

Pyspark Syllabus:

Python Programming Spark:

- (a) Python Setup
- (b) Python Object and Data Structure Basics
- (c) Python Comparison Operators
- (d) Python Statements
- (e) Methods and Functions

Core Spark:

- (a) Writing a Core Spark application using Python
- (b) How we can initialize an Spark application
- (c) Running Spark jobs on cluster using YARN
- (d) How to create an RDD
- (e) How to create an RDD using file or using a directory in HDFS
- (f) How we can persist an RDD on disk or in memory
- (g) How to apply Spark transformations on an RDD using filtering and aggregations
- (h) Ways to perform actions on an Spark RDD
- (i) Ways to create and use broadcast variables and accumulators
- (j) How to configure Spark properties
- (k) Ways to ingest data using SparkSession
- (l) How we can sort the results and write this out to HDFS(Hadoop) or other destinations supported

Spark SQL:

- (a) How to Create Spark DataFrames from an existing RDD
- (b) How we can Perform operations on a DataFrame
- (c) How to Write a Spark SQL application
- (d) Using Hive with ORC from Spark SQL
- (e) Writing a Spark SQL application that directly reads and writes data from Hive tables
- (f) Ways to Invoke SQL API or SparkSession SQL functionality to select and produce results
 - Using join capabilities produce analytic results
- (g) How to rename a DataFrame/Dataset columns to produce best results

Spark Streaming:

- (a) Invoking and using Spark structured streaming to ingest data in real time
- (b) Invoking streaming transformations and aggregations to produce analytic results
- (c) Invoking spark-submit utility on existing Spark application using proper arguments