

BIG DATA & DATA SCIENCE MASTERS PROGRAM

COURSE CONTENT

About IntelliPaat

IntelliPaat is an e-learning and professional certification company for software developers, IT administrators, and other professionals, headquartered in Bangalore, India. The training is offered in three major modes: Online instructor Led Trainings, Self-paced e-learning trainings, and Corporate Trainings.



6, 22,205+
Learners











150+
Corporate Clients



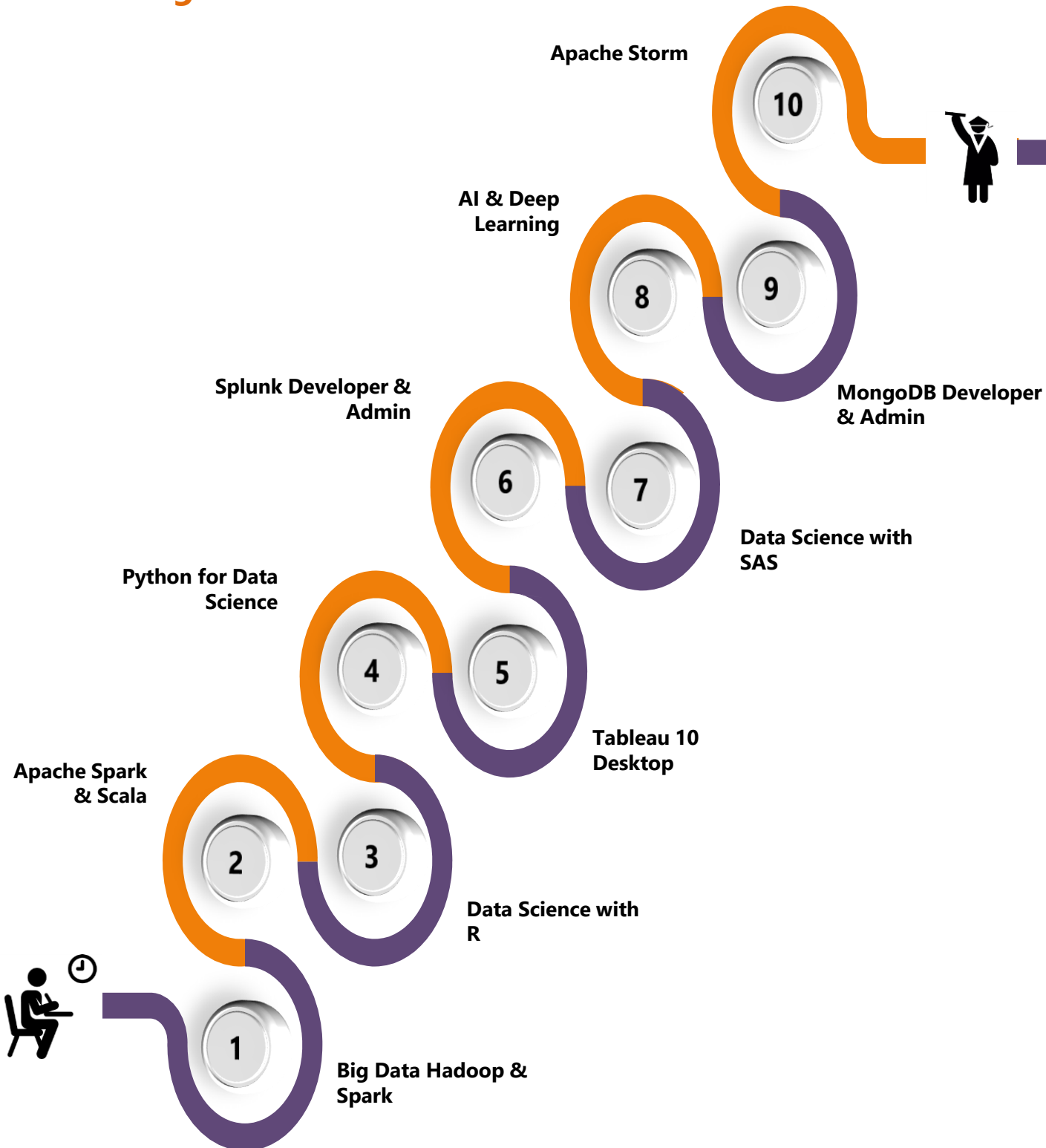
250+
Courses

About The Course

Intellipaats Big Data Data Science master's program will provide you in-depth knowledge on designing, developing and deploying data science and big data application in real world along with performance tuning of the application. This course will make you Big Data & Data Science Architect and by the end of the course you will have expertise on Hadoop Developer, Administration, testing and analysis Modules, working with real-time analytics, statistical computing, parsing machine-generated data, creating NoSQL applications and finally the domain of deep Learning in artificial intelligence.

 <p>Instructor Led Training</p> <p>294 Hrs of highly interactive instructor led training</p>	 <p>Self-Paced Training</p> <p>365 Hrs of Self-Paced sessions with Lifetime access</p>	 <p>Exercise and project work</p> <p>528 Hrs of real-time projects after every module</p>	 <p>Lifetime Access</p> <p>Lifetime access and free upgrade to latest version</p>
 <p>24X7 Support</p> <p>Lifetime 24*7 technical support and query resolution</p>	 <p>Get Certified</p> <p>Get global industry recognized certifications</p>	 <p>Job Assistance</p> <p>Job assistance through 80+ corporate tie-ups</p>	 <p>Flexi Scheduling</p> <p>Attend multiple batches for lifetime & stay updated.</p>

Learning Path



Why take this Course?

This IntelliPaat training program has been created keeping in mind the needs of the industry. You will gain mastery in the complete domain of Data Science, Hadoop, Artificial Intelligence, Machine Learning to take on various roles and responsibilities in today's. So you will be better prepared to take on challenging roles in the Big Data and Data Science domains at top-notch salaries.

