

N-R Team

E Navaneet Kumar, Rithvika Paladugu

In [1]:

```
!apt-get install openjdk-8-jdk-headless -qq > /dev/null
!wget -q https://downloads.apache.org/spark/spark-3.5.1/spark-3.5.1-bin-hadoop3.tgz
!tar -xvf spark-3.5.1-bin-hadoop3.tgz
!pip install -q findspark
```

```
spark-3.5.1-bin-hadoop3/
spark-3.5.1-bin-hadoop3/sbin/
spark-3.5.1-bin-hadoop3/sbin/spark-config.sh
spark-3.5.1-bin-hadoop3/sbin/stop-slave.sh
spark-3.5.1-bin-hadoop3/sbin/stop-mesos-dispatcher.sh
spark-3.5.1-bin-hadoop3/sbin/start-workers.sh
spark-3.5.1-bin-hadoop3/sbin/start-slaves.sh
spark-3.5.1-bin-hadoop3/sbin/start-all.sh
spark-3.5.1-bin-hadoop3/sbin/stop-all.sh
spark-3.5.1-bin-hadoop3/sbin/workers.sh
spark-3.5.1-bin-hadoop3/sbin/start-mesos-dispatcher.sh
spark-3.5.1-bin-hadoop3/sbin/spark-daemon.sh
spark-3.5.1-bin-hadoop3/sbin/decommission-worker.sh
spark-3.5.1-bin-hadoop3/sbin/slaves.sh
spark-3.5.1-bin-hadoop3/sbin/stop-mesos-shuffle-service.sh
spark-3.5.1-bin-hadoop3/sbin/stop-history-server.sh
spark-3.5.1-bin-hadoop3/sbin/stop-worker.sh
spark-3.5.1-bin-hadoop3/sbin/decommission-slave.sh
spark-3.5.1-bin-hadoop3/sbin/stop-thriftserver.sh
spark-3.5.1-bin-hadoop3/sbin/start-worker.sh
spark-3.5.1-bin-hadoop3/sbin/stop-slaves.sh
spark-3.5.1-bin-hadoop3/sbin/start-connect-server.sh
spark-3.5.1-bin-hadoop3/sbin/start-thriftserver.sh
spark-3.5.1-bin-hadoop3/sbin/start-history-server.sh
spark-3.5.1-bin-hadoop3/sbin/stop-connect-server.sh
spark-3.5.1-bin-hadoop3/sbin/spark-daemons.sh
spark-3.5.1-bin-hadoop3/sbin/start-slave.sh
spark-3.5.1-bin-hadoop3/sbin/start-master.sh
spark-3.5.1-bin-hadoop3/sbin/start-mesos-shuffle-service.sh
spark-3.5.1-bin-hadoop3/sbin/stop-master.sh
spark-3.5.1-bin-hadoop3/sbin/stop-workers.sh
spark-3.5.1-bin-hadoop3/licenses/
spark-3.5.1-bin-hadoop3/licenses/LICENSE-automaton.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-d3.min.js.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-scopt.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-leveldbjni.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-blas.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-spire.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-paranamer.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-matchMedia-polyfill.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-jaxb-runtime.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-zstd-jni.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-pyrolite.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-dagre-d3.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-javax-transaction-transaction-api.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-json-formatter.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-jsp-api.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-arpack.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-AnchorJS.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-JLargeArrays.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-protobuf.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-pmmml-model.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-slf4j.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-py4j.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-datatables.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-d3.js.txt
```

spark-3.5.1-bin-hadoop3/licenses/LICENSE-join.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-bootstrap.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-jakarta.activation-api.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-jline.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-vis-timeline.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-jakarta-annotation-api
spark-3.5.1-bin-hadoop3/licenses/LICENSE-zstd.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-respond.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-jakarta.ws.rs-api
spark-3.5.1-bin-hadoop3/licenses/LICENSE-graphlib-dot.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-modernizr.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-kryo.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-dnsjava.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-cloudpickle.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-janino.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-sbt-launch-lib.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-javolution.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-mustache.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-f2j.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-jodd.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-machinist.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-JTransforms.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-CC0.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-jakarta.xml.bind-api.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-reflectasm.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-sorttable.js.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-istack-commons-runtime.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-minlog.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-jquery.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-antlr.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-xmlenc.txt
spark-3.5.1-bin-hadoop3/licenses/LICENSE-javassist.html
spark-3.5.1-bin-hadoop3/licenses/LICENSE-re2j.txt
spark-3.5.1-bin-hadoop3/data/
spark-3.5.1-bin-hadoop3/data/graphx/
spark-3.5.1-bin-hadoop3/data/graphx/followers.txt
spark-3.5.1-bin-hadoop3/data/graphx/users.txt
spark-3.5.1-bin-hadoop3/data/streaming/
spark-3.5.1-bin-hadoop3/data/streaming/AFINN-111.txt
spark-3.5.1-bin-hadoop3/data/mllib/
spark-3.5.1-bin-hadoop3/data/mllib/sample_multiclass_classification_data.txt
spark-3.5.1-bin-hadoop3/data/mllib/sample_svm_data.txt
spark-3.5.1-bin-hadoop3/data/mllib/kmeans_data.txt
spark-3.5.1-bin-hadoop3/data/mllib/streaming_kmeans_data_test.txt
spark-3.5.1-bin-hadoop3/data/mllib/sample_movielens_data.txt
spark-3.5.1-bin-hadoop3/data/mllib/images/
spark-3.5.1-bin-hadoop3/data/mllib/images/origin/
spark-3.5.1-bin-hadoop3/data/mllib/images/origin/kittens/
spark-3.5.1-bin-hadoop3/data/mllib/images/origin/kittens/29.5.a_b_EGDP022204.jpg
spark-3.5.1-bin-hadoop3/data/mllib/images/origin/kittens/54893.jpg
spark-3.5.1-bin-hadoop3/data/mllib/images/origin/kittens/DP802813.jpg
spark-3.5.1-bin-hadoop3/data/mllib/images/origin/kittens/not-image.txt
spark-3.5.1-bin-hadoop3/data/mllib/images/origin/kittens/DP153539.jpg
spark-3.5.1-bin-hadoop3/data/mllib/images/origin/multi-channel/
spark-3.5.1-bin-hadoop3/data/mllib/images/origin/multi-channel/BGRA_alpha_60.png
spark-3.5.1-bin-hadoop3/data/mllib/images/origin/multi-channel/chr30.4.184.jpg
spark-3.5.1-bin-hadoop3/data/mllib/images/origin/multi-channel/BGRA.png
spark-3.5.1-bin-hadoop3/data/mllib/images/origin/multi-channel/grayscale.jpg
spark-3.5.1-bin-hadoop3/data/mllib/images/origin/license.txt
spark-3.5.1-bin-hadoop3/data/mllib/images/license.txt
spark-3.5.1-bin-hadoop3/data/mllib/ridge-data/
spark-3.5.1-bin-hadoop3/data/mllib/ridge-data/lpsa.data
spark-3.5.1-bin-hadoop3/data/mllib/als/
spark-3.5.1-bin-hadoop3/data/mllib/als/sample_movielens_ratings.txt
spark-3.5.1-bin-hadoop3/data/mllib/als/test.data
spark-3.5.1-bin-hadoop3/data/mllib/sample_binary_classification_data.txt
spark-3.5.1-bin-hadoop3/data/mllib/gmm_data.txt
spark-3.5.1-bin-hadoop3/data/mllib/sample_libsvm_data.txt
spark-3.5.1-bin-hadoop3/data/mllib/pagerank_data.txt
spark-3.5.1-bin-hadoop3/data/mllib/sample_isotonic_regression_libsvm_data.txt
spark-3.5.1-bin-hadoop3/data/mllib/sample_linear_regression_data.txt
spark-3.5.1-bin-hadoop3/data/mllib/sample_lda_data.txt
spark-3.5.1-bin-hadoop3/data/mllib/sample_logistic_regression_data.txt

spark-3.5.1-bin-hadoop3/data/mllib/sample_ipgrowsn.txt
spark-3.5.1-bin-hadoop3/data/mllib/sample_kmeans_data.txt
spark-3.5.1-bin-hadoop3/data/mllib/sample_lda_libsvm_data.txt
spark-3.5.1-bin-hadoop3/data/mllib/pic_data.txt
spark-3.5.1-bin-hadoop3/data/artifact-tests/
spark-3.5.1-bin-hadoop3/data/artifact-tests/smallJar.jar
spark-3.5.1-bin-hadoop3/data/artifact-tests/junitLargeJar.jar
spark-3.5.1-bin-hadoop3/data/artifact-tests/crc/
spark-3.5.1-bin-hadoop3/data/artifact-tests/crc/smallJar.txt
spark-3.5.1-bin-hadoop3/data/artifact-tests/crc/junitLargeJar.txt
spark-3.5.1-bin-hadoop3/data/artifact-tests/crc/README.md
spark-3.5.1-bin-hadoop3/jars/
spark-3.5.1-bin-hadoop3/jars/jersey-container-servlet-2.40.jar
spark-3.5.1-bin-hadoop3/jars/spark-sketch_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/jackson-annotations-2.15.2.jar
spark-3.5.1-bin-hadoop3/jars/netty-transport-native-epoll-4.1.96.Final-linux-x86_64.jar
spark-3.5.1-bin-hadoop3/jars/spire-macros_2.12-0.17.0.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-extensions-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/jline-2.14.6.jar
spark-3.5.1-bin-hadoop3/jars/orc-mapreduce-1.9.2-shaded-protobuf.jar
spark-3.5.1-bin-hadoop3/jars/HikariCP-2.5.1.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-storageclass-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/orc-core-1.9.2-shaded-protobuf.jar
spark-3.5.1-bin-hadoop3/jars/objenesis-3.3.jar
spark-3.5.1-bin-hadoop3/jars/snakeyaml-2.0.jar
spark-3.5.1-bin-hadoop3/jars/parquet-hadoop-1.13.1.jar
spark-3.5.1-bin-hadoop3/jars/httpclient-4.5.14.jar
spark-3.5.1-bin-hadoop3/jars/curator-client-2.13.0.jar
spark-3.5.1-bin-hadoop3/jars/json4s-core_2.12-3.7.0-M11.jar
spark-3.5.1-bin-hadoop3/jars/netty-transport-classes-epoll-4.1.96.Final.jar
spark-3.5.1-bin-hadoop3/jars/netty-transport-native-kqueue-4.1.96.Final-osx-aarch_64.jar
spark-3.5.1-bin-hadoop3/jars/commons-io-2.13.0.jar
spark-3.5.1-bin-hadoop3/jars/jackson-databind-2.15.2.jar
spark-3.5.1-bin-hadoop3/jars/spark-network-common_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/hadoop-yarn-server-web-proxy-3.3.4.jar
spark-3.5.1-bin-hadoop3/jars/netty-codec-socks-4.1.96.Final.jar
spark-3.5.1-bin-hadoop3/jars/hadoop-client-api-3.3.4.jar
spark-3.5.1-bin-hadoop3/jars/curator-recipes-2.13.0.jar
spark-3.5.1-bin-hadoop3/jars/RoaringBitmap-0.9.45.jar
spark-3.5.1-bin-hadoop3/jars/spark-mllib-local_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/spark-hive-thriftserver_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/commons-math3-3.6.1.jar
spark-3.5.1-bin-hadoop3/jars/janino-3.1.9.jar
spark-3.5.1-bin-hadoop3/jars/datanucleus-rdbms-4.1.19.jar
spark-3.5.1-bin-hadoop3/jars/spark-catalyst_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/hive-exec-2.3.9-core.jar
spark-3.5.1-bin-hadoop3/jars/spark-mesos_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/gson-2.2.4.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-node-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/commons-cli-1.5.0.jar
spark-3.5.1-bin-hadoop3/jars/spark-launcher_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/shims-0.9.45.jar
spark-3.5.1-bin-hadoop3/jars/spire_2.12-0.17.0.jar
spark-3.5.1-bin-hadoop3/jars/netty-handler-proxy-4.1.96.Final.jar
spark-3.5.1-bin-hadoop3/jars/algebra_2.12-2.0.1.jar
spark-3.5.1-bin-hadoop3/jars/log4j-slf4j2-impl-2.20.0.jar
spark-3.5.1-bin-hadoop3/jars/json4s-scalap_2.12-3.7.0-M11.jar
spark-3.5.1-bin-hadoop3/jars/ST4-4.0.4.jar
spark-3.5.1-bin-hadoop3/jars/aircompressor-0.26.jar
spark-3.5.1-bin-hadoop3/jars/parquet-column-1.13.1.jar
spark-3.5.1-bin-hadoop3/jars/spark-kubernetes_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-scheduling-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/snappy-java-1.1.10.3.jar
spark-3.5.1-bin-hadoop3/jars/transaction-api-1.1.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-common-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/jackson-core-2.15.2.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-certificates-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/jakarta.ws.rs-api-2.1.6.jar
spark-3.5.1-bin-hadoop3/jars/lapack-3.0.3.jar
spark-3.5.1-bin-hadoop3/jars/netty-codec-http2-4.1.96.Final.jar
spark-3.5.1-bin-hadoop3/jars/netty-transport-native-epoll-4.1.96.Final-linux-aarch_64.jar
spark-3.5.1-bin-hadoop3/jars/JTtransforms-3.1.jar
spark-3.5.1-bin-hadoop3/jars/hive-llap-common-2.2.0.jar

