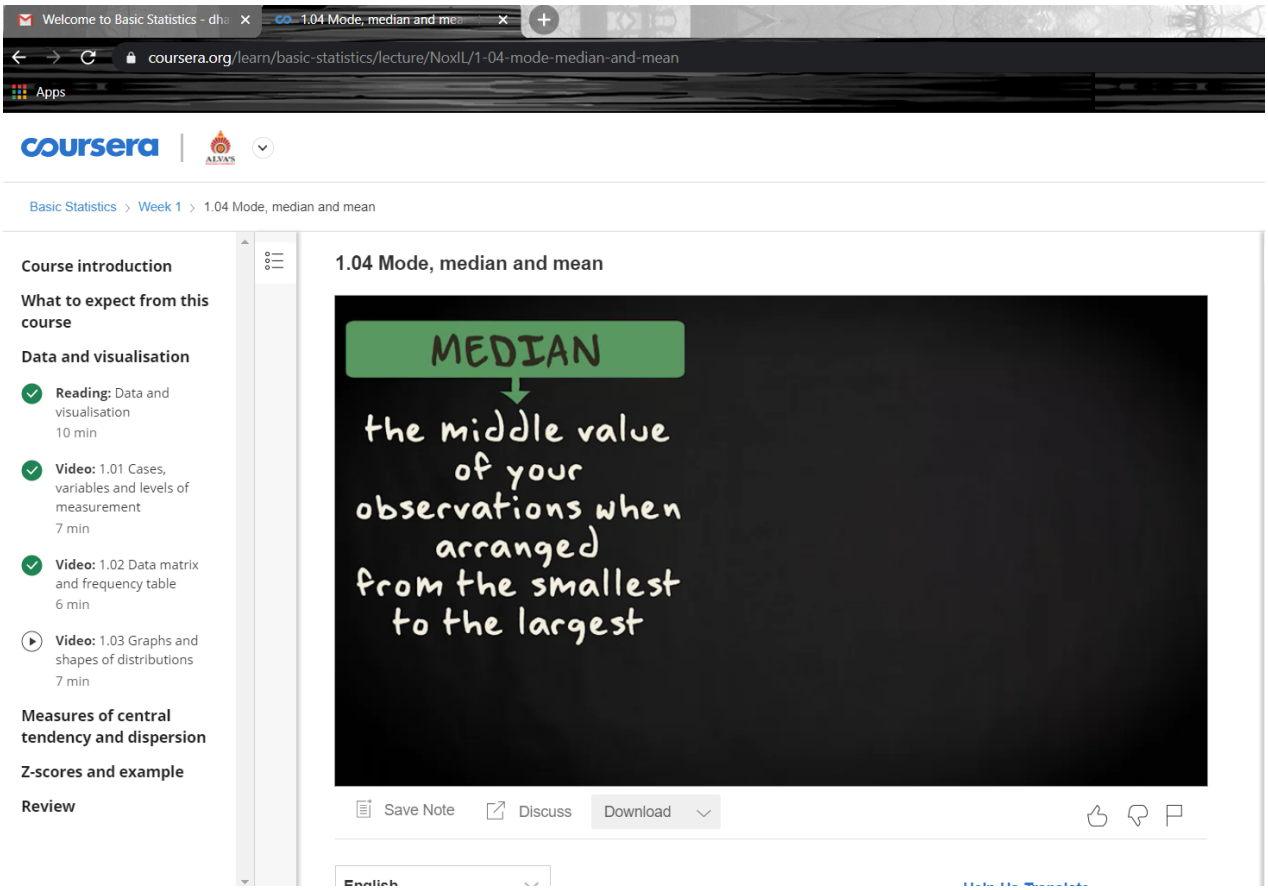
Python is an interpreted, high-level, general-purpose programming language. Created by Guido van Rossum and first released in 1991, Python's design philosophy emphasizes code readability with its notable use of significant whitespace.

What is Python used for?

It's often **used as** a “scripting language” for web applications. This means that it can automate specific series of tasks, making it more efficient. Consequently, **Python** (and languages like it) is often **used** in software applications, pages within a web browser, the shells of operating systems and some games.

Date:	22-07-2020	**Name:**	YAMUNASHREE N
Course:	Coursera	**USN:**	4AL17EC097
Topic:	Basic statistics	**Semester & Section:**	6th SEM and 'B'section
Github Repository:	yamunashree-course		





Welcome to Basic Statistics - dha | 1.06 Variance and standard

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Basic Statistics > Week 1 > 1.06 Variance and standard deviation

