

# BIG DATA ENGINEER

Master's Program

Course Outline





## Course Overview:

This Big Data Engineer Master's Program, in collaboration with IBM, provides training on the competitive skills required for a rewarding career in data engineering. You'll learn to master the Hadoop big data framework, leverage the functionality of Apache Spark with Python, simplify data lines with Apache Kafka, and use the open source database management tool MongoDB to store data in big data environments.

## Key Features:

- Industry-recognized certificates from IBM (for IBM courses) and Simplilearn
- Real-life projects providing hands-on industry training 30+ in-demand skills
- Lifetime access to self-paced learning and class recordings
- 35 hours of self-paced training 132 hours of instructor-led training
- Masterclasses, Exclusive Mentoring Sessions and Hackathons by IBM

## Learning Outcomes

At the end of this Big Data Engineer Master's program, you will:

- Gain an in-depth understanding of the flexible and versatile frameworks on the Hadoop ecosystem, such as Pig, Hive, Impala, HBase, Sqoop, Flume, and Yarn
- Master tools and skills such as data model creation, database interfaces, advanced architecture, Spark, Sala, RDD, SparkSQL, Spark Streaming, Spark ML, GraphX, Sqoop, Flume, Pig, Hive, Impala, and Kafka architecture
- Understand how to model data, perform ingestion, replicate data, and shard data using the NoSQL database management system MongoDB
- Gain expertise in creating and maintaining analytics infrastructure and own the development, deployment, maintenance, and monitoring of architecture components
- Achieve insights on how to improve business productivity by processing big data on platforms that can handle its volume, velocity, variety, and veracity
- Learn how Kafka is used in the real world, including its architecture and components, get hands-on experience connecting Kafka to Spark, and work with Kafka Connect
- Understand how to use Amazon EMR for processing data using Hadoop ecosystem tools



## Who should enroll in this program?

A big data engineer builds and maintains data structures and architectures for data ingestion, processing, and deployment for large-scale, data-intensive applications. It's a promising career for both new and experienced professionals with a passion for data, including:

- IT professionals
- Banking and finance professionals
- Database administrators
- Beginners in the data engineering domain
- Students in UG/ PG programs

## Learning Path:

Course 1: Big Data for Data Engineering

Course 2: Big Data Hadoop and Spark Developer

Course 3: PySpark Training Course

Course 4: Apache Kafka

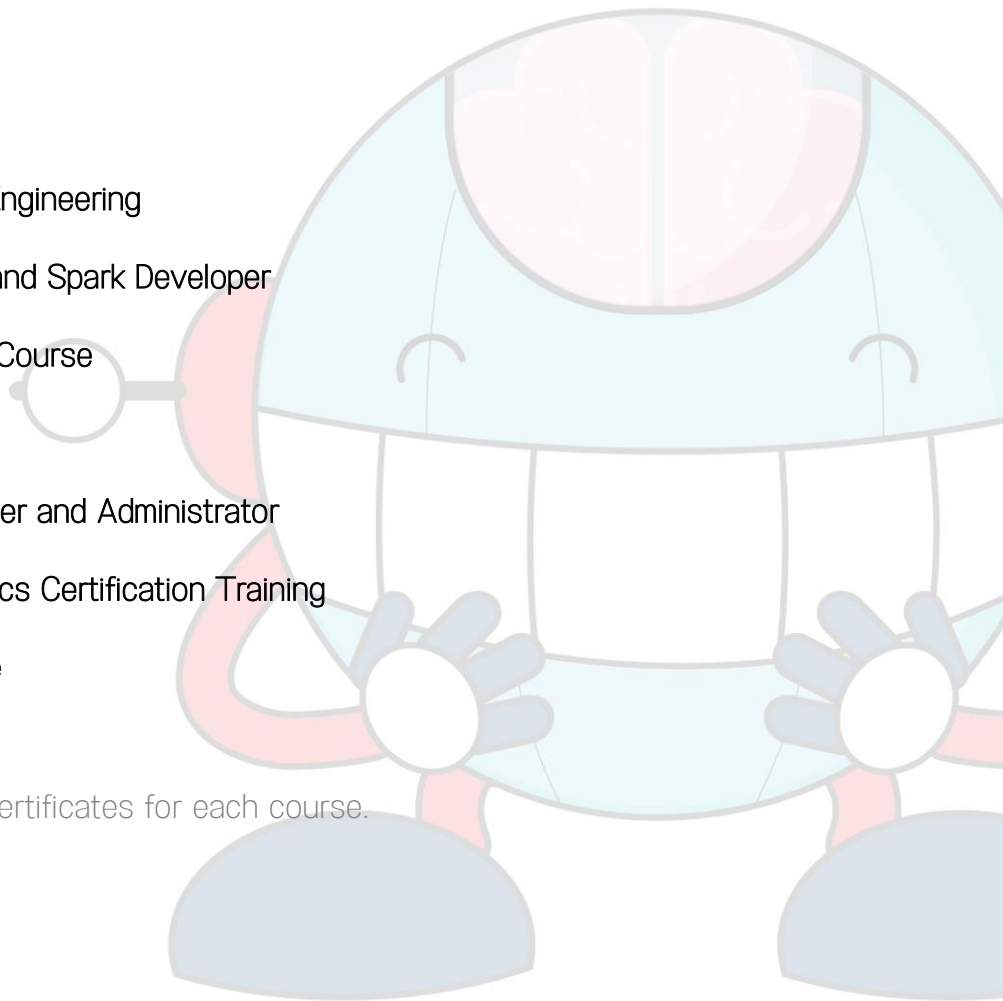
Course 5: MongoDB Developer and Administrator