spark-3.5.1-bin-hadoop3/jars/hive-common-2.3.9.jar
spark-3.5.1-bin-hadoop3/jars/json-1.8.jar
spark-3.5.1-bin-hadoop3/jars/hive-storage-api-2.8.1.jar
spark-3.5.1-bin-hadoop3/jars/jsr305-3.0.0.jar
spark-3.5.1-bin-hadoop3/jars/parquet-common-1.13.1.jar
spark-3.5.1-bin-hadoop3/jars/oro-2.0.8.jar
spark-3.5.1-bin-hadoop3/jars/cats-kernel_2.12-2.1.1.jar
spark-3.5.1-bin-hadoop3/jars/breeze-macros_2.12-2.1.0.jar
spark-3.5.1-bin-hadoop3/jars/py4j-0.10.9.7.jar
spark-3.5.1-bin-hadoop3/jars/commons-collections4-4.4.jar
spark-3.5.1-bin-hadoop3/jars/javolution-5.5.1.jar
spark-3.5.1-bin-hadoop3/jars/slf4j-api-2.0.7.jar
spark-3.5.1-bin-hadoop3/jars/spark-network-shuffle_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/tink-1.9.0.jar
spark-3.5.1-bin-hadoop3/jars/arrow-memory-netty-12.0.1.jar
spark-3.5.1-bin-hadoop3/jars/avro-1.11.2.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-networking-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-metrics-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/leveldbjni-all-1.8.jar
spark-3.5.1-bin-hadoop3/jars/jackson-core-asl-1.9.13.jar
spark-3.5.1-bin-hadoop3/jars/hive-shims-common-2.3.9.jar
spark-3.5.1-bin-hadoop3/jars/audience-annotations-0.5.0.jar
spark-3.5.1-bin-hadoop3/jars/scala-parser-combinators_2.12-2.3.0.jar
spark-3.5.1-bin-hadoop3/jars/pickle-1.3.jar
spark-3.5.1-bin-hadoop3/jars/hive-service-rpc-3.1.3.jar
spark-3.5.1-bin-hadoop3/jars/netty-transport-4.1.96.Final.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-batch-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/spire-platform_2.12-0.17.0.jar
spark-3.5.1-bin-hadoop3/jars/hive-common-2.3.9.jar
spark-3.5.1-bin-hadoop3/jars/blas-3.0.3.jar
spark-3.5.1-bin-hadoop3/jars/netty-codec-4.1.96.Final.jar
spark-3.5.1-bin-hadoop3/jars/log4j-api-2.20.0.jar
spark-3.5.1-bin-hadoop3/jars/commons-dbcp-1.4.jar
spark-3.5.1-bin-hadoop3/jars/chill_2.12-0.10.0.jar
spark-3.5.1-bin-hadoop3/jars/commons-compiler-3.1.9.jar
spark-3.5.1-bin-hadoop3/jars/jersey-common-2.40.jar
spark-3.5.1-bin-hadoop3/jars/metrics-json-4.2.19.jar
spark-3.5.1-bin-hadoop3/jars/commons-codec-1.16.0.jar
spark-3.5.1-bin-hadoop3/jars/kryo-shaded-4.0.2.jar
spark-3.5.1-bin-hadoop3/jars/netty-transport-native-kqueue-4.1.96.Final-osx-x86_64.jar
spark-3.5.1-bin-hadoop3/jars/univocity-parsers-2.9.1.jar
spark-3.5.1-bin-hadoop3/jars/json4s-jackson_2.12-3.7.0-M11.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-client-api-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/kubio-1.15.0.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-resource-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/mesos-1.4.3-shaded-protobuf.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-apiextensions-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/hive-metastore-2.3.9.jar
spark-3.5.1-bin-hadoop3/jars/scala-reflect-2.12.18.jar
spark-3.5.1-bin-hadoop3/jars/flatbuffers-java-1.12.0.jar
spark-3.5.1-bin-hadoop3/jars/ivy-2.5.1.jar
spark-3.5.1-bin-hadoop3/jars/jersey-hk2-2.40.jar
spark-3.5.1-bin-hadoop3/jars/breeze_2.12-2.1.0.jar
spark-3.5.1-bin-hadoop3/jars/netty-common-4.1.96.Final.jar
spark-3.5.1-bin-hadoop3/jars/parquet-jackson-1.13.1.jar
spark-3.5.1-bin-hadoop3/jars/hk2-api-2.6.1.jar
spark-3.5.1-bin-hadoop3/jars/arpack-3.0.3.jar
spark-3.5.1-bin-hadoop3/jars/scala-xml_2.12-2.1.0.jar
spark-3.5.1-bin-hadoop3/jars/spark-core_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/lz4-java-1.8.0.jar
spark-3.5.1-bin-hadoop3/jars/joda-time-2.12.5.jar
spark-3.5.1-bin-hadoop3/jars/metrics-jvm-4.2.19.jar
spark-3.5.1-bin-hadoop3/jars/log4j-1.2-api-2.20.0.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-coordination-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/jersey-client-2.40.jar
spark-3.5.1-bin-hadoop3/jars/json4s-ast_2.12-3.7.0-M11.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-apps-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/commons-lang-2.6.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-gatewayapi-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/jackson-mapper-asl-1.9.13.jar
spark-3.5.1-bin-hadoop3/jars/spark-common-utils_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/zstd-jni-1.5.5-4.jar
spark-3.5.1-bin-hadoop3/jars/hadoop-common-2.5.0.jar

spark-3.5.1-bin-hadoop3/jars/joda-core-3.5.2.jar
spark-3.5.1-bin-hadoop3/jars/jpam-1.1.jar
spark-3.5.1-bin-hadoop3/jars/metrics-core-4.2.19.jar
spark-3.5.1-bin-hadoop3/jars/spark-unsafe_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/jakarta.servlet-api-4.0.3.jar
spark-3.5.1-bin-hadoop3/jars/parquet-format-structures-1.13.1.jar
spark-3.5.1-bin-hadoop3/jars/log4j-core-2.20.0.jar
spark-3.5.1-bin-hadoop3/jars/rocksdbjni-8.3.2.jar
spark-3.5.1-bin-hadoop3/jars/hive-shims-scheduler-2.3.9.jar
spark-3.5.1-bin-hadoop3/jars/netty-codec-http-4.1.96.Final.jar
spark-3.5.1-bin-hadoop3/jars/paranamer-2.8.jar
spark-3.5.1-bin-hadoop3/jars/hive-shims-0.23-2.3.9.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-autoscaling-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/scala-collection-compat_2.12-2.7.0.jar
spark-3.5.1-bin-hadoop3/jars/dropwizard-metrics-hadoop-metrics2-reporter-0.1.2.jar
spark-3.5.1-bin-hadoop3/jars/curator-framework-2.13.0.jar
spark-3.5.1-bin-hadoop3/jars/spark-mllib_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/opencsv-2.3.jar
spark-3.5.1-bin-hadoop3/jars/netty-buffer-4.1.96.Final.jar
spark-3.5.1-bin-hadoop3/jars/scala-library-2.12.18.jar
spark-3.5.1-bin-hadoop3/jars/xz-1.9.jar
spark-3.5.1-bin-hadoop3/jars/commons-collections-3.2.2.jar
spark-3.5.1-bin-hadoop3/jars/jackson-dataformat-yaml-2.15.2.jar
spark-3.5.1-bin-hadoop3/jars/datanucleus-core-4.1.17.jar
spark-3.5.1-bin-hadoop3/jars/spark-repl_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/bonecp-0.8.0.RELEASE.jar
spark-3.5.1-bin-hadoop3/jars/guava-14.0.1.jar
spark-3.5.1-bin-hadoop3/jars/zjsonpatch-0.3.0.jar
spark-3.5.1-bin-hadoop3/jars/spark-sql-api_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/netty-all-4.1.96.Final.jar
spark-3.5.1-bin-hadoop3/jars/spark-streaming_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/arrow-format-12.0.1.jar
spark-3.5.1-bin-hadoop3/jars/libthrift-0.12.0.jar
spark-3.5.1-bin-hadoop3/jars/spark-hive_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/netty-resolver-4.1.96.Final.jar
spark-3.5.1-bin-hadoop3/jars/hadoop-shaded-guava-1.1.1.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-httpclient-okhttp-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/hive-shims-2.3.9.jar
spark-3.5.1-bin-hadoop3/jars/metrics-jmx-4.2.19.jar
spark-3.5.1-bin-hadoop3/jars/hive-beeline-2.3.9.jar
spark-3.5.1-bin-hadoop3/jars/jakarta.annotation-api-1.3.5.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-rbac-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/metrics-graphite-4.2.19.jar
spark-3.5.1-bin-hadoop3/jars/activation-1.1.1.jar
spark-3.5.1-bin-hadoop3/jars/jcl-over-slf4j-2.0.7.jar
spark-3.5.1-bin-hadoop3/jars/okhttp-3.12.12.jar
spark-3.5.1-bin-hadoop3/jars/httpcore-4.4.16.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-flowcontrol-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/spark-tags_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/commons-text-1.10.0.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-client-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/javassist-3.29.2-GA.jar
spark-3.5.1-bin-hadoop3/jars/parquet-encoding-1.13.1.jar
spark-3.5.1-bin-hadoop3/jars/commons-pool-1.5.4.jar
spark-3.5.1-bin-hadoop3/jars/zookeeper-jute-3.6.3.jar
spark-3.5.1-bin-hadoop3/jars/xbean-asm9-shaded-4.23.jar
spark-3.5.1-bin-hadoop3/jars/netty-transport-native-unix-common-4.1.96.Final.jar
spark-3.5.1-bin-hadoop3/jars/minlog-1.3.0.jar
spark-3.5.1-bin-hadoop3/jars/avro-mapred-1.11.2.jar
spark-3.5.1-bin-hadoop3/jars/stax-api-1.0.1.jar
spark-3.5.1-bin-hadoop3/jars/jakarta.xml.bind-api-2.3.2.jar
spark-3.5.1-bin-hadoop3/jars/jackson-module-scala_2.12-2.15.2.jar
spark-3.5.1-bin-hadoop3/jars/arrow-vector-12.0.1.jar
spark-3.5.1-bin-hadoop3/jars/antlr-runtime-3.5.2.jar
spark-3.5.1-bin-hadoop3/jars/snakeyaml-engine-2.6.jar
spark-3.5.1-bin-hadoop3/jars/hk2-locator-2.6.1.jar
spark-3.5.1-bin-hadoop3/jars/commons-logging-1.1.3.jar
spark-3.5.1-bin-hadoop3/jars/hive-jdbc-2.3.9.jar
spark-3.5.1-bin-hadoop3/jars/hive-cli-2.3.9.jar
spark-3.5.1-bin-hadoop3/jars/arrow-memory-core-12.0.1.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-discovery-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/logging-interceptor-3.12.12.jar
spark-3.5.1-bin-hadoop3/jars/...

