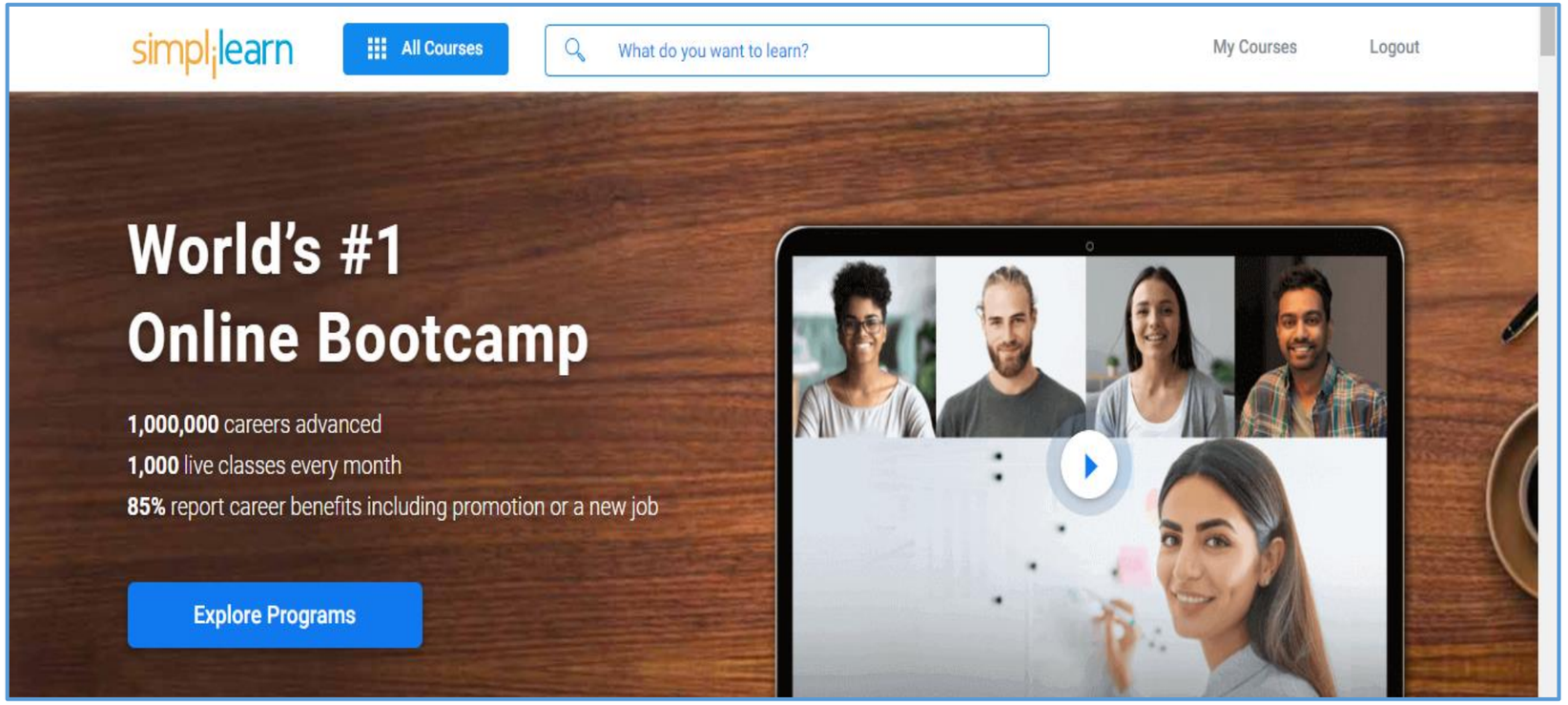
Big Data Hadoop and Spark Developer

Course Introduction

About Simplilearn

Simplilearn

For over a decade, Simplilearn has focused on digital economy skills.
Now, Simplilearn has become the **World's #1 Online Bootcamp.**



Simplilearn

Simplilearn provides:

- Live virtual classes (LVCs)