Index

Instructor Led

1. [Big Data Hadoop and Spark](#)
2. [Apache Spark and Scala](#)
3. [Data Science with R](#)
4. [Python for Data Science](#)
5. [Tableau Desktop 10](#)
6. [Data Science with SAS](#)
7. [Splunk Developer and Admin](#)
8. [AI and Deep Learning](#)
9. [MongoDB Developer & Admin](#)
10. [Apache Storm](#)

Self-Paced Courses

1. [Apache Hbase](#)
2. [Apache Cassandra](#)
3. [Couchbase](#)
4. [Mahout](#)
5. [Apache Solr](#)
6. [Linux](#)
7. [Java](#)
8. [Apache Kafka](#)

Big Data Hadoop & Spark

Learning Objective

It is a comprehensive Hadoop Big Data training course designed by industry experts considering current industry job requirements to help you learn Big Data Hadoop and Spark modules. This is an industry recognized Big Data certification training course that is a combination of the training courses in Hadoop developer, Hadoop administrator, Hadoop testing, and analytics with Apache Spark. This Cloudera Hadoop & Spark training will prepare you to clear Cloudera CCA 175 big data certification.

Topics

- ❖ Installation of Hadoop and Hadoop Ecosystems
- ❖ Introduction to Big Data Hadoop. Understanding HDFS & Mapreduce
- ❖ Deep Dive in Mapreduce
- ❖ Introduction to Hive
- ❖ Advance Hive & Impala
- ❖ Introduction to Pig
- ❖ Flume, Sqoop & HBase
- ❖ Writing Spark Applications using Scala
- ❖ Spark framework
- ❖ RDD in Spark
- ❖ Data frames and Spark SQL
- ❖ Machine Learning using Spark (Mlib)
- ❖ Spark Streaming
- ❖ Hadoop Administration - Multi Node Cluster Setup using Amazon ec2
- ❖ Hadoop Administration - Cluster Configuration
- ❖ Hadoop Administration - Maintenance, Monitoring and Troubleshooting
- ❖ ETL tool connectivity with Hadoop & Oozie
- ❖ Project Solution Discussion and Cloudera Certification Tips & Tricks

Apache Spark and Scala

Learning Objective

It offer you hands-on knowledge to create Spark applications using Scala programming. It gives you a clear comparison between Spark and Hadoop. The course provides you techniques to increase application performance and enable high-speed processing using Spark RDDs as well as help in customization of Spark using Scala.

