

## **BerkeleyX:** CS105x Introduction to Apache Spark

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Setup

**▼** Week 1 - Apache Spark **Programming Model** 

**Lecture 1: Apache Spark Architecture and Programming Model** Ouizzes

Setting up the Course Software Environment (Due September 10, 2016 at 23:59 UTC) 

(Optional) Survey about your machine and setup experience

- Week 2 The Structured Query Language and Spark SQL
- Week 3 Analyzing Semi-Structured Data with Apache Spark

Week 1 - Apache Spark Programming Model > Lecture 1: Apache Spark Architecture and Programming Model > Analysis, Big Data, and Apache Spark

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## Analysis, Big Data, and Apache Spark

BERCS1052016-V002600



▶ 0:00 / 8:10

Pownload video
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Note that it is possible to run iPython with pySpark, in which case you do not need to create the SparkContext.

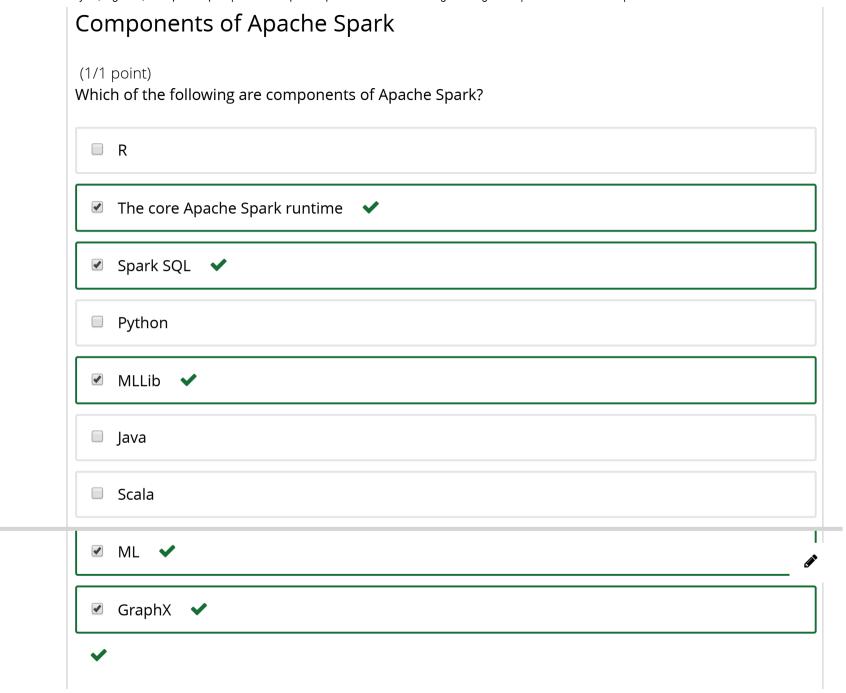
You can read a blog post about my research group's ADAM open source genomics pipeline see and run your own ADAM genomics analysis on data from the 1000 Genomes project using this notebook.

Capital One also uses Spark and graph analysis to detect fraudulent applications.

Another example of Big Data processing is IBM's jStart team's work with the USA Cycling Women's Team Pursuit team. The jStart team is using Spark Streaming to analyze streaming data from the riders' power meter, heart rate monitor and wearable muscle oxygen sensor, and provide coaches and riders with real-time performance metrics, such as W-prime depletion and matches burned.

## Spark DataFrame References

You can find more information about Spark DataFrames in the Spark online documentation for DataFrames. The DataFrame API is also available online.



Note: Make sure you select all of the correct options—there may be more than one!

## **EXPLANATION**

Python, Scala, Java, and R are languages that are fully supported by Apache Spark, however they are not part of Apache Spark. The core Apache Spark runtime, Spark SQL, MLlib, ML, and GraphX are all components of Apache Spark.

You have used 2 of 4 submissions

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