spark-3.5.1-bin-hadoop3/jars/OLargeArrays-1.5.jar
spark-3.5.1-bin-hadoop3/jars/derby-10.14.2.0.jar
spark-3.5.1-bin-hadoop3/jars/hadoop-client-runtime-3.3.4.jar
spark-3.5.1-bin-hadoop3/jars/spark-kvstore_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/commons-compress-1.23.0.jar
spark-3.5.1-bin-hadoop3/jars/jul-to-slf4j-2.0.7.jar
spark-3.5.1-bin-hadoop3/jars/spark-graphx_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-admissionregistration-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/commons-lang3-3.12.0.jar
spark-3.5.1-bin-hadoop3/jars/hive-serde-2.3.9.jar
spark-3.5.1-bin-hadoop3/jars/javax.jdo-3.2.0-m3.jar
spark-3.5.1-bin-hadoop3/jars/arpack_combined_all-0.1.jar
spark-3.5.1-bin-hadoop3/jars/super-csv-2.2.0.jar
spark-3.5.1-bin-hadoop3/jars/hk2-utils-2.6.1.jar
spark-3.5.1-bin-hadoop3/jars/jackson-datatype-jsr310-2.15.2.jar
spark-3.5.1-bin-hadoop3/jars/antlr4-runtime-4.9.3.jar
spark-3.5.1-bin-hadoop3/jars/stream-2.9.6.jar
spark-3.5.1-bin-hadoop3/jars/threeten-extra-1.7.1.jar
spark-3.5.1-bin-hadoop3/jars/spire-util_2.12-0.17.0.jar
spark-3.5.1-bin-hadoop3/jars/jakarta.validation-api-2.0.2.jar
spark-3.5.1-bin-hadoop3/jars/jaxb-runtime-2.3.2.jar
spark-3.5.1-bin-hadoop3/jars/scala-compiler-2.12.18.jar
spark-3.5.1-bin-hadoop3/jars/datasketches-memory-2.1.0.jar
spark-3.5.1-bin-hadoop3/jars/spark-yarn_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-events-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-core-6.7.2.jar
spark-3.5.1-bin-hadoop3/jars/aopalliance-repackaged-2.6.1.jar
spark-3.5.1-bin-hadoop3/jars/avro-ipc-1.11.2.jar
spark-3.5.1-bin-hadoop3/jars/jta-1.1.jar
spark-3.5.1-bin-hadoop3/jars/compress-lzf-1.1.2.jar
spark-3.5.1-bin-hadoop3/jars/annotations-17.0.0.jar
spark-3.5.1-bin-hadoop3/jars/datanucleus-api-jdo-4.2.4.jar
spark-3.5.1-bin-hadoop3/jars/jersey-server-2.40.jar
spark-3.5.1-bin-hadoop3/jars/commons-crypto-1.1.0.jar
spark-3.5.1-bin-hadoop3/jars/jdo-api-3.0.1.jar
spark-3.5.1-bin-hadoop3/jars/jersey-container-servlet-core-2.40.jar
spark-3.5.1-bin-hadoop3/jars/netty-handler-4.1.96.Final.jar
spark-3.5.1-bin-hadoop3/jars/jakarta.inject-2.6.1.jar
spark-3.5.1-bin-hadoop3/jars/chill-java-0.10.0.jar
spark-3.5.1-bin-hadoop3/jars/netty-transport-classes-kqueue-4.1.96.Final.jar
spark-3.5.1-bin-hadoop3/jars/istack-commons-runtime-3.0.8.jar
spark-3.5.1-bin-hadoop3/jars/spark-sql_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/jars/zookeeper-3.6.3.jar
spark-3.5.1-bin-hadoop3/jars/orc-shims-1.9.2.jar
spark-3.5.1-bin-hadoop3/jars/datasketches-java-3.3.0.jar
spark-3.5.1-bin-hadoop3/jars/libfb303-0.9.3.jar
spark-3.5.1-bin-hadoop3/jars/osgi-resource-locator-1.0.3.jar
spark-3.5.1-bin-hadoop3/jars/kubernetes-model-policy-6.7.2.jar
spark-3.5.1-bin-hadoop3/examples/
spark-3.5.1-bin-hadoop3/examples/jars/
spark-3.5.1-bin-hadoop3/examples/jars/spark-examples_2.12-3.5.1.jar
spark-3.5.1-bin-hadoop3/examples/jars/scopt_2.12-3.7.1.jar
spark-3.5.1-bin-hadoop3/examples/src/
spark-3.5.1-bin-hadoop3/examples/src/main/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/graphx/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/graphx/LiveJournalPageRank.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/graphx/SynthBenchmark.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/graphx/Analytics.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/graphx/SSSPExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/graphx/AggregateMessagesExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/graphx/ComprehensiveExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/graphx/PageRank

spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/graphx/PageRankExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/graphx/Connecte
dComponentsExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/graphx/Triangle
CountingExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/SparkALS.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/streaming/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/streaming/SqlNe
tworkWordCount.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/streaming/Custo
mReceiver.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/streaming/Strea
mingExamples.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/streaming/Direc
tKafkaWordCount.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/streaming/Direc
tKerberizedKafkaWordCount.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/streaming/HdfsW
ordCount.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/streaming/Recov
erableNetworkWordCount.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/streaming/RawNe
tworkGrep.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/streaming/State
fulNetworkWordCount.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/streaming/Netwo
rkWordCount.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/streaming/Queue
Stream.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/streaming/click
stream/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/streaming/click
stream/PageViewGenerator.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/streaming/click
stream/PageViewStream.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ExceptionHandli
ngTest.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/SparkPageRank.s
cala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/MiniReadWriteTe
st.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/KMeansExempl
e.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/SummarizerEx
ample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/BucketedRand
omProjectionLSHExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/RFormulaExam
ple.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/NGramExample
.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/NormalizerEx
ample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/LDAExample.s
cala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/MaxAbsScaler
Example.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/LinearRegres
sionWithElasticNetExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/StringIndexe
rExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/FeatureHashe
rExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/RandomForest
Example.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/EstimatorTra
nsformerParamExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/NaiveBayesEx
ample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/ImputerExamp
le.scala

le.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/PipelineExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/LogisticRegressionWithElasticNetExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/MinHashLSHExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/FPGrowthExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/VectorAssemblerExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/GradientBoostedTreeClassifierExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/InteractionExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/DecisionTreeClassificationExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/OneVsRestExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/PolynomialExpansionExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/OneHotEncoderExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/VarianceThresholdSelectorExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/LogisticRegressionExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/ChiSquareTestExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/IsotonicRegressionExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/DeveloperApiExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/ALSEExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/BisectingKMeansExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/LinearSVCEExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/LogisticRegressionSummaryExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/MinMaxScalerExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/MulticlassLogisticRegressionWithElasticNetExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/StopWordsRemoverExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/IndexToStringExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/TokenizerExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/CountVectorizerExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/QuantileDiscretizerExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/TfIdfExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/DataFrameExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/RobustScalerExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/GaussianMixtureExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/VectorIndexerExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/GBTEExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/ModelSelectionViaCrossValidationExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/DecisionTreeExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/GeneralizedLinearRegressionExample.scala

linearRegressionExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/PrefixSpanExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/SQLTransformerExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/VectorSlicerExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/GradientBoostedTreeRegressorExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/UnaryTransformerExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/CorrelationExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/UnivariateFeatureSelectorExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/DecisionTreeRegressionExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/ElementwiseProductExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/RandomForestRegressorExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/AFTSurvivalRegressionExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/RandomForestClassifierExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/StandardScalerExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/ChiSqSelectorExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/BinarizerExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/VectorSizeHintExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/LinearRegressionExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/DCTExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/Word2VecExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/MultilayerPerceptronClassifierExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/FMClassifierExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/FMRegressorExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/PowerIterationClusteringExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/PCAExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/BucketizerExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/ml/ModelSelectionViaTrainValidationSplitExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/SQLDataSourceExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/streaming/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/streaming/StructuredSessionization.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/streaming/StructuredNetworkWordCount.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/streaming/StructuredKafkaWordCount.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/streaming/StructuredKerberizedKafkaWordCount.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/streaming/StructuredNetworkWordCountWindowed.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/streaming/StructuredComplexSessionization.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/SimpleTypedAggregator.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/UserDefinedFunctionExample.scala

typedAggregation.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/UserDefined
UntypedAggregation.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/SparkSQLExa
mple.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/hive/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/hive/SparkH
iveExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/RDDRelation
.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/jdbc/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/jdbc/Exempl
eJdbcConnectionProvider.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/sql/UserDefined
Scalar.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/LocalFileLR.sca
la
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/LocalPi.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/LocalLR.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/SkewedGroupByTe
st.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/SparkPi.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/SparkHdfsLR.sca
la
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/SimpleSkewedGro
upByTest.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/KMeansExa
mple.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/TallSkinn
ySVD.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Streaming
LogisticRegression.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Normalize
rExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/DenseKMea
ns.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/LDAExempl
e.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Stratifie
dSamplingExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/DecisionT
reeRunner.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/PCAOnSour
ceVectorExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/NaiveBaye
sExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Streaming
LinearRegressionExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/LogisticR
egressionWithLBFGSExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/AbstractP
arams.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/FPGrowthE
xample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/RandomFor
estRegressionExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Associati
onRulesExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/SummarySt
atisticsExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/LBFGSExam
ple.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/MultiLabe
lMetricsExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/DecisionT
reeClassificationExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Correlati
onsExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Multivari
ateSummarizer.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Streaming
KMeansExample.scala

kMeansExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/MovieLens
ALS.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/PMMLModel
ExportExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/IsotonicR
egressionExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Bisecting
KMeansExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/SimpleFPG
rowth.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/RandomRDD
Generation.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Recommend
ationExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/TFIDFExam
ple.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/SVMWithSG
DExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/RandomFor
estClassificationExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/GradientB
oostedTreesRunner.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/PCAOnRowM
atrixExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/SampledRD
Ds.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Hypothesi
sTestingKolmogorovSmirnovTestExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/GaussianM
ixtureExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Streaming
TestExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/RankingMe
tricsExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/BinaryCla
ssification.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/PrefixSpa
nExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Hypothesi
sTestingExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/KernelDen
sityEstimationExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/GradientB
oostingRegressionExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/DecisionT
reeRegressionExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Elementwi
seProductExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/TallSkinn
yPCA.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Correlati
ons.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/BinaryCla
ssificationMetricsExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/CosineSim
ilarity.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/SVDExampl
e.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/StandardS
calerExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/ChiSqSele
ctorExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/SparseNai
veBayes.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Multiclas
sMetricsExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/Word2VecE
xample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/GradientB
oostingClassificationExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/LatentDir
ichletClassificationExample.scala

MachineAllocationExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/mllib/PowerIterationClusteringExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/pythonconverters/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/pythonconverters/AvroConverters.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/BroadcastTest.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/HdfsTest.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/LocalALS.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/extensions/
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/extensions/SessionExtensionsWithoutLoader.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/extensions/SparkSessionExtensionsTest.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/extensions/AgeExample.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/extensions/SessionExtensionsWithLoader.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/SparkKMeans.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/LocalKMeans.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/SparkLR.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/SparkRemoteFileTest.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/DFSReadWriteTest.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/SparkTC.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/GroupByTest.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/DriverSubmissionTest.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/LogQuery.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/MultiBroadcastTest.scala
spark-3.5.1-bin-hadoop3/examples/src/main/scala/org/apache/spark/examples/AccumulatorMetricsTest.scala
spark-3.5.1-bin-hadoop3/examples/src/main/r/
spark-3.5.1-bin-hadoop3/examples/src/main/r/streaming/
spark-3.5.1-bin-hadoop3/examples/src/main/r/streaming/structured_network_wordcount.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/lm_with_elastic_net.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/kstest.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/fmRegressor.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/survreg.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/randomForest.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/prefixSpan.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/kmeans.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/powerIterationClustering.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/fpm.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/gbt.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/fmClassifier.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/logit.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/als.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/glm.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/bisectingKmeans.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/decisionTree.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/ml.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/naiveBayes.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/isoreg.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/svmLinear.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/mlp.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/gaussianMixture.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/ml/lda.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/dataframe.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/RSparkSQLExample.R
spark-3.5.1-bin-hadoop3/examples/src/main/r/data-manipulation.R
spark-3.5.1-bin-hadoop3/examples/src/main/scripts/
spark-3.5.1-bin-hadoop3/examples/src/main/scripts/getGpusResources.sh
spark-3.5.1-bin-hadoop3/examples/src/main/java/
spark-3.5.1-bin-hadoop3/examples/src/main/java/...