Topics

- ❖ Introduction of Scala
- ❖ Pattern Matching
- ❖ Executing the Scala Code
- ❖ Classes concept in Scala
- ❖ Case classes and pattern matching
- ❖ Concepts of traits with example
- ❖ Scala java interoperability
- ❖ Scala collections
- ❖ Mutable collections vs. Immutable collections
- ❖ Use case bobsrocks package
- ❖ Introduction to Spark
- ❖ Spark Basics
- ❖ Working with RDDs in Spark
- ❖ Aggregating Data with Pair RDDs
- ❖ Writing and Deploying Spark Application
- ❖ Parallel Processing
- ❖ Spark RDD Persistence
- ❖ Spark Streaming & Mlib
- ❖ Improving Spark Performance
- ❖ Spark SQL and Data Frames
- ❖ Scheduling / Partitioning

Data Science with R

Learning Objective

This will help you be master in Data Manipulation with R programming, Data visualization, advance analytics topics like regressions, data mining using RStudio. You will work on real life projects and assignments to master data analytics.

Topics

- ❖ Introduction to Data Science and Statistical Analytics
- ❖ Introduction to R
- ❖ Data Exploration, Data Wrangling and R Data Structure
- ❖ Data Visualization
- ❖ Introduction to Statistics
- ❖ Predictive Modeling - 1 (Linear Regression)
- ❖ Predictive Modeling - 2 (Logistic Regression)
- ❖ Decision Trees
- ❖ Random Forest
- ❖ Unsupervised learning
- ❖ Association Analysis and Recommendation engine
- ❖ Sentiment Analysis
- ❖ Time Series

Python for Data Science

Learning Objective

This course lets you master the concepts of widely-used and powerful programming language Python. You will gain hands-on experience in working with the various Python packages like SciPy, NumPy, Matplotlib, Lambda function and more. You will work on hands-on projects in the domain of python and apply it for various domains of big data, data science and machine learning.

Topics

- ❖ Basic constructs of Python language
- ❖ Writing Object Oriented Program in Python and connecting with Database
- ❖ File Handling, Exception Handling in Python
- ❖ Mathematical Computing with Python (NumPy)
- ❖ Scientific Computing with Python (SciPy)
- ❖ Data Visualization (Matplotlib)
- ❖ Data Analysis and Machine Learning (Pandas) / Data Manipulation with Python
- ❖ Machine Learning, Natural Language Processing (Scikit-Learn)
- ❖ Web Scraping for Data Science
- ❖ Python on Hadoop
- ❖ Writing Spark code using Python

Tableau Desktop 10

Learning Objective

This will help you master building interactive tableau dashboards and learn data visualization. This Tableau course will prepare you for Tableau Desktop Qualified Associate Certification exam. In this Tableau certification training you will also learn Tableau desktop and public integration with R & Big data. It is best suited for software developers, BI professionals, system and IT administrators.

Topics

- ❖ Introduction to Data Visualization and Power of Tableau
- ❖ Architecture of Tableau
- ❖ Working with Metadata & Data Blending
- ❖ Creation of sets
- ❖ Working with Filters
- ❖ Organizing Data and Visual Analytics
- ❖ Working with Mapping
- ❖ Working with Calculations & Expressions
- ❖ Working with Parameters
- ❖ Charts and Graphs
- ❖ Dashboards and Stories
- ❖ Integration of Tableau with R and Hadoop

Data Science with SAS

Learning Objective

This will help you in learning the domains of business analytics and business intelligence. Upon completion of this SAS Training online you will have enough proficiency in reading spreadsheets, databases, use SAS functions for manipulating this data and debugging it. This Base SAS certification training also includes data mining, data analytics, modeling techniques, visualization of data, predictive analysis and extracting insights through real world case studies.