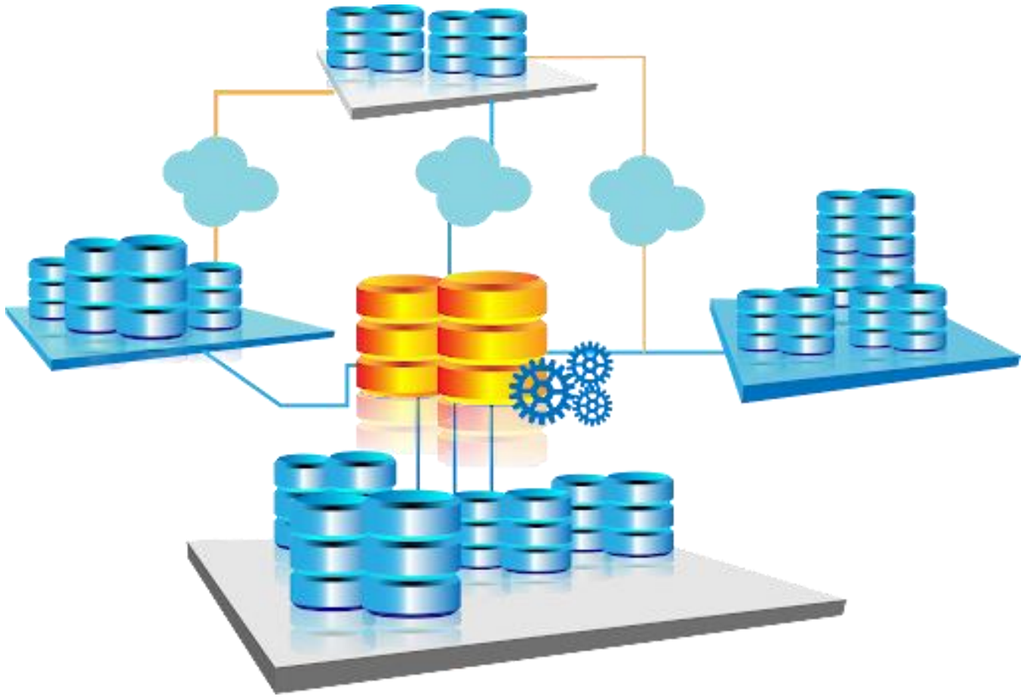
- Self-paced learning content

- Interactive labs

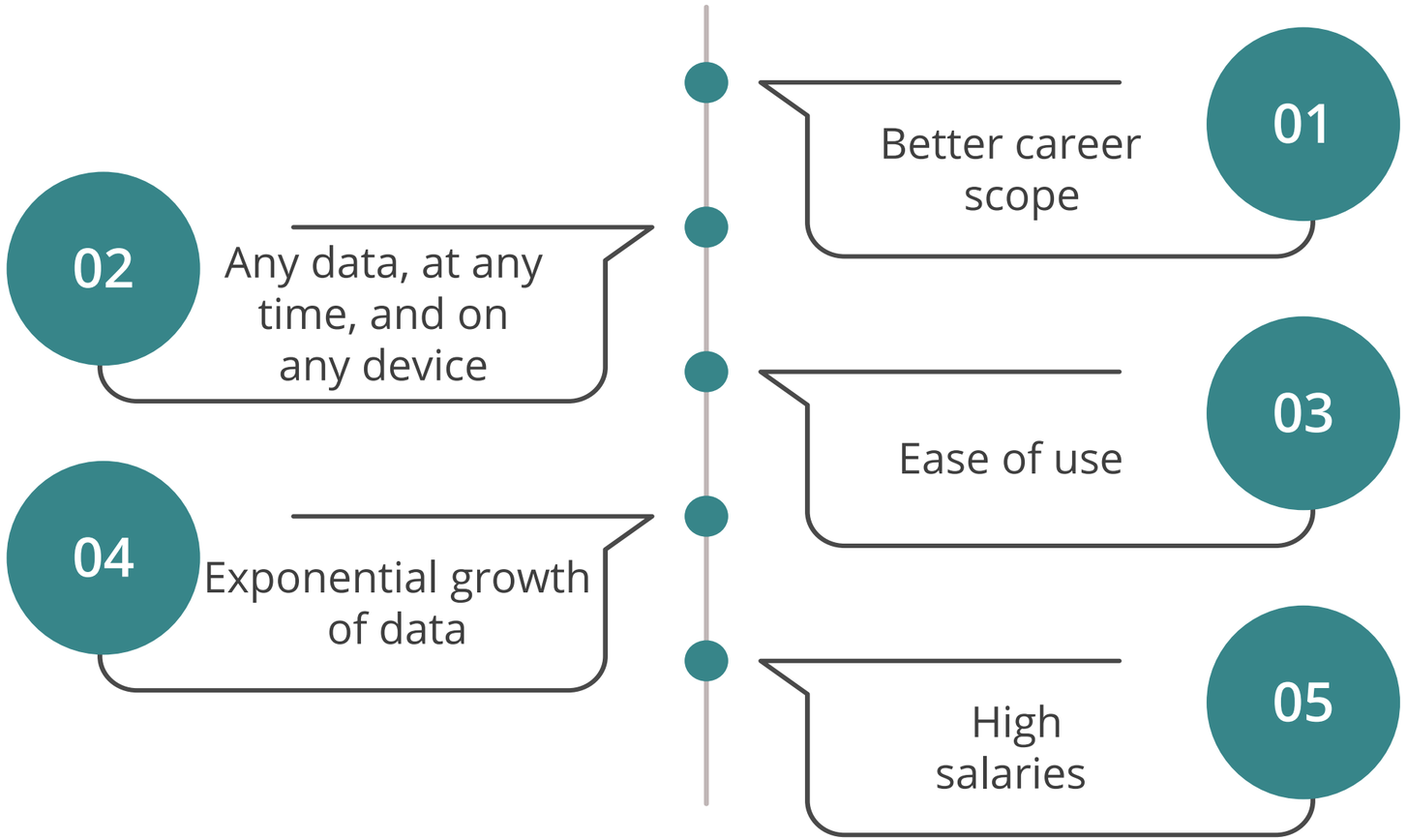
- Real-time, scenario-based projects

What Is Big Data?

Big data is an open-source software framework for storing data and executing applications on commodity hardware clusters.