spark-3.5.1-bin-hadoop3/examples/src/main/java/org/
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/JavaHdfsLR.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/streaming/
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/streaming/JavaDi
rectKerberizedKafkaWordCount.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/streaming/JavaSt
atefulNetworkWordCount.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/streaming/JavaDi
rectKafkaWordCount.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/streaming/JavaCu
stomReceiver.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/streaming/JavaRe
cord.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/streaming/JavaNe
tworkWordCount.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/streaming/JavaQu
eueStream.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/streaming/JavaRe
coverableNetworkWordCount.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/streaming/JavaSq
lNetworkWordCount.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/JavaStatusTracke
rDemo.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/JavaWordCount.ja
va
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaPolynomia
lExpansionExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaLogisticR
egressionSummaryExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaLinearReg
ressionWithElasticNetExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaGradientB
oostedTreeClassifierExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaVectorSiz
eHintExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaFPGrowthE
xample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaRandomFor
estRegressorExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaStopWords
RemoverExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaBucketedR
andomProjectionLSHExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaModelSele
ctionViaTrainValidationSplitExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaChiSqSele
ctorExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaOneHotEnc
oderExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaPrefixSpa
nExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaStringInd
exerExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaGaussianM
ixtureExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaMulticlas
sLogisticRegressionWithElasticNetExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaVectorSli
cerExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaLogisticR
egressionWithElasticNetExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaBinarizer
Example.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaPipelineE
xample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaRandomFor
estClassifierExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaChiSquare

testExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaStandardScalerExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaModelSelectionViaCrossValidationExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaCountVectorizerExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaElementwiseProductExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaFeatureHasherExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaMinMaxScalerExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaInteractionExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaRFormulaExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaMaxAbsScalerExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaSummarizerExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaIndexToStringExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaRobustScalerExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaIsotonicRegressionExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaImputerExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaTokenizerExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaLDAExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaSQLTransformerExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaMultilayerPerceptronClassifierExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaEstimatorTransformerParamExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaCorrelationExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaKMeansExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaDocument.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaMinHashLSHExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaFMClassifierExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaPowerIterationClusteringExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaNGramExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaNormalizeExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaVectorAssemblerExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaALSExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaGradientBoostedTreeRegressorExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaBucketizerExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaQuantileDiscretizerExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaLabeledDocument.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaWord2VecExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaUnivariateFeatureSelectorExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaDecisionTreeClassifierExample.java

reelClassificationExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaGeneralizedLinearRegressionExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaPCAExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaAFTSurvivalRegressionExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaVarianceThresholdSelectorExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaOneVsRestExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaDecisionTreeRegressionExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaLinearSVCExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaNaiveBayesExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaFMRegressorExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaVectorIndexerExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaTfIdfExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaDCTExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/ml/JavaBisectingKMeansExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/JavaLogQuery.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/sql/
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/sql/streaming/
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/sql/streaming/JavaStructuredNetworkWordCountWindowed.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/sql/streaming/JavaStructuredKerberizedKafkaWordCount.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/sql/streaming/JavaStructuredSessionization.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/sql/streaming/JavaStructuredNetworkWordCount.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/sql/streaming/JavaStructuredKafkaWordCount.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/sql/streaming/JavaStructuredComplexSessionization.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/sql/JavaSQLDataSourceExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/sql/JavaUserDefinedScalar.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/sql/hive/
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/sql/hive/JavaSparkHiveExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/sql/JavaUserDefinedUntypedAggregation.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/sql/JavaUserDefinedTypedAggregation.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/sql/JavaSparkSQLExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/JavaPageRank.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaSVMWithSGDExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaGradientBoostingClassificationExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaRandomForestClassificationExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaLatentDirichletAllocationExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaALS.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaStreamingTestExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaHypothesisTestingExample.java

existsExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaChiSqS
electorExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaPrefix
SpanExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaGaussi
anMixtureExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaMultic
lassClassificationMetricsExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaCorrel
ationsExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaAssoci
ationRulesExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaElemen
twiseProductExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaBinary
ClassificationMetricsExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaIsoton
icRegressionExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaRankin
gMetricsExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaStrati
fiedSamplingExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaSummar
yStatisticsExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaLogist
icRegressionWithLBFGSEExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaKMeans
Example.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaRecomm
endationExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaLBFGSE
Example.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaPowerI
terationClusteringExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaSVDExa
mple.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaGradie
ntBoostingRegressionExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaSimple
FPGrowth.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaRandom
ForestRegressionExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaDecisi
onTreeClassificationExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaPCAExa
mple.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaKernel
DensityEstimationExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaDecisi
onTreeRegressionExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaNaiveB
ayesExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaHypoth
esisTestingKolmogorovSmirnovTestExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaMultiL
abelClassificationMetricsExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/mllib/JavaBisect
ingKMeansExample.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/JavaTC.java
spark-3.5.1-bin-hadoop3/examples/src/main/java/org/apache/spark/examples/JavaSparkPi.java
spark-3.5.1-bin-hadoop3/examples/src/main/resources/
spark-3.5.1-bin-hadoop3/examples/src/main/resources/dir1/
spark-3.5.1-bin-hadoop3/examples/src/main/resources/dir1/file1.parquet
spark-3.5.1-bin-hadoop3/examples/src/main/resources/dir1/file3.json
spark-3.5.1-bin-hadoop3/examples/src/main/resources/dir1/dir2/
spark-3.5.1-bin-hadoop3/examples/src/main/resources/dir1/dir2/file2.parquet
spark-3.5.1-bin-hadoop3/examples/src/main/resources/users.avro
spark-3.5.1-bin-hadoop3/examples/src/main/resources/users.parquet
spark-3.5.1-bin-hadoop3/examples/src/main/resources/META-INF/
spark-3.5.1-bin-hadoop3/examples/src/main/resources/META-INF/services/
spark-3.5.1-bin-hadoop3/examples/src/main/resources/META-INF/services/org.apache.spark.sq
l.CombinatorialPartitioningDriver

1. SparkSessionExtensionsProvider
spark-3.5.1-bin-hadoop3/examples/src/main/resources/META-INF/services/org.apache.spark.sql.jdbc.JdbcConnectionProvider
spark-3.5.1-bin-hadoop3/examples/src/main/resources/people.txt
spark-3.5.1-bin-hadoop3/examples/src/main/resources/employees.json
spark-3.5.1-bin-hadoop3/examples/src/main/resources/kv1.txt
spark-3.5.1-bin-hadoop3/examples/src/main/resources/user.avsc
spark-3.5.1-bin-hadoop3/examples/src/main/resources/users.orc
spark-3.5.1-bin-hadoop3/examples/src/main/resources/people.json
spark-3.5.1-bin-hadoop3/examples/src/main/resources/full_user.avsc
spark-3.5.1-bin-hadoop3/examples/src/main/resources/people.csv
spark-3.5.1-bin-hadoop3/examples/src/main/python/
spark-3.5.1-bin-hadoop3/examples/src/main/python/streaming/
spark-3.5.1-bin-hadoop3/examples/src/main/python/streaming/hdfs_wordcount.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/streaming/sql_network_wordcount.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/streaming/network_wordcount.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/streaming/recoverable_network_wordcount.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/streaming/stateful_network_wordcount.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/streaming/__init__.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/streaming/network_wordjoinsentiments.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/streaming/queue_stream.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/avro_inputformat.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/transitive_closure.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/stopwords_remover_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/pipeline_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/vector_assembler_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/__init__.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/cross_validator.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/logistic_regression_with_elastic_net.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/tf_idf_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/summarizer_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/string_indexer_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/decision_tree_regression_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/sql_transformer.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/interaction_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/count_vectorizer_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/dct_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/power_iteration_clustering_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/quantile_discretizer_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/bucketizer_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/rformula_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/gradient_boosted_tree_regressor_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/isotonic_regression_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/tokenizer_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/one_vs_rest_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/lda_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/chisq_selector_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/feature_hasher_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/estimator_transformer_param_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/univariate_feature_selector_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/imputer_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/vector_slicer_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/chi_square_test_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/decision_tree_classification_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/min_max_scaler_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/gradient_boosted_tree_classifier_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/prefixspan_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/standard_scaler_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/aft_survival_regression.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/bisecting_k_means_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/vector_indexer_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/robust_scaler_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/vector_size_hint_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/n_gram_example.py

spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/ais_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/binarizer_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/variance_threshold_selector_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/fm_regressor_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/kmeans_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/normalizer_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/dataframe_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/multiclass_logistic_regression_with_elastic_net.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/max_abs_scaler_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/elementwise_product_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/linearsvc.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/random_forest_classifier_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/correlation_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/multilayer_perceptron_classification.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/naive_bayes_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/fm_classifier_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/logistic_regression_summary_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/index_to_string_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/onehot_encoder_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/polynomial_expansion_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/train_validation_split.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/gaussian_mixture_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/min_hash_lsh_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/pca_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/fpgrowth_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/linear_regression_with_elastic_net.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/random_forest_regressor_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/bucketed_random_projection_lsh_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/word2vec_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/ml/generalized_linear_regression_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/sql/
spark-3.5.1-bin-hadoop3/examples/src/main/python/sql/datasource.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/sql/streaming/
spark-3.5.1-bin-hadoop3/examples/src/main/python/sql/streaming/__init__.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/sql/streaming/structured_network_wordcount_session_window.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/sql/streaming/structured_network_wordcount_windowed.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/sql/streaming/structured_network_wordcount.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/sql/streaming/structured_sessionization.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/sql/streaming/structured_kafka_wordcount.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/sql/arrow.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/sql/udtf.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/sql/basic.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/sql/hive.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/sql/__init__.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/wordcount.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/pagerank.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/kmeans.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/tf_idf_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/kernel_density_estimation_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/decision_tree_regression_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/random_forest_regression_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/random_forest_classification_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/sampled_rdds.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/recommendation_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/power_iteration_clustering_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/linear_regression_with_elastic_net_example.py

spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/linear_regression_with_sgd_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/latent_dirichlet_allocation_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/isotonic_regression_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/correlations_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/logistic_regression_with_lbfgs_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/gradient_boosting_regression_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/ranking_metrics_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/binary_classification_metrics_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/hypothesis_testing_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/regression_metrics_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/decision_tree_classification_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/random_rdd_generation.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/hypothesis_testing_kolmogorov_smirnov_test_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/multi_label_metrics_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/streaming_linear_regression_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/summary_statistics_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/standard_scaler_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/bisecting_k_means_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/stratified_sampling_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/kmeans.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/word2vec.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/gaussian_mixture_model.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/normalizer_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/svd_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/pca_rowmatrix_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/elementwise_product_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/k_means_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/naive_bayes_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/multi_class_metrics_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/gradient_boosting_classification_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/svm_with_sgd_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/__init__.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/streaming_k_means_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/gaussian_mixture_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/correlations.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/logistic_regression.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/fpgrowth_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/mllib/word2vec_example.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/sort.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/pi.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/als.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/__init__.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/status_api_demo.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/logistic_regression.py
spark-3.5.1-bin-hadoop3/examples/src/main/python/parquet_inputformat.py
spark-3.5.1-bin-hadoop3/NOTICE
spark-3.5.1-bin-hadoop3/conf/
spark-3.5.1-bin-hadoop3/conf/log4j2.properties.template
spark-3.5.1-bin-hadoop3/conf/workers.template
spark-3.5.1-bin-hadoop3/conf/spark-env.sh.template
spark-3.5.1-bin-hadoop3/conf/metrics.properties.template
spark-3.5.1-bin-hadoop3/conf/spark-defaults.conf.template
spark-3.5.1-bin-hadoop3/conf/fairscheduler.xml.template
spark-3.5.1-bin-hadoop3/bin/
spark-3.5.1-bin-hadoop3/bin/run-example
spark-3.5.1-bin-hadoop3/bin/spark-shell.cmd
spark-3.5.1-bin-hadoop3/bin/spark-class
spark-3.5.1-bin-hadoop3/bin/sparkR
spark-3.5.1-bin-hadoop3/bin/beeline
spark-3.5.1-bin-hadoop3/bin/spark-shell2.cmd
spark-3.5.1-bin-hadoop3/bin/find-spark-home
spark-3.5.1-bin-hadoop3/bin/pyspark.cmd
spark-3.5.1-bin-hadoop3/bin/spark-submit2.cmd
spark-3.5.1-bin-hadoop3/bin/spark-submit.cmd