Topics

- ❖ Introduction to SAS
- ❖ SAS Enterprise Guide
- ❖ SAS Operators & Functions
- ❖ Compilation & Execution
- ❖ Using Variables
- ❖ Creation and Compilation of SAS Data sets
- ❖ SAS Procedures
- ❖ Input statement and formatted input
- ❖ SAS FORMAT
- ❖ SAS Graphs
- ❖ Interactive Data Processing
- ❖ Data Transformation Function
- ❖ Output Delivery System (ODS)
- ❖ SAS MACROS
- ❖ PROC SQL
- ❖ Advanced Base SAS
- ❖ Summarization Reports

Splunk Developer and Admin

Learning Objective

It includes Splunk Developer and Splunk Administration training. As part of this Splunk course you will work on searching, sharing, saving Splunk results, creating tags, generating reports and charts, installing and configuring Splunk, monitoring, scaling and indexing large volumes of searches and analyzing it using the Splunk tool.

Topics

- ❖ Splunk Development concepts
- ❖ Basic Searching & Using Fields in Searches
- ❖ Saving and Scheduling Searches
- ❖ Creating Alerts & Scheduled Reports
- ❖ Tags and Event Types
- ❖ Creating and Using Macros
- ❖ Workflow & Splunk Search Commands
- ❖ Transforming & Reporting Commands
- ❖ Mapping and Single Value Commands
- ❖ Splunk Reports & visualizations
- ❖ Analyzing, Calculating and Formatting Results
- ❖ Correlating Events & Enriching Data with Lookups
- ❖ Creating Reports and Dashboards
- ❖ Getting started with Parsing
- ❖ Using Pivot
- ❖ Common Information Model (CIM) Add-On
- ❖ Overview of Splunk and its Installation
- ❖ Distributed Management Console
- ❖ Introduction to Splunk App
- ❖ Splunk indexes and users
- ❖ Splunk configuration files
- ❖ Splunk Deployment Management
- ❖ Splunk Indexes
- ❖ User roles and authentication
- ❖ Splunk Administration Environment
- ❖ Basic Production Environment
- ❖ Splunk Search Engine
- ❖ Various Splunk Input Methods
- ❖ Splunk User & Index Management
- ❖ Machine Data Parsing
- ❖ Search Scaling and Monitoring
- ❖ Splunk Cluster implementation

AI and Deep Learning

Learning Objective

This training course offers the comprehensive Deep Learning training that will help you to work on the cutting-edge of artificial intelligence. As part of the training you will master the various aspects of artificial neural networks, supervised and unsupervised learning, logistic regression with neural network mindset, binary classification, vectorization, Python for scripting machine learning applications.

Topics

- ❖ Introduction to Neural Networks
- ❖ Multi-layered Neural Networks
- ❖ Regularization techniques (L1, L2)
- ❖ CNN: Convolutional Neural Networks
- ❖ LSTM: Long Short Term Memory
- ❖ Hidden Markov
- ❖ Chatbots

MongoDB Developer & Admin

Learning Objective

This is a very extensive course in MongoDB that is one of the most widely used NoSQL tools in the Big Data domain. Some of the topics that are included in this MongoDB Training are installation of MongoDB, JSON, Data Modeling and Schema Design. You will gain enough expertise in the framework of Data Monitoring, Indexing, and Aggregation.