Course 6: AWS Data Analytics Certification Training

Course 7: Big Data Capstone

(☆) Master's Certificate

\*You will get individual certificates for each course.





## Electives:

### AWS Technical Essentials

This AWS Technical Essentials course teaches you how to navigate the AWS management console; understand AWS security measures, storage, and database options; and gain expertise in web services like RDS and EBS. This course, prepared in line with the latest AWS syllabus, will help you become proficient in identifying and efficiently using AWS services.

### Java Certification

Training This advanced Java Certification Training is designed to guide you through the concepts of Java from introductory techniques to advanced programming skills. This Java course will also provide you with the knowledge of Core Java 8, operators, arrays, loops, methods, and constructors while giving you hands-on experience in JDBC and JUnit framework.

### Industry Master Class – Data Engineering

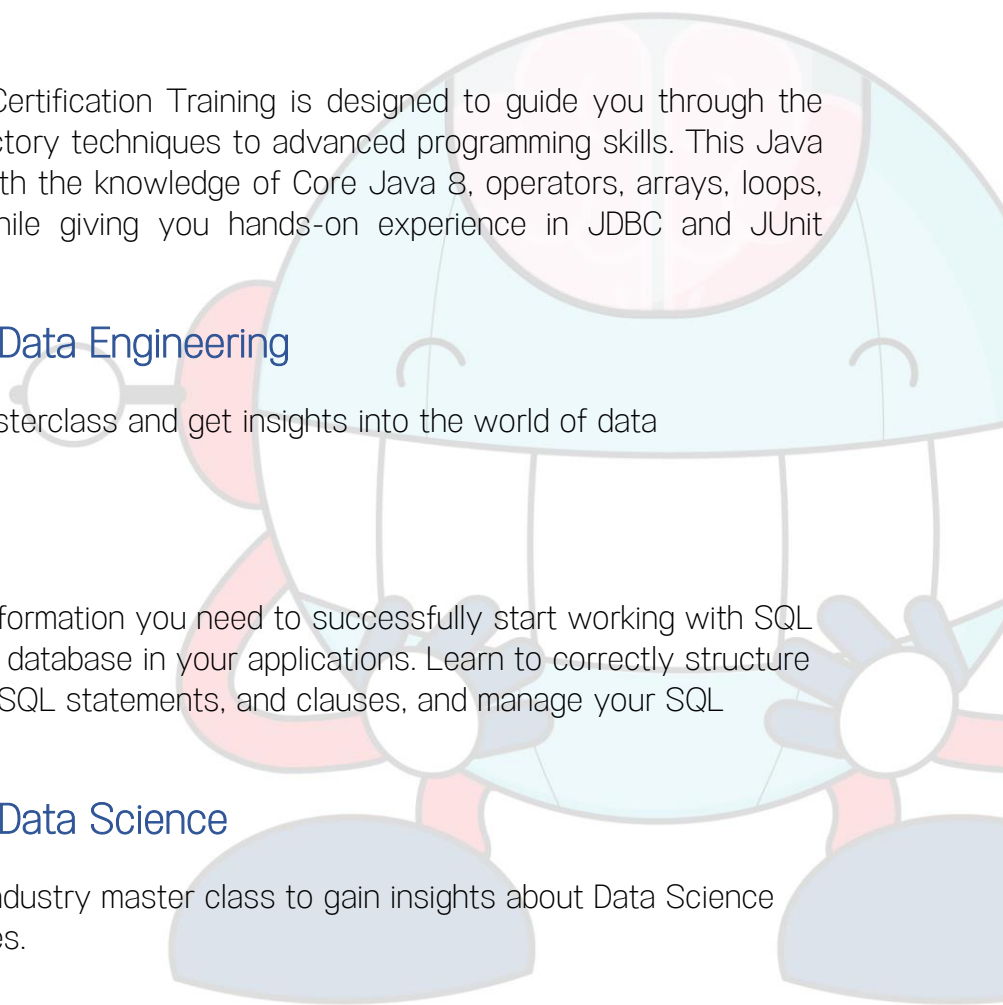
Attend an online interactive Masterclass and get insights into the world of data engineering.