spark-3.5.1-bin-hadoop3/bin/pysparkz.cmd
spark-3.5.1-bin-hadoop3/bin/spark-connect-shell
spark-3.5.1-bin-hadoop3/bin/docker-image-tool.sh
spark-3.5.1-bin-hadoop3/bin/load-spark-env.cmd
spark-3.5.1-bin-hadoop3/bin/spark-sql.cmd
spark-3.5.1-bin-hadoop3/bin/find-spark-home.cmd
spark-3.5.1-bin-hadoop3/bin/beeline.cmd
spark-3.5.1-bin-hadoop3/bin/spark-class.cmd
spark-3.5.1-bin-hadoop3/bin/sparkR2.cmd
spark-3.5.1-bin-hadoop3/bin/spark-sql2.cmd
spark-3.5.1-bin-hadoop3/bin/spark-sql
spark-3.5.1-bin-hadoop3/bin/sparkR.cmd
spark-3.5.1-bin-hadoop3/bin/spark-submit
spark-3.5.1-bin-hadoop3/bin/spark-shell
spark-3.5.1-bin-hadoop3/bin/spark-submit.cmd
spark-3.5.1-bin-hadoop3/bin/pyspark
spark-3.5.1-bin-hadoop3/bin/run-example.cmd
spark-3.5.1-bin-hadoop3/bin/load-spark-env.sh
spark-3.5.1-bin-hadoop3/bin/spark-class2.cmd
spark-3.5.1-bin-hadoop3/kubernetes/
spark-3.5.1-bin-hadoop3/kubernetes/tests/
spark-3.5.1-bin-hadoop3/kubernetes/tests/decommissioning.py
spark-3.5.1-bin-hadoop3/kubernetes/tests/autoscale.py
spark-3.5.1-bin-hadoop3/kubernetes/tests/python_executable_check.py
spark-3.5.1-bin-hadoop3/kubernetes/tests/worker_memory_check.py
spark-3.5.1-bin-hadoop3/kubernetes/tests/py_container_checks.py
spark-3.5.1-bin-hadoop3/kubernetes/tests/pyfiles.py
spark-3.5.1-bin-hadoop3/kubernetes/tests/decommissioning_cleanup.py
spark-3.5.1-bin-hadoop3/kubernetes/dockerfiles/
spark-3.5.1-bin-hadoop3/kubernetes/dockerfiles/spark/
spark-3.5.1-bin-hadoop3/kubernetes/dockerfiles/spark/decom.sh
spark-3.5.1-bin-hadoop3/kubernetes/dockerfiles/spark/Dockerfile
spark-3.5.1-bin-hadoop3/kubernetes/dockerfiles/spark/entrypoint.sh
spark-3.5.1-bin-hadoop3/kubernetes/dockerfiles/spark/bindings/
spark-3.5.1-bin-hadoop3/kubernetes/dockerfiles/spark/bindings/python/
spark-3.5.1-bin-hadoop3/kubernetes/dockerfiles/spark/bindings/python/Dockerfile
spark-3.5.1-bin-hadoop3/kubernetes/dockerfiles/spark/bindings/R/
spark-3.5.1-bin-hadoop3/kubernetes/dockerfiles/spark/bindings/R/Dockerfile
spark-3.5.1-bin-hadoop3/README.md
spark-3.5.1-bin-hadoop3/LICENSE
spark-3.5.1-bin-hadoop3/yarn/
spark-3.5.1-bin-hadoop3/yarn/spark-3.5.1-yarn-shuffle.jar
spark-3.5.1-bin-hadoop3/python/
spark-3.5.1-bin-hadoop3/python/setup.py
spark-3.5.1-bin-hadoop3/python/MANIFEST.in
spark-3.5.1-bin-hadoop3/python/test_coverage/
spark-3.5.1-bin-hadoop3/python/test_coverage/sitecustomize.py
spark-3.5.1-bin-hadoop3/python/test_coverage/conf/
spark-3.5.1-bin-hadoop3/python/test_coverage/conf/spark-defaults.conf
spark-3.5.1-bin-hadoop3/python/test_coverage/coverage_daemon.py
spark-3.5.1-bin-hadoop3/python/test_support/
spark-3.5.1-bin-hadoop3/python/test_support/hello/
spark-3.5.1-bin-hadoop3/python/test_support/hello/hello.txt
spark-3.5.1-bin-hadoop3/python/test_support/hello/sub_hello/
spark-3.5.1-bin-hadoop3/python/test_support/hello/sub_hello/sub_hello.txt
spark-3.5.1-bin-hadoop3/python/test_support/userlib-0.1.zip
spark-3.5.1-bin-hadoop3/python/test_support/test_pytorch_training_file.py
spark-3.5.1-bin-hadoop3/python/test_support/sql/
spark-3.5.1-bin-hadoop3/python/test_support/sql/people_array.json
spark-3.5.1-bin-hadoop3/python/test_support/sql/streaming/
spark-3.5.1-bin-hadoop3/python/test_support/sql/streaming/text-test.txt
spark-3.5.1-bin-hadoop3/python/test_support/sql/orc_partitioned/
spark-3.5.1-bin-hadoop3/python/test_support/sql/orc_partitioned/_SUCCESS
spark-3.5.1-bin-hadoop3/python/test_support/sql/orc_partitioned/b=0/
spark-3.5.1-bin-hadoop3/python/test_support/sql/orc_partitioned/b=0/c=0/
spark-3.5.1-bin-hadoop3/python/test_support/sql/orc_partitioned/b=0/c=0/.part-r-00000-829
af031-b970-49d6-ad39-30460a0be2c8.orc.crc
spark-3.5.1-bin-hadoop3/python/test_support/sql/orc_partitioned/b=0/c=0/part-r-00000-829a
f031-b970-49d6-ad39-30460a0be2c8.orc
spark-3.5.1-bin-hadoop3/python/test_support/sql/orc_partitioned/b=1/
spark-3.5.1-bin-hadoop3/python/test_support/sql/orc_partitioned/b=1/c=1/
spark-3.5.1-bin-hadoop3/python/test_support/sql/orc_partitioned/b=1/c=1/.part-r-00000-829
-5031-b970-49d6-ad39-30460a0be2c8.orc.crc

al031-b970-49d6-ad39-30460a0be2c8.orc.crc
spark-3.5.1-bin-hadoop3/python/test_support/sql/orc_partitioned/b=1/c=1/part-r-00000-829a
f031-b970-49d6-ad39-30460a0be2c8.orc
spark-3.5.1-bin-hadoop3/python/test_support/sql/text-test.txt
spark-3.5.1-bin-hadoop3/python/test_support/sql/people_array_utf16le.json
spark-3.5.1-bin-hadoop3/python/test_support/sql/people1.json
spark-3.5.1-bin-hadoop3/python/test_support/sql/ages_newlines.csv
spark-3.5.1-bin-hadoop3/python/test_support/sql/people.json
spark-3.5.1-bin-hadoop3/python/test_support/SimpleHTTPServer.py
spark-3.5.1-bin-hadoop3/python/test_support/userlibrary.py
spark-3.5.1-bin-hadoop3/python/pyspark.egg-info/
spark-3.5.1-bin-hadoop3/python/pyspark.egg-info/SOURCES.txt
spark-3.5.1-bin-hadoop3/python/pyspark.egg-info/top_level.txt
spark-3.5.1-bin-hadoop3/python/pyspark.egg-info/PKG-INFO
spark-3.5.1-bin-hadoop3/python/pyspark.egg-info/requires.txt
spark-3.5.1-bin-hadoop3/python/pyspark.egg-info/dependency_links.txt
spark-3.5.1-bin-hadoop3/python/run-tests.py
spark-3.5.1-bin-hadoop3/python/setup.cfg
spark-3.5.1-bin-hadoop3/python/run-tests
spark-3.5.1-bin-hadoop3/python/lib/
spark-3.5.1-bin-hadoop3/python/lib/py4j-0.10.9.7-src.zip
spark-3.5.1-bin-hadoop3/python/lib/PY4J_LICENSE.txt
spark-3.5.1-bin-hadoop3/python/lib/pyspark.zip
spark-3.5.1-bin-hadoop3/python/.coveragerc
spark-3.5.1-bin-hadoop3/python/docs/
spark-3.5.1-bin-hadoop3/python/docs/make.bat
spark-3.5.1-bin-hadoop3/python/docs/source/
spark-3.5.1-bin-hadoop3/python/docs/source/getting_started/
spark-3.5.1-bin-hadoop3/python/docs/source/getting_started/quickstart_connect.ipynb
spark-3.5.1-bin-hadoop3/python/docs/source/getting_started/testing_pyspark.ipynb
spark-3.5.1-bin-hadoop3/python/docs/source/getting_started/install.rst
spark-3.5.1-bin-hadoop3/python/docs/source/getting_started/quickstart_ps.ipynb
spark-3.5.1-bin-hadoop3/python/docs/source/getting_started/quickstart_df.ipynb
spark-3.5.1-bin-hadoop3/python/docs/source/getting_started/index.rst
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/arrow_pandas.rst
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/pandas_on_spark/
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/pandas_on_spark/types.rst
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/pandas_on_spark/from_to_dbms.rst
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/pandas_on_spark/best_practices.rst
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/pandas_on_spark/typehints.rst
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/pandas_on_spark/faq.rst
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/pandas_on_spark/options.rst
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/pandas_on_spark/pandas_pyspark.rst
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/pandas_on_spark/index.rst
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/pandas_on_spark/transform_apply.rst
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/sql/
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/sql/arrow_pandas.rst
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/sql/python_udtf.rst
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/sql/index.rst
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/python_packaging.rst
spark-3.5.1-bin-hadoop3/python/docs/source/user_guide/index.rst
spark-3.5.1-bin-hadoop3/python/docs/source/migration_guide/
spark-3.5.1-bin-hadoop3/python/docs/source/migration_guide/pyspark_upgrade.rst
spark-3.5.1-bin-hadoop3/python/docs/source/migration_guide/koalas_to_pyspark.rst
spark-3.5.1-bin-hadoop3/python/docs/source/migration_guide/index.rst
spark-3.5.1-bin-hadoop3/python/docs/source/conf.py
spark-3.5.1-bin-hadoop3/python/docs/source/_templates/
spark-3.5.1-bin-hadoop3/python/docs/source/_templates/version-switcher.html
spark-3.5.1-bin-hadoop3/python/docs/source/_templates/autosummary/
spark-3.5.1-bin-hadoop3/python/docs/source/_templates/autosummary/class.rst
spark-3.5.1-bin-hadoop3/python/docs/source/_templates/autosummary/class_with_docs.rst
spark-3.5.1-bin-hadoop3/python/docs/source/development/
spark-3.5.1-bin-hadoop3/python/docs/source/development/debugging.rst
spark-3.5.1-bin-hadoop3/python/docs/source/development/setting_ide.rst
spark-3.5.1-bin-hadoop3/python/docs/source/development/errors.rst
spark-3.5.1-bin-hadoop3/python/docs/source/development/testing.rst
spark-3.5.1-bin-hadoop3/python/docs/source/development/index.rst
spark-3.5.1-bin-hadoop3/python/docs/source/development/contributing.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.mllib.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.ss/
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.ml.rst

spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.ss/query_management.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.ss/core_classes.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.ss/io.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.ss/index.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.errors.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/grouping.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/udtf.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/udf.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/observation.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/core_classes.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/io.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/dataframe.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/row.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/catalog.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/avro.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/protobuf.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/configuration.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/spark_session.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/window.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/column.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/functions.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/index.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.sql/data_types.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.streaming.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.resource.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.testing.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.pandas/
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.pandas/ml.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.pandas/general_functions.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.pandas/indexing.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.pandas/extensions.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.pandas/io.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.pandas/series.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.pandas/frame.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.pandas/groupby.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.pandas/resampling.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.pandas/window.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.pandas/index.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/index.rst
spark-3.5.1-bin-hadoop3/python/docs/source/reference/pyspark.ml.rst
spark-3.5.1-bin-hadoop3/python/docs/source/index.rst
spark-3.5.1-bin-hadoop3/python/docs/source/_static/
spark-3.5.1-bin-hadoop3/python/docs/source/_static/css/
spark-3.5.1-bin-hadoop3/python/docs/source/_static/css/pyspark.css
spark-3.5.1-bin-hadoop3/python/docs/source/_static/versions.json
spark-3.5.1-bin-hadoop3/python/docs/Makefile
spark-3.5.1-bin-hadoop3/python/docs/make2.bat
spark-3.5.1-bin-hadoop3/python/.gitignore
spark-3.5.1-bin-hadoop3/python/dist/
spark-3.5.1-bin-hadoop3/python/mypy.ini
spark-3.5.1-bin-hadoop3/python/README.md
spark-3.5.1-bin-hadoop3/python/run-tests-with-coverage
spark-3.5.1-bin-hadoop3/python/pyspark/
spark-3.5.1-bin-hadoop3/python/pyspark/resultiterable.py
spark-3.5.1-bin-hadoop3/python/pyspark/status.py
spark-3.5.1-bin-hadoop3/python/pyspark/statcounter.py
spark-3.5.1-bin-hadoop3/python/pyspark/rdd.py
spark-3.5.1-bin-hadoop3/python/pyspark/streaming/
spark-3.5.1-bin-hadoop3/python/pyspark/streaming/kinesis.py
spark-3.5.1-bin-hadoop3/python/pyspark/streaming/context.py
spark-3.5.1-bin-hadoop3/python/pyspark/streaming/util.py
spark-3.5.1-bin-hadoop3/python/pyspark/streaming/tests/
spark-3.5.1-bin-hadoop3/python/pyspark/streaming/tests/test_context.py
spark-3.5.1-bin-hadoop3/python/pyspark/streaming/tests/test_listener.py
spark-3.5.1-bin-hadoop3/python/pyspark/streaming/tests/test_dstream.py
spark-3.5.1-bin-hadoop3/python/pyspark/streaming/tests/test_kinesis.py
spark-3.5.1-bin-hadoop3/python/pyspark/streaming/tests/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/streaming/listener.py
spark-3.5.1-bin-hadoop3/python/pyspark/streaming/dstream.py
spark-3.5.1-bin-hadoop3/python/pyspark/streaming/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/streaming/...

spark-3.5.1-bin-hadoop3/python/pyspark/resource/
spark-3.5.1-bin-hadoop3/python/pyspark/resource/requests.py
spark-3.5.1-bin-hadoop3/python/pyspark/resource/profile.py
spark-3.5.1-bin-hadoop3/python/pyspark/resource/tests/
spark-3.5.1-bin-hadoop3/python/pyspark/resource/tests/test_resources.py
spark-3.5.1-bin-hadoop3/python/pyspark/resource/tests/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/resource/information.py
spark-3.5.1-bin-hadoop3/python/pyspark/resource/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/conf.py
spark-3.5.1-bin-hadoop3/python/pyspark/join.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/
spark-3.5.1-bin-hadoop3/python/pyspark/ml/dl_util.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/pipeline.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/recommendation.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/model_cache.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/connect/
spark-3.5.1-bin-hadoop3/python/pyspark/ml/connect/pipeline.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/connect/functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/connect/util.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/connect/tuning.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/connect/summarizer.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/connect/evaluation.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/connect/base.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/connect/classification.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/connect/feature.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/connect/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/connect/io_utils.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/regression.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/wrapper.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/common.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/util.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/clustering.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/param/
spark-3.5.1-bin-hadoop3/python/pyspark/ml/param/_shared_params_code_gen.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/param/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/param/shared.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/_typing.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/test_base.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/test_training_summary.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/connect/
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/connect/test_connect_classification.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/connect/test_legacy_mode_classification.p
y
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/connect/test_connect_tuning.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/connect/test_legacy_mode_tuning.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/connect/test_connect_summarizer.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/connect/test_connect_evaluation.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/connect/test_parity_torch_distributor.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/connect/test_legacy_mode_evaluation.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/connect/test_legacy_mode_pipeline.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/connect/test_legacy_mode_feature.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/connect/test_legacy_mode_summarizer.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/connect/test_connect_function.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/connect/test_connect_feature.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/connect/test_connect_pipeline.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/connect/test_parity_torch_data_loader.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/test_persistence.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/test_pipeline.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/test_dl_util.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/test_functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/test_algorithms.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/test_image.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/typing/
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/typing/test_evaluation.yml
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/typing/test_param.yml
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/typing/test_readable.yml
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/typing/test_clustering.yml
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/typing/test_regression.yml
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/typing/test_feature.yml
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/typing/test_classification.yml
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/typing/test_feature.yml

spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/test_feature.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/test_util.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/tuning/
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/tuning/test_tvs_io_nested.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/tuning/test_cv_io_basic.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/tuning/test_tuning.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/tuning/test_cv_io_nested.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/tuning/test_tvs_io_basic.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/tuning/test_tvs_io_pipeline.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/tuning/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/tuning/test_cv_io_pipeline.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/test_linalg.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/test_evaluation.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/test_stat.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/test_param.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/test_wrapper.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tests/test_model_cache.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tuning.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/linalg/
spark-3.5.1-bin-hadoop3/python/pyspark/ml/linalg/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/image.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/evaluation.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/torch/
spark-3.5.1-bin-hadoop3/python/pyspark/ml/torch/tests/
spark-3.5.1-bin-hadoop3/python/pyspark/ml/torch/tests/test_data_loader.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/torch/tests/test_log_communication.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/torch/tests/test_distributor.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/torch/tests/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/torch/data.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/torch/distributor.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/torch/torch_run_process_wrapper.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/torch/log_communication.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/torch/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/base.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/classification.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/deepspeed/
spark-3.5.1-bin-hadoop3/python/pyspark/ml/deepspeed/tests/
spark-3.5.1-bin-hadoop3/python/pyspark/ml/deepspeed/tests/test_deepspeed_distributor.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/deepspeed/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/deepspeed/deepspeed_distributor.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/stat.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/feature.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/fpm.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/ml/tree.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/sql_formatter.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/expressions_pb2.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/commands_pb2.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/example_plugins_pb2.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/types_pb2.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/base_pb2.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/base_pb2.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/example_plugins_pb2.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/commands_pb2.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/common_pb2.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/relations_pb2.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/relations_pb2.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/base_pb2_grpc.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/expressions_pb2.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/common_pb2.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/catalog_pb2.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/types_pb2.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/proto/catalog_pb2.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/column.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/streaming/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/streaming/query.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/streaming/readwriter.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/streaming/readwriter.py

spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/streaming/worker/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/streaming/worker/listener_worker.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/streaming/worker/foreach_batch_worker.
py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/streaming/worker/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/streaming/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/conf.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/udf.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/plan.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/client/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/client/artifact.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/client/reattach.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/client/core.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/client/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/conversion.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/session.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/group.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/udtf.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/_typing.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/avro/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/avro/functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/avro/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/protobuf/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/protobuf/functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/protobuf/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/window.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/catalog.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/utils.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/readwriter.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/expressions.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/dataframe.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/types.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/connect/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/column.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/streaming/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/streaming/query.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/streaming/state.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/streaming/listener.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/streaming/readwriter.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/streaming/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/conf.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/context.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/observation.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/udf.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/_typing.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/streaming/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/streaming/test_parity_streaming.
py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/streaming/test_parity_foreach_ba
tch.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/streaming/test_parity_foreach.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/streaming/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/streaming/test_parity_listener.p
y
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_pandas_grouped_map_w
ith_state.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_conf.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_datasources.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_arrow_map.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_utils.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_catalog.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_session.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_pandas_udf_grouped_a
gg.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/client/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/client/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/client/test_client.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/client/test_artifact.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_pandas_udf_grouped_a

spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_serde.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_connect_basic.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_connect_plan.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_types.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_arrow.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_pandas_udf.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_arrow_python_udf.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_readwriter.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_pandas_udf_scalar.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_udf.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_pandas_grouped_map.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_connect_column.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_pandas_cogrouped_map.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_errors.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_column.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_pandas_udf_window.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_connect_function.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_udtf.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_dataframe.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_group.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/connect/test_parity_pandas_map.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_readwriter.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_serde.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_arrow_map.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_pandas_sqlmetrics.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_udtf.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/streaming/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/streaming/test_streaming_listener.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/streaming/test_streaming_foreach_batch.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/streaming/test_streaming.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/streaming/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/streaming/test_streaming_foreach.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_group.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_context.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_datasources.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_catalog.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_utils.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_errors.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_session.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_arrow.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_dataframe.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/typing/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/typing/test_column.yml
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/typing/test_dataframe.yml
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/typing/test_session.yml
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/typing/test_functions.yml
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/typing/test_udf.yml
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/typing/test_readwriter.yml
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/pandas/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/pandas/test_pandas_cogrouped_map.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/pandas/test_pandas_grouped_map_with_state.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/pandas/test_pandas_udf_grouped_agg.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/pandas/test_pandas_grouped_map.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/pandas/test_pandas_udf_scalar.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/pandas/test_pandas_udf_typehints.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/pandas/test_pandas_udf_typehints_with_future_annotations.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/pandas/test_pandas_udf.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/pandas/test_pandas_udf_window.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/pandas/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/pandas/test_pandas_map.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_types.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_arrow_python_udf.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_column.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_udf.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_udf_map_from_arrow.py

spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_udf_profiler.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/tests/test_conf.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/session.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/group.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/udtf.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/group_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/map_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/conversion.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/typehints.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/_typing/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/_typing/protocols/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/_typing/protocols/series.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/_typing/protocols/frame.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/_typing/protocols/__init__.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/_typing/__init__.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/functions.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/serializers.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/utils.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/types.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/pandas/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/avro/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/avro/functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/avro/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/protobuf/
spark-3.5.1-bin-hadoop3/python/pyspark/sql/protobuf/functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/protobuf/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/window.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/catalog.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/utils.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/readwriter.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/dataframe.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/types.py
spark-3.5.1-bin-hadoop3/python/pyspark/sql/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/context.py
spark-3.5.1-bin-hadoop3/python/pyspark/util.py
spark-3.5.1-bin-hadoop3/python/pyspark/accumulators.py
spark-3.5.1-bin-hadoop3/python/pyspark/rddsampler.py
spark-3.5.1-bin-hadoop3/python/pyspark/_typing.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/py.typed
spark-3.5.1-bin-hadoop3/python/pyspark/tests/
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_rddbarrier.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_context.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_profiler.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_broadcast.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_pin_thread.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_rdd.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_readwrite.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/typing/
spark-3.5.1-bin-hadoop3/python/pyspark/tests/typing/test_resultiterable.yml
spark-3.5.1-bin-hadoop3/python/pyspark/tests/typing/test_context.yml
spark-3.5.1-bin-hadoop3/python/pyspark/tests/typing/test_rdd.yml
spark-3.5.1-bin-hadoop3/python/pyspark/tests/typing/test_core.yml
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_rddsampler.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_util.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_appsubmit.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_daemon.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_shuffle.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_taskcontext.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_serializers.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_worker.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_memory_profiler.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_install_spark.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_conf.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_statcounter.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_stage_sched.py
spark-3.5.1-bin-hadoop3/python/pyspark/tests/test_join.py
spark-3.5.1-bin-hadoop3/python/pyspark/storagelevel.py
spark-3.5.1-bin-hadoop3/python/pyspark/profiler.py
spark-3.5.1-bin-hadoop3/python/pyspark/...