Topics

- ❖ Introduction to NoSQL and MongoDB
- ❖ MongoDB Installation
- ❖ Importance of NoSQL
- ❖ CRUD Operations
- ❖ Data Modeling & Schema Design
- ❖ Data Management & Administration
- ❖ Data Indexing and Aggregation
- ❖ MongoDB Security
- ❖ Working with Unstructured Data

Apache Storm

Learning Objective

This will give you a working knowledge of this open source Storm computational engine. You will be able to do distributed real-time data processing and come up with valuable insights. You will learn about the deployment and development of Apache Storm applications in real world for handling Big data and implement various analytical tools for powerful enterprise-grade solutions..

Topics

- ❖ Understanding Architecture of Storm
- ❖ Installation of Apache Storm
- ❖ Introduction to Apache Storm
- ❖ Apache Kafka Installation
- ❖ Apache Storm Advanced
- ❖ Apache Storm Topology
- ❖ Overviews of Trident
- ❖ Storm Components & Classes
- ❖ Cassandra Introduction
- ❖ Boot Stripping

Self-Paced Courses

Hbase

Our HBase course lets you master the powerful NoSQL distributed database. This HBase training provides a detailed understanding of HBase and no-sql concepts as well as you will learn HBase architecture, data analytics using HBase, integration with Hive, monitoring cluster using ZooKeeper, advanced operations in HBase like integration and working with Hadoop ecosystem.

Cassandra

This Cassandra course will provide you extensive knowledge on Cassandra concepts, high-scalable data models and the Cassandra architecture which will enable you to build applications for big data. You will learn Cassandra configuration, installation, architecture, data modelling, Hadoop integration. Work on real life industry projects.

Couchbase

Our Couchbase course provides hands-on experience to master the multi-model NoSQL file-oriented database. You will learn Couchbase distributed architecture, Couchbase Server, searching, querying, indexing data, Couchbase flexible data model, get hands-on experience in working with Couchbase Server that can store credentials and key-values.

Mahout

This Apache Mahout course covers Introduction to Mahout, Machine-learning, Recommendations using Mahout, Classifiers and Recommenders, Collaborative Filtering process, Clustering process, Document Clustering, Classification Data, Pattern Mining, Pearson Correlation and Frequent Pattern Growth.

Apache Solr

Our Apache Lucene Solr training course lets you master Solr. Some of the major topics covered in this Apache Solr training are introduction to Apache Lucene, Solr Installation, Solr Search, Sorting, Indexing and Updating schema

Linux

Our Linux training course lets you master the Linux OS. This is an in-depth Training Course that gives you all the skills needed for working as a Linux Administrator. You will learn about the Red Hat System, installation, managing the boot processes, performing various operations, understanding Linux Kernel, testing and debugging.

Java

This comprehensive course lets you master Java programming language. We provide the best online training classes to help you learn OOP concepts, J2EE, core and advanced Java, JDBC, Objects & Classes. You will work on real world industry projects

Apache Kafka

Our Apache Kafka training course will give you hands-on experience to master the real-time stream processing platform. Some of the topics included in this online training course are the Kafka API, creating Kafka clusters, integration of Kafka with the Big Data Hadoop ecosystem along with Spark, Storm and Maven integration.