### SQL

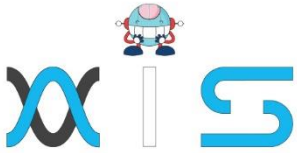
This course gives you all the information you need to successfully start working with SQL databases and make use of the database in your applications. Learn to correctly structure your database, author efficient SQL statements, and clauses, and manage your SQL database for scalable growth.

### Industry Master Class – Data Science

Attend this online interactive industry master class to gain insights about Data Science advancements and AI techniques.







## AIS

With the rising demand in scalable technology, AIS provides tailored goal-setting based on your organization's needs and expectations. With products geared towards the growing needs of your organization's customers and employees, AIS has innovative and value-driven solutions.

### Learning Partners



#### SAS Management, Inc.

SAS Management, Inc. has been a leader in the training, certification and consulting services industry in the Philippines. With offices in Makati, Ortigas and Cebu, Philippines, the company has been the top training and consulting company for over 9 years. In its years of existence, it has provided certificates to over 100,000 professionals including 10,000 participants in the 160+ courses that have been conducted just during the 2020-2021 pandemic alone. The most sought-after courses being offered are ITIL, Project Management Professional (PMP)®, COBIT 5, Six Sigma Yellow Belt, Six Sigma Green Belt, PRINCE2, and organizational skills, among others.



#### Simplilearn

Simplilearn, based in California and India, is the world's #1 online bootcamp and one of the world's the leading certification and training providers. Simplilearn trained over 2,000,000 professionals with 2,000+ trainers and provides over 400 different courses.

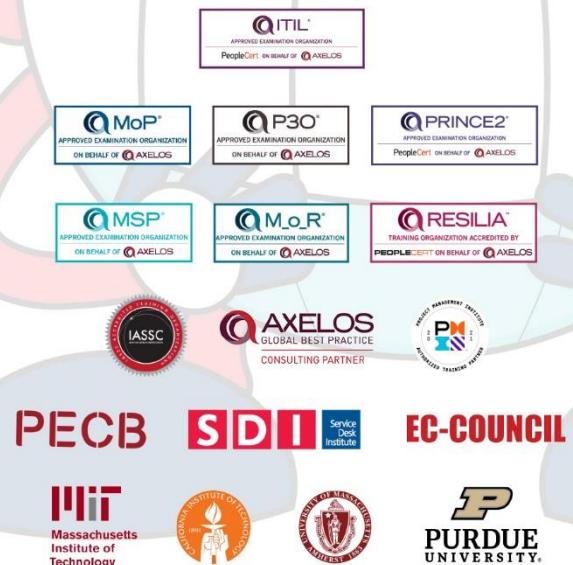
### Technology Partner

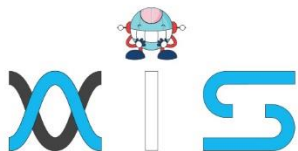


#### Freshworks

With over 40,000 customers, Freshworks is a business solutions software provider with products ranging from IT helpdesk and service desk, customer relationship management, live chat, marketing automation, phone system, and HR.

### Partners & Affiliates





*The program presented, as well as a wide range of programs are products of the partnership of AIS, SAS Management, Inc., and Simplilearn. With a common goal of providing the best practice of facilitating learning with an array of choices available in the online platform in this time of digitization.*

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