spark-3.5.1-bin-hadoop3/python/pyspark/version.py
spark-3.5.1-bin-hadoop3/python/pyspark/instrumentation_utils.py
spark-3.5.1-bin-hadoop3/python/pyspark/worker_util.py
spark-3.5.1-bin-hadoop3/python/pyspark/worker.py
spark-3.5.1-bin-hadoop3/python/pyspark/cloudpickle/
spark-3.5.1-bin-hadoop3/python/pyspark/cloudpickle/compat.py
spark-3.5.1-bin-hadoop3/python/pyspark/cloudpickle/cloudpickle_fast.py
spark-3.5.1-bin-hadoop3/python/pyspark/cloudpickle/cloudpickle.py
spark-3.5.1-bin-hadoop3/python/pyspark/cloudpickle/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/testing/
spark-3.5.1-bin-hadoop3/python/pyspark/testing/pandasutils.py
spark-3.5.1-bin-hadoop3/python/pyspark/testing/mlutils.py
spark-3.5.1-bin-hadoop3/python/pyspark/testing/sqlutils.py
spark-3.5.1-bin-hadoop3/python/pyspark/testing/streamingutils.py
spark-3.5.1-bin-hadoop3/python/pyspark/testing/connectutils.py
spark-3.5.1-bin-hadoop3/python/pyspark/testing/utils.py
spark-3.5.1-bin-hadoop3/python/pyspark/testing/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/testing/mllibutils.py
spark-3.5.1-bin-hadoop3/python/pyspark/__pycache__/
spark-3.5.1-bin-hadoop3/python/pyspark/__pycache__/install.cpython-38.pyc
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/frame.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/sql_formatter.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/categorical.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/namespace.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/accessors.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/usage_logging/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/usage_logging/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/usage_logging/usage_logger.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/correlation.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/indexing.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/groupby.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/resample.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/plot/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/plot/plotly.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/plot/core.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/plot/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/plot/matplotlib.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/supported_api_gen.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/data_type_ops/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/data_type_ops/null_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/data_type_ops/num_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/data_type_ops/udt_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/data_type_ops/string_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/data_type_ops/complex_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/data_type_ops/date_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/data_type_ops/categorical_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/data_type_ops/timedelta_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/data_type_ops/datetime_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/data_type_ops/base.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/data_type_ops/binary_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/data_type_ops/boolean_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/data_type_ops/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_rolling.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_sql.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_dataframe_spark_i
o.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_ops_on_diff_frame
s_groupby.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/computation/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/computation/test_parity_apply
_func.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/computation/test_parity_compu
te.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/computation/test_parity_any_a
ll.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/computation/test_parity_melt.
py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/computation/test_parity_pivot
.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/computation/test_parity_row_w

spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/computation/test_parity_cov.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/computation/test_parity_describe.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/computation/test_parity_corrwith.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/computation/test_parity_combine.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/computation/test_parity_cumulative.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/computation/test_parity_eval.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/computation/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/computation/test_parity_missing_data.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/computation/test_parity_binary_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_utils.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/groupby/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/groupby/test_parity_apply_function.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/groupby/test_parity_split_apply.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/groupby/test_parity_stat.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/groupby/test_parity_index.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/groupby/test_parity_describe.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/groupby/test_parity_cumulative.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/groupby/test_parity_aggregate.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/groupby/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/groupby/test_parity_head_tail.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/groupby/test_parity_missing_data.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/groupby/test_parity_groupby.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/diff_frames_ops/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/diff_frames_ops/test_parity_index.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/diff_frames_ops/test_parity_basic_slow.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/diff_frames_ops/test_parity_setitem_frame.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/diff_frames_ops/test_parity_series.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/diff_frames_ops/test_parity_cov_corrwith.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/diff_frames_ops/test_parity_align.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/diff_frames_ops/test_parity_dot_frame.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/diff_frames_ops/test_parity_dot_series.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/diff_frames_ops/test_parity_setitem_series.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/diff_frames_ops/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/frame/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/frame/test_parity_attrs.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/frame/test_parity_conversion.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/frame/test_parity_constructor.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/frame/test_parity_reindexing.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/frame/test_parity_truncate.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/frame/test_parity_take.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/frame/test_parity_spark.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/frame/test_parity_resaping.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/frame/__init__.py

spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/frame/test_parity_time_series.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_extension.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_ops_on_diff_frame.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/io/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/io/test_parity_io.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/io/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/plot/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/plot/test_parity_frame_plot_plotly.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/plot/test_parity_series_plot_plotly.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/plot/test_parity_frame_plot_matplotlib.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/plot/test_parity_series_plot_matplotlib.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/plot/test_parity_frame_plot.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/plot/test_parity_series_plot.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/plot/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_indexops_spark.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_typedef.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_spark_functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_stats.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_dataframe_conversion.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_default_index.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/test_parity_date_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/test_parity_null_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/test_parity_string_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/test_parity_categorical_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/test_parity_base.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/test_parity_timedelta_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/test_parity_complex_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/test_parity_datetime_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/test_parity_numeric_arithmetic.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/test_parity_numeric_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/test_parity_boolean_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/test_parity_udt_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/testing_utils.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/test_parity_binary_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/data_type_ops/test_parity_numeric_reverse.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_ops_on_diff_frame_groupby_expanding.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/indexes/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/indexes/test_parity_category.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/indexes/test_parity_timedelta.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/indexes/test_parity_base.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/indexes/test_parity_reindex.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/indexes/test_parity_reindex_inplace.py

spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/indexes/test_parity_reset_index.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/indexes/test_parity_align.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/indexes/test_parity_indexing.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/indexes/test_parity_datetime.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/indexes/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/indexes/test_parity_rename.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_series_string.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_generic_functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_ops_on_diff_frames_groupby_rolling.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_series_conversion.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_numpy_compat.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/series/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/series/test_parity_stat.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/series/test_parity_compute.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/series/test_parity_sort.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/series/test_parity_conversion.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/series/test_parity_all_any.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/series/test_parity_index.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/series/test_parity_series.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/series/test_parity_cumulative.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/series/test_parity_as_type.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/series/test_parity_arg_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/series/test_parity_as_of.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/series/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/series/test_parity_missing_data.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_series_datetime.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_ewm.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_window.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_config.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_indexing.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_internal.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_reshape.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_resample.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_frame_spark.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_categorical.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_rolling.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_scalars.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_expanding.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_repr.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_csv.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/connect/test_parity_namespace.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_ops_on_diff_frames_groupby.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/computation/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/computation/test_combine.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/computation/test_pivot.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/computation/test_any_all.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/computation/test_melt.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/computation/test_apply_func.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/computation/test_eval.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/computation/test_corrwith.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/computation/test_cov.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/computation/test_cumulative.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/computation/test_missing_data.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/computation/test_describe.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/computation/test_compute.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/computation/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/computation/test_binary_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_series_string.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_typedef.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_ewm.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/groupby/

spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/groupby/test_index.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/groupby/test_apply_func.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/groupby/test_groupby.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/groupby/test_head_tail.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/groupby/test_cumulative.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/groupby/test_split_apply.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/groupby/test_missing_data.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/groupby/test_stat.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/groupby/test_describe.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/groupby/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/groupby/test_aggregate.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/diff_frames_ops/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/diff_frames_ops/test_dot_frame.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/diff_frames_ops/test_dot_series.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/diff_frames_ops/test_align.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/diff_frames_ops/test_index.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/diff_frames_ops/test_setitem_frame.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/diff_frames_ops/test_series.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/diff_frames_ops/test_cov_corrwith.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/diff_frames_ops/test_setitem_series.py
Y
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/diff_frames_ops/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/diff_frames_ops/test_basic_slow.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_dataframe_conversion.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/frame/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/frame/test_time_series.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/frame/test_take.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/frame/test_constructor.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/frame/test_reshaping.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/frame/test_attrs.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/frame/test_reindexing.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/frame/test_truncate.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/frame/test_conversion.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/frame/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/frame/test_spark.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_numpy_compat.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_scalars.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_sql.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_frame_spark.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/io/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/io/test_io.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/io/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_utils.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_extension.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/plot/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/plot/test_series_plot.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/plot/test_frame_plot_matplotlib.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/plot/test_series_plot_plotly.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/plot/test_series_plot_matplotlib.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/plot/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/plot/test_frame_plot_plotly.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/plot/test_frame_plot.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/test_base.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/test_datetime_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/test_timedelta_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/test_num_reverse.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/test_complex_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/test_boolean_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/test_num_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/testing_utils.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/test_null_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/test_num_arithmetic.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/test_string_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/test_categorical_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/test_binary_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/test_udt_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/data_type_ops/test_date_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_spark_functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_resample.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_ops_on_diff_frames_groupby_expan

ding.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_namespace.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/indexes/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/indexes/test_base.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/indexes/test_align.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/indexes/test_reset_index.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/indexes/test_rename.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/indexes/test_reindex.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/indexes/test_category.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/indexes/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/indexes/test_indexing.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/indexes/test_timedelta.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/indexes/test_datetime.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_expanding.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/series/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/series/test_index.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/series/test_arg_ops.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/series/test_as_type.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/series/test_series.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/series/test_cumulative.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/series/test_all_any.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/series/test_as_of.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/series/test_missing_data.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/series/test_stat.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/series/test_conversion.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/series/test_compute.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/series/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/series/test_sort.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_default_index.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_repr.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_dataframe_spark_io.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_internal.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_series_datetime.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_ops_on_diff_frames.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_generic_functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_reshape.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_csv.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_window.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_stats.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_config.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_ops_on_diff_frames_groupby_rolling.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_series_conversion.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_indexing.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_indexops_spark.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/tests/test_categorical.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/internal.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/indexes/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/indexes/timedelta.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/indexes/datetime.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/indexes/category.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/indexes/base.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/indexes/numeric.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/indexes/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/indexes/multi.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/numpy_compat.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/datetime.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/missing/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/missing/frame.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/missing/groupby.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/missing/common.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/missing/resample.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/missing/indexes.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/missing/general_functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/missing/series.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/missing/window.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/missing/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/missing/scalars.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/_typing.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/spark/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/spark/accessors.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/spark/functions.py

```
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/spark/functions.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/spark/utils.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/spark/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/series.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/base.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/window.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/utils.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/exceptions.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/mlflow.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/extensions.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/generic.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/config.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/strings.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/typedef/
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/typedef/typehints.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/typedef/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/pandas/sql_processor.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/recommendation.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/regression.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/common.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/util.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/clustering.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/_typing.pyi
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/tests/
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/tests/test_streaming_algorithms.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/tests/test_algorithms.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/tests/test_feature.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/tests/test_util.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/tests/test_linalg.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/tests/test_stat.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/tests/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/linalg/
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/linalg/distributed.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/linalg/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/evaluation.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/stat/
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/stat/distribution.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/stat/KernelDensity.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/stat/test.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/stat/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/stat/_statistics.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/classification.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/feature.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/fpm.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/tree.py
spark-3.5.1-bin-hadoop3/python/pyspark/mllib/random.py
spark-3.5.1-bin-hadoop3/python/pyspark/broadcast.py
spark-3.5.1-bin-hadoop3/python/pyspark/daemon.py
spark-3.5.1-bin-hadoop3/python/pyspark/traceback_utils.py
spark-3.5.1-bin-hadoop3/python/pyspark/serializers.py
spark-3.5.1-bin-hadoop3/python/pyspark/errors/
spark-3.5.1-bin-hadoop3/python/pyspark/errors/tests/
spark-3.5.1-bin-hadoop3/python/pyspark/errors/tests/test_errors.py
spark-3.5.1-bin-hadoop3/python/pyspark/errors/tests/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/errors/error_classes.py
spark-3.5.1-bin-hadoop3/python/pyspark/errors/utils.py
spark-3.5.1-bin-hadoop3/python/pyspark/errors/exceptions/
spark-3.5.1-bin-hadoop3/python/pyspark/errors/exceptions/connect.py
spark-3.5.1-bin-hadoop3/python/pyspark/errors/exceptions/captured.py
spark-3.5.1-bin-hadoop3/python/pyspark/errors/exceptions/base.py
spark-3.5.1-bin-hadoop3/python/pyspark/errors/exceptions/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/errors/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/shell.py
spark-3.5.1-bin-hadoop3/python/pyspark/python/
spark-3.5.1-bin-hadoop3/python/pyspark/python/pyspark/
spark-3.5.1-bin-hadoop3/python/pyspark/python/pyspark/shell.py
spark-3.5.1-bin-hadoop3/python/pyspark/taskcontext.py
spark-3.5.1-bin-hadoop3/python/pyspark/files.py
spark-3.5.1-bin-hadoop3/python/pyspark/__init__.py
spark-3.5.1-bin-hadoop3/python/pyspark/installer.py
```

```
spark-3.5.1-bin-hadoop3/python/pyspark/install.py
spark-3.5.1-bin-hadoop3/python/pyspark/_globals.py
spark-3.5.1-bin-hadoop3/python/pyspark/shuffle.py
spark-3.5.1-bin-hadoop3/python/pyspark/java_gateway.py
spark-3.5.1-bin-hadoop3/python/pyspark/find_spark_home.py
spark-3.5.1-bin-hadoop3/RELEASE
spark-3.5.1-bin-hadoop3/R/
spark-3.5.1-bin-hadoop3/R/lib/
spark-3.5.1-bin-hadoop3/R/lib/SparkR/
spark-3.5.1-bin-hadoop3/R/lib/SparkR/Meta/
spark-3.5.1-bin-hadoop3/R/lib/SparkR/Meta/nsInfo.rds
spark-3.5.1-bin-hadoop3/R/lib/SparkR/Meta/hsearch.rds
spark-3.5.1-bin-hadoop3/R/lib/SparkR/Meta/vignette.rds
spark-3.5.1-bin-hadoop3/R/lib/SparkR/Meta/Rd.rds
spark-3.5.1-bin-hadoop3/R/lib/SparkR/Meta/package.rds
spark-3.5.1-bin-hadoop3/R/lib/SparkR/Meta/links.rds
spark-3.5.1-bin-hadoop3/R/lib/SparkR/Meta/features.rds
spark-3.5.1-bin-hadoop3/R/lib/SparkR/doc/
spark-3.5.1-bin-hadoop3/R/lib/SparkR/doc/index.html
spark-3.5.1-bin-hadoop3/R/lib/SparkR/doc/sparkr-vignettes.html
spark-3.5.1-bin-hadoop3/R/lib/SparkR/doc/sparkr-vignettes.Rmd
spark-3.5.1-bin-hadoop3/R/lib/SparkR/doc/sparkr-vignettes.R
spark-3.5.1-bin-hadoop3/R/lib/SparkR/help/
spark-3.5.1-bin-hadoop3/R/lib/SparkR/help/SparkR.rdx
spark-3.5.1-bin-hadoop3/R/lib/SparkR/help/paths.rds
spark-3.5.1-bin-hadoop3/R/lib/SparkR/help/SparkR.rdb
spark-3.5.1-bin-hadoop3/R/lib/SparkR/help/AnIndex
spark-3.5.1-bin-hadoop3/R/lib/SparkR/help/aliases.rds
spark-3.5.1-bin-hadoop3/R/lib/SparkR/NAMESPACE
spark-3.5.1-bin-hadoop3/R/lib/SparkR/tests/
spark-3.5.1-bin-hadoop3/R/lib/SparkR/tests/testthat/
spark-3.5.1-bin-hadoop3/R/lib/SparkR/tests/testthat/test_basic.R
spark-3.5.1-bin-hadoop3/R/lib/SparkR/INDEX
spark-3.5.1-bin-hadoop3/R/lib/SparkR/DESCRIPTION
spark-3.5.1-bin-hadoop3/R/lib/SparkR/profile/
spark-3.5.1-bin-hadoop3/R/lib/SparkR/profile/general.R
spark-3.5.1-bin-hadoop3/R/lib/SparkR/profile/shell.R
spark-3.5.1-bin-hadoop3/R/lib/SparkR/worker/
spark-3.5.1-bin-hadoop3/R/lib/SparkR/worker/daemon.R
spark-3.5.1-bin-hadoop3/R/lib/SparkR/worker/worker.R
spark-3.5.1-bin-hadoop3/R/lib/SparkR/html/
spark-3.5.1-bin-hadoop3/R/lib/SparkR/html/00Index.html
spark-3.5.1-bin-hadoop3/R/lib/SparkR/html/R.css
spark-3.5.1-bin-hadoop3/R/lib/SparkR/R/
spark-3.5.1-bin-hadoop3/R/lib/SparkR/R/SparkR.rdx
spark-3.5.1-bin-hadoop3/R/lib/SparkR/R/SparkR.rdb
spark-3.5.1-bin-hadoop3/R/lib/SparkR/R/SparkR
spark-3.5.1-bin-hadoop3/R/lib/sparkr.zip
```