Course introduction

What to expect from this course

Data and visualisation

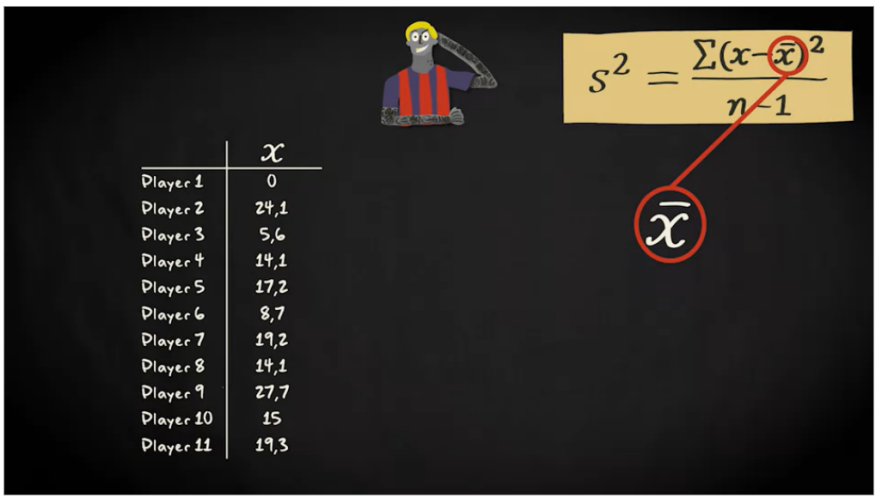
- **Reading:** Data and visualisation — 10 min
- **Video:** 1.01 Cases, variables and levels of measurement — 7 min
- **Video:** 1.02 Data matrix and frequency table — 6 min
- **Video:** 1.03 Graphs and shapes of distributions — 7 min

Measures of central tendency and dispersion

Z-scores and example

Review

1.06 Variance and standard deviation



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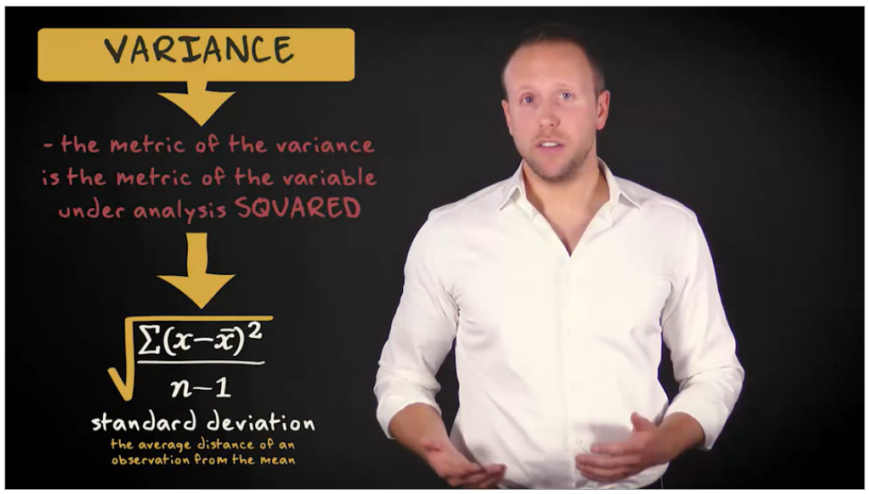

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English

Help Us Translate

There are few well know **statistics** are the average (or “mean”) value, and the “standard deviation” etc. Standard deviation is the variability within a data set around the mean value. The “variance” is the square of the standard deviation. The linear trend is another example of a data “**statistic**”.

Statistical methods involved in carrying out a study include planning, designing, collecting **data**, analysing, drawing meaningful interpretation and reporting of the research findings. The **statistical analysis** gives meaning to the meaningless numbers, thereby breathing life into a lifeless **data**.

Statistics is the discipline that concerns the collection, organization, analysis, interpretation and presentation of data. In applying statistics to a scientific, industrial, or social problem, it is conventional to begin with a statistical population or a statistical model to be studied. Populations can be diverse groups of people or objects such as "all people living in a country" or "every atom composing a crystal". Statistics deals with every aspect of data, including the planning of data collection in terms of the design of surveys and experiments. See glossary of probability and statistics.

Two main statistical methods are used in data analysis: descriptive statistics, which summarize data from a sample using indexes such as the mean or standard deviation, and inferential statistics, which draw conclusions from data that are subject to random variation (e.g., observational errors, sampling variation). Descriptive statistics are most often concerned with two sets of properties of a *distribution* (sample or population): *central tendency* (or *location*) seeks to characterize the distribution's central or typical value, while *dispersion* (or *variability*) characterizes the extent to which members of the distribution depart from its center and each other. Inferences on mathematical statistics are made under the framework of probability theory, which deals with the analysis of random phenomena.

Rejecting or disproving the null hypothesis is done using statistical tests that quantify the sense in which the null can be proven false, given the data that are used in the test. Working from a null hypothesis, two basic forms of error are recognized: Type I errors (null hypothesis is falsely rejected giving a "false positive") and Type II errors (null hypothesis fails to be rejected and an actual relationship between populations is missed giving a "false negative").

Measurement processes that generate statistical data are also subject to error. Many of these errors are classified as random (noise) or systematic (bias), but other types of errors (e.g., blunder, such as when an analyst reports incorrect units) can also occur.