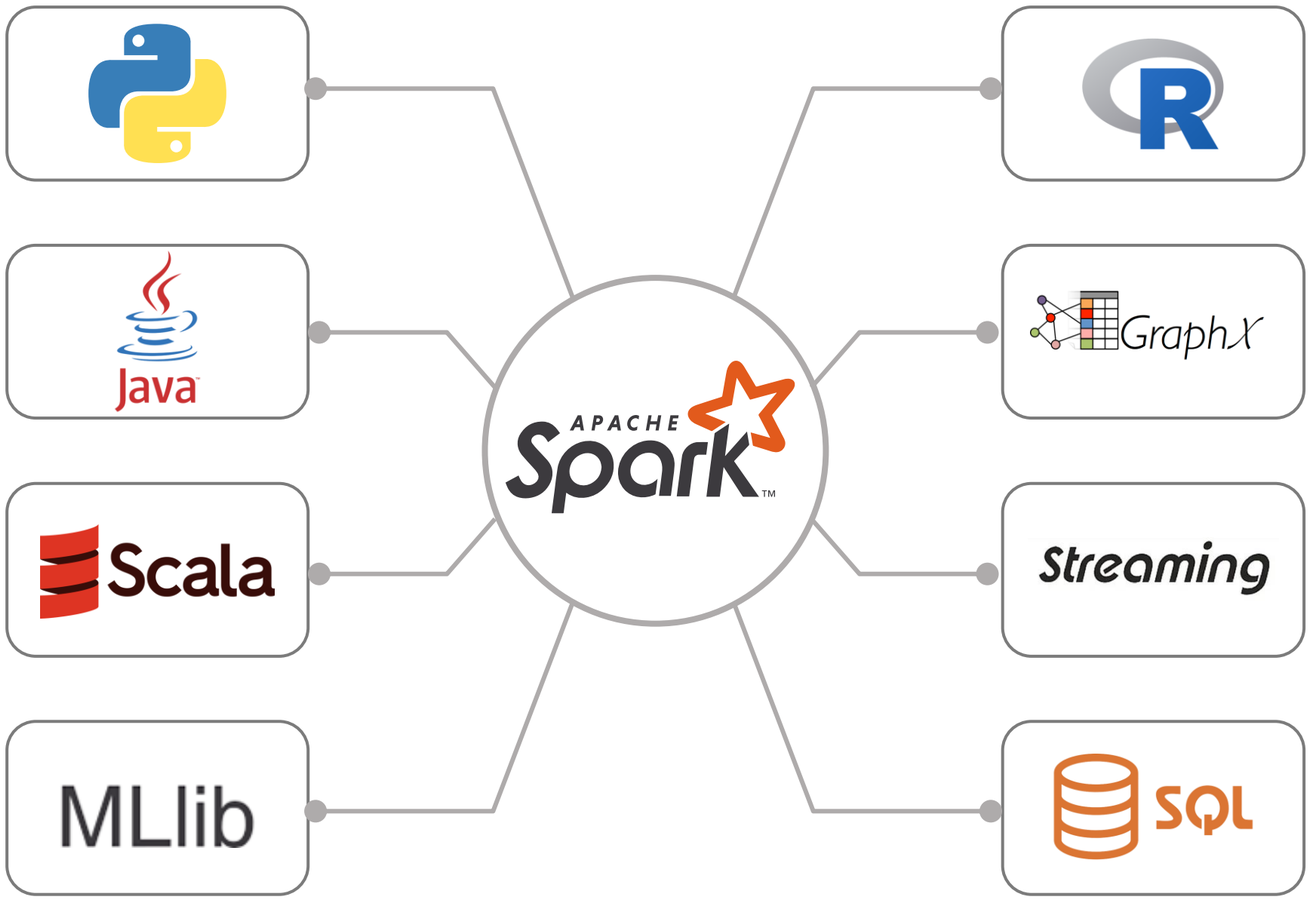


Why Big Data?


01
Better career scope
02
Any data, at any time, and on any device
03
Ease of use
04
Exponential growth of data
05
High salaries

Apache Spark

Apache Spark is an open-source cluster computing framework for real-time data processing.
It contains the following components:



Why Apache Spark?

More than 91% of companies use Apache Spark because of its performance gains. It has:

Demand for Big Data and Apache Spark

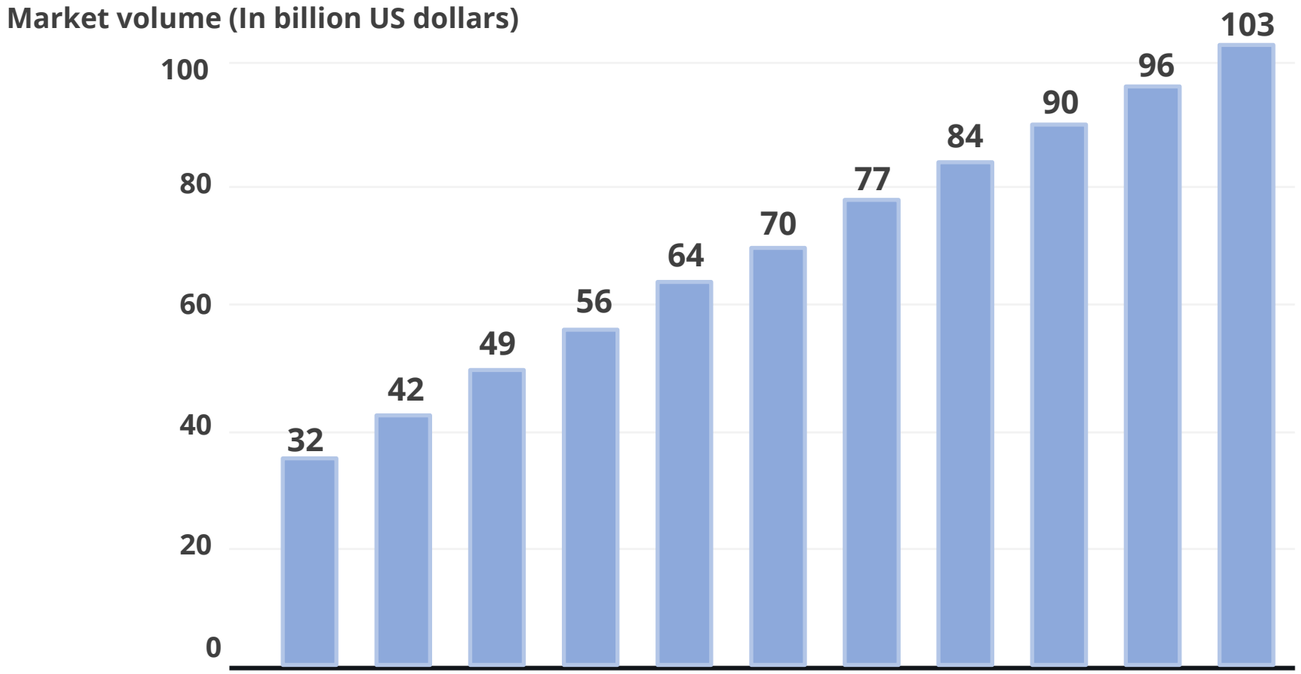
Globally recognized certificate

Accelerated career growth

Increased job selection probability

Demand for Big Data and Apache Spark

The demand for Big data is increasing in various data science fields. In the future, it is expected that this demand will continue to grow significantly.

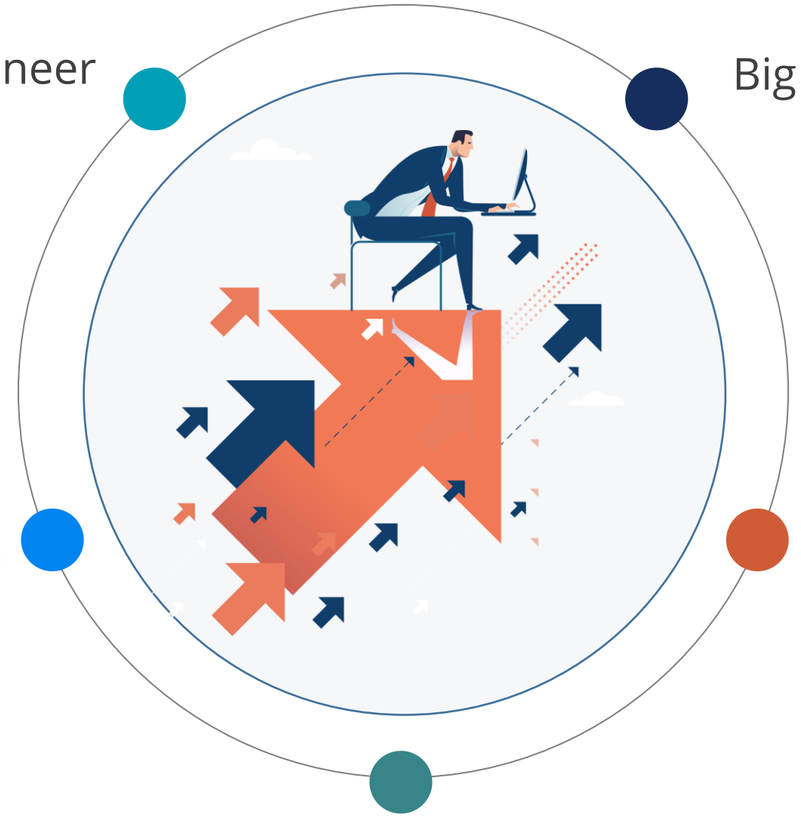


Source: https://appinventiv.com/blog/spark-vs-hadoop-big-data-frameworks/

Companies Hiring Data Engineers

Many companies around the world hire data engineers. These include:

Career Opportunities



Data Engineer

Big Data Developer

Apache Spark Application Developer

Hadoop or Spark Developer

Spark Developer

Prerequisites

Prior knowledge and understanding of the following languages:

JAVA

SQL

Simplilearn Program Features

Program Features

The blended learning program is a combination of:

Self-paced learning content

Live virtual classes (LVCs)

Hands-on exercises

Program Features

The program contains the following features:

Theoretical concepts

Case studies

Integrated labs

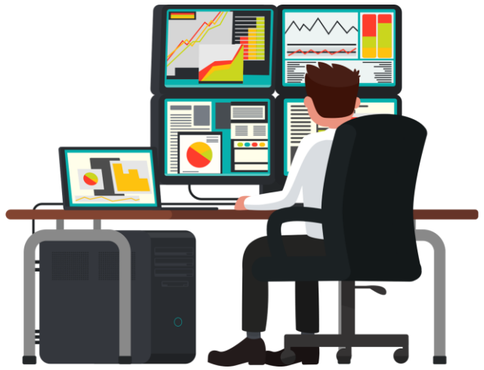
Projects

Program Features

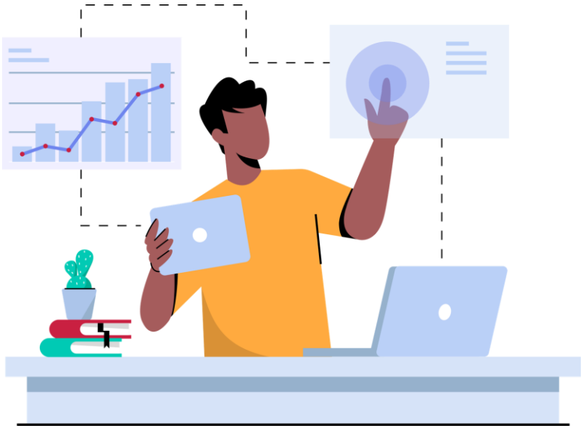
The class sizes are limited to foster maximum interaction.

Target Audience

Students



IT Professionals



Data Engineers

Learning Path

Course Outline

The outline of the course helps to understand the path of Big data Hadoop and Spark developers.

1. Course Introduction
2. Introduction to Big Data and Hadoop
3. HDFS: The Storage Layer
4. Distributed Processing: MapReduce Framework
5. MapReduce: Advanced Concepts
6. Apache Hive
7. Pig-Data Analysis Tool
8. NoSQL Databases: HBase
9. Data Ingestion into Big Data Systems and ETL
10. YARN Introduction

Course Outline

11. Introduction to Python for Apache Spark

12. Functions, OOPS, and Modules in Python

13. Big Data and the Need for Spark

14. Deep Dive into Apache Spark Framework

15. Working with Spark RDDs

16. Spark SQL and Data Frames

17. Machine Learning Using Spark ML

18. Stream Processing Frameworks and Spark Streaming

19. Spark Structured Streaming

20. Spark GraphX

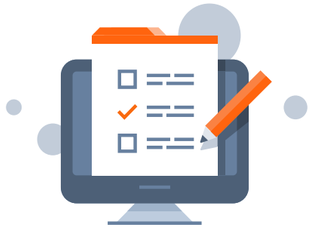
Course Components

Course Components

E-books: All lessons are available as downloadable PDF files for quick reference guides.

Assisted practices: These will assist you in developing abilities that will make you an asset to any business.

Course Components



Assessments: There are over 100 questions to assess your knowledge.

Projects: Lesson-end and course-end projects provide real-time and industry-based examples.

Course Completion Criteria

The learner needs to complete:

85% OSL or 100% LVC classes

Course-end assessment

At least one project

Course Outcomes

By the end of this course, you will be able to:

- Create an interaction between users and Hadoop Distributed File System using Hive
- Create an internal and external Hive table structure to read data from different formats
- Execute batch jobs using MapReduce frameworks
- Work with real-time streaming data pipelines and applications using Kafka

Course Outcomes

By the end of this course, you will be able to:

- Create Spark applications using Spark 3.x cluster and client mode
- Determine the components of Spark machine learning and GraphX
- Create and execute a real-time pipeline using Spark streaming and structured streaming
- Analyze the appropriate tools based on the data trends

Let’s Get Started