Project Works

Course	Industry/Domain	Project
Big Data Hadoop & Spark	General	Working with Mapreduce, Hive, Sqoop
	Media	Work on MovieLens data for finding top movies
	Banking	YARN project - End to End PoC
	Banking	Table Partitioning in Hive
	Social Network	Connecting Pentaho with Hadoop
	General	Multi Node Cluster setup
	General	Hadoop Testing using MRUnit
	Internet Services	Hadoop Weblog Analytics
	General	Hadoop Maintenance
	Social Network	Twitter Sentimental Analysis
	Sports	Analysing IPL T20 Cricket
	Entertainment	Movie Recommendation
	Social Network	Twitter API integration for tweet Analysis
	Internet Services	Data Exploration using Spark SQL - Wikipedia
Data Science With R	General	Understanding Cold Start Problem in Data Science
	Entertainment	Recommendation for Movie, Summary
	Ecommerce	Making sense of Customer Buying Pattern
	Banking	Fraud Detection in Banking System
Data Science with Python	General	Python web Scraping for Data Science
	Software	Create a password generator
	Banking	Impact of pre-paid plans on the preferences of investors
	Banking	Prediction of Stock prices
	Software	Server logs/ Firewall logs
Tableau 10 Desktop	Sales	Tableau Interactive Dashboards
	Crime	Segmenting types of crimes and their frequency
	Healthcare	Visual mapping between Vaccination rate and Measles outbreak
	Retail	Analysing market performance
Splunk	General	Creating dashboards and report - unstructured employee data
	General	Field Extraction
Data Science with SAS	Healthcare	Categorization of patients based on count of drugs for their therapy
	Sales	Build Revenue projections reports
	Banking	Impact of pre-paid plans on the preferences of investors
	Analytics	k-Means Cluster analysis on iris dataset
Deep Learning with TensorFlow	Internet Services	Image recognition with Tensorflow
	General	Handwriting recognition with Neural Networks
	Ecommerce	Building an AI-based Chatbot
	Ecommerce	Ecommerce product recommendation
MongoDB	General	Working with MongoDB JavaDriver
Apache Storm	General	Call log analysis using Trident
	Internet Services	Twitter Data Analysis using Trident
	General	US Presidential Election Result Analysis using Trident DRPC Query

Job Assistance Program

Intellipaate is offering job assistance to all the learners who have completed the training. You should get a minimum of 60% marks in the qualifying exam to avail job assistance.

Intellipaate has exclusive tie-ups with over 80 MNCs for placements.



Successfully finish the training



Get your resume updated



Start receiving interview calls

Intellipaate Alumni Working in Top Companies



Kavita Mehra 

Hadoop Developer at TCS

The classes were highly interactive and also practical oriented. The office staff was cordial and co-operative. Every teaching session was recorded each day and was put on-line by the institute which was really helpful. The trainer was very patient and able to solve or give some hints to solve all the questions posed to him



Sameer Gupta 

Business Intelligence Consultant at IBM

I enjoyed this course from the very first session. The content guides you from very basic approach of the fundamentals to the advanced level with practical knowledge in just few days of training



Vikrant Singh 

Machine Learning & Big Data Analyst at JPMorgan Chase & Co.

It was a wonderful experience and learning from Intellipaate trainers. The trainers were hands on and provided real time scenario's. For me learning cutting edge and latest technologies intellipaate is the right place

[More Customer Reviews](#)

Our Clients

ERICSSON



SONY



+80 Corporates

Frequently Asked Questions

Q 1. What is the criterion for availing the IntelliPaat job assistance program?

Ans. All IntelliPaat learners who have successfully completed the training post April 2017 are directly eligible for the IntelliPaat job assistance program.

Q 2. Which are the companies that I can get placed in?

Ans. We have exclusive tie-ups with MNCs like Ericsson, Cisco, Cognizant, Sony, Mu Sigma, Saint-Gobain, Standard Chartered, TCS, Genpact, Hexaware, and more. So you have the opportunity to get placed in these top global companies.

Q 3. Do I need to have prior industry experience for getting an interview call?

Ans. There is no need to have any prior industry experience for getting an interview call. In fact, the successful completion of the IntelliPaat certification training is equivalent to six months of industry experience. This is definitely an added advantage when you are attending an interview.

Q 4. If I don't get a job in the first attempt, can I get another chance?

Ans. Definitely, yes. Your resume will be in our database and we will circulate it to our MNC partners until you get a job. So there is no upper limit to the number of job interviews you can attend.

Q 5. Does IntelliPaat guarantee a job through its job assistance program?

Ans. IntelliPaat does not guarantee any job through the job assistance program. However, we will definitely offer you full assistance by circulating your resume among our affiliate partners.