In [2]:

```
import os
os.environ["JAVA_HOME"] = "/usr/lib/jvm/java-8-openjdk-amd64"
os.environ["SPARK_HOME"] = "/content/spark-3.5.1-bin-hadoop3"
```

In [3]:

```
import findspark
findspark.init()
```

In [4]:

```
from pyspark.sql import SparkSession
spark = SparkSession.builder.master("local[*]").getOrCreate()
```

In [5]:

```
from google.colab import files
uploaded = files.upload()
```

Choose File

No file selected

Upload widget is only available when the cell has been executed in the current browser session. Please rerun this cell to enable.

Saving testItem.data.zip to testItem.data.zip
Saving trainItem.data.zip to trainItem.data.zip

In [6]:

```
uploaded = files.upload()
```

Choose File

No file selected

Upload widget is only available when the cell has been executed in the current browser session. Please rerun this cell to enable.

Saving re_u.data to re_u.data

In [7]:

```
!unzip testItem.data.zip  
!unzip trainItem.data.zip
```

Archive: testItem.data.zip
inflating: testItem.data
Archive: trainItem.data.zip
inflating: trainItem.data

Part 1

In [8]:

```
from pyspark.ml.evaluation import RegressionEvaluator  
from pyspark.ml.recommendation import ALS
```

In [9]:

```
training = spark.read.csv("trainItem.data", header = False)  
training.show(5)
```

```
+-----+-----+----+  
|  _c0|  _c1|_c2|  
+-----+-----+----+  
|199808|248969| 90|  
|199808| 2663| 90|  
|199808| 28341| 90|  
|199808| 42563| 90|  
|199808| 59092| 90|  
+-----+-----+----+  
only showing top 5 rows
```

In [10]:

```
training = training.withColumnRenamed("_c0", "userID").withColumnRenamed("_c1", "itemID")  
.withColumnRenamed("_c2", "rating")  
training.show(5)
```

```
+-----+-----+-----+  
|userID|itemID|rating|  
+-----+-----+-----+  
|199808|248969|    90|  
|199808| 2663|    90|  
|199808| 28341|    90|  
|199808| 42563|    90|  
|199808| 59092|    90|  
+-----+-----+-----+  
only showing top 5 rows
```

In [11]:

```
from pyspark.sql.types import IntegerType
training = training.withColumn("userID", training["userID"].cast(IntegerType()))
training = training.withColumn("itemID", training["itemID"].cast(IntegerType()))
training = training.withColumn("rating", training["rating"].cast('float'))
training.show(3)
```

```
+-----+-----+-----+
|userID|itemID|rating|
+-----+-----+-----+
|199808|248969|  90.0|
|199808| 2663|  90.0|
|199808| 28341|  90.0|
+-----+-----+-----+
only showing top 3 rows
```

In [12]:

```
als = ALS(
    maxIter=15,
    rank = 20,
    regParam=0.01,
    userCol="userID",
    itemCol="itemID",
    ratingCol="rating",
    nonnegative = True,
    implicitPrefs = False,
    coldStartStrategy="nan"
)
```

In [13]:

```
model = als.fit(training)
```

In [14]:

```
testing = spark.read.csv("testItem.data", header = False)
```

In [15]:

```
testing = testing.withColumnRenamed("_c0", "userID").withColumnRenamed("_c1", "itemID").
withColumnRenamed("_c2", "rating")
testing.show(5)
```

```
+-----+-----+-----+
|userID|itemID|rating|
+-----+-----+-----+
|199810|208019|    0|
|199810| 74139|    0|
|199810|  9903|    0|
|199810|242681|    0|
|199810| 18515|    0|
+-----+-----+-----+
only showing top 5 rows
```

In []:

In [16]:

```
testing = testing.withColumn("userID", testing["userID"].cast(IntegerType()))
testing = testing.withColumn("itemID", testing["itemID"].cast(IntegerType()))
testing = testing.withColumn("rating", testing["rating"].cast('float'))
testing.show(3)
```

```
+-----+-----+-----+
|userID|itemID|rating|
+-----+-----+-----+
```

```
|199810|208019|    0.0|
|199810| 74139|    0.0|
|199810|  9903|    0.0|
+-----+-----+-----+
only showing top 3 rows
```

In [17]:

```
predictions = model.transform(testing)
predictions.show(5)
```

```
+-----+-----+-----+-----+
|userID|itemID|rating|prediction|
+-----+-----+-----+-----+
|199810|  9903|    0.0| 57.165627|
|199810|105760|    0.0| 76.09055|
|199810| 18515|    0.0| 62.934628|
|199810| 74139|    0.0| 113.01987|
|199810|208019|    0.0| 61.81774|
+-----+-----+-----+-----+
only showing top 5 rows
```

In [18]:

```
predictions_df = predictions.toPandas()
```

In [19]:

```
predictions_df['prediction'] = predictions_df['prediction'].fillna(predictions_df['prediction'].mean())
```

In [20]:

```
predictions_df['TrackID'] = predictions_df['userID'].astype(str) + '_' + predictions_df['itemID'].astype(str)
```

In [21]:

```
import numpy as np
import pandas as pd
```

In [22]:

```
pd.concat([
    predictions_df.sort_values('prediction').groupby(['userID']).head(3).assign(Predictor=0),
    predictions_df.sort_values('prediction').groupby(['userID']).tail(3).assign(Predictor=1),
])[['TrackID', 'Predictor']].to_csv('predict.csv', index=None)
```

Part 2

In [23]:

```
from pyspark.ml.evaluation import RegressionEvaluator
```

In [24]:

```
data = spark.read.csv('re_u.data', header=False).withColumnRenamed('_c0', 'userID').withColumnRenamed('_c1', 'itemID').withColumnRenamed('_c2', 'rating')
data = data.withColumn("userID", data["userID"].cast(IntegerType()))
data = data.withColumn("itemID", data["itemID"].cast(IntegerType()))
data = data.withColumn("rating", data["rating"].cast('float'))
```

In [25]:

```
scorer = [
```

```
scores = []
```

In [26]:

```
for rank in [5, 7, 10, 20]:
    als = ALS(
        maxIter = 20,
        rank = rank,
        userCol="userID",
        itemCol="itemID",
        ratingCol="rating",
        nonnegative = True,
        implicitPrefs = False,
        coldStartStrategy="nan"
    )
    model = als.fit(data)
    prediction = model.transform(data)
    mse = RegressionEvaluator(predictionCol='prediction', labelCol='rating', metricName='
mse').evaluate(prediction)
    scores.append({'maxIter': 20, 'rank': rank, 'mse': mse, 'scenario': 1})
```

In [27]:

```
for maxIter in [2, 5, 10, 20]:
    als = ALS(
        maxIter = maxIter,
        rank = 20,
        userCol="userID",
        itemCol="itemID",
        ratingCol="rating",
        nonnegative = True,
        implicitPrefs = False,
        coldStartStrategy="nan"
    )
    model = als.fit(data)
    prediction = model.transform(data)
    mse = RegressionEvaluator(predictionCol='prediction', labelCol='rating', metricName='
mse').evaluate(prediction)
    scores.append({'maxIter': maxIter, 'rank': 20, 'mse': mse, 'scenario': 2})
```

In [28]:

```
for size in [2000, 5000, 10000, 20000, 50000, 100000]:
    data_sample = data.limit(size)
    als = ALS(
        maxIter = 20,
        rank = 20,
        userCol="userID",
        itemCol="itemID",
        ratingCol="rating",
        nonnegative = True,
        implicitPrefs = False,
        coldStartStrategy="nan"
    )
    model = als.fit(data_sample)
    prediction = model.transform(data).na.drop(how="any")
    mse = RegressionEvaluator(predictionCol='prediction', labelCol='rating', metricName='
mse').evaluate(prediction)
    scores.append({'maxIter': 20, 'rank': 20, 'size': size, 'mse': mse, 'scenario': 3})
```

In [29]:

```
pd.DataFrame(scores) #.sort_values('mse')
```

Out[29]:

	maxIter	rank	mse	scenario	size
0	20	5	0.678730	1	NaN
1	20	7	0.639213	1	NaN
2	20	10	0.601540	1	NaN

z	20	10	0.601342	1	NaN
maxlter	rank	mse	scenario	size	
3	20	20	0.531840	1	NaN
4	2	20	0.765110	2	NaN
5	5	20	0.599567	2	NaN
6	10	20	0.554156	2	NaN
7	20	20	0.531840	2	NaN
8	20	20	1.727324	3	2000.0
9	20	20	1.276864	3	5000.0
10	20	20	0.984825	3	10000.0
11	20	20	0.753996	3	20000.0
12	20	20	0.618913	3	50000.0
13	20	20	0.531840	3	100000.0

1. Varying "Rank" Size with Fixed "maxlter=20":

- Rank=5: MSE = 0.681626
- Rank=7: MSE = 0.642118
- Rank=10: MSE = 0.598953
- Rank=20: MSE = 0.533063

Here, we see a clear trend: as the rank size increases, the MSE decreases. This suggests that a more complex model (with higher rank) captures the data's structure better, up to rank 20. There is no evidence of overfitting within the ranks tested as the MSE consistently decreases.

2. Varying "maxlter" with Fixed "Rank=20":

- maxlter=2: MSE = 0.772485
- maxlter=5: MSE = 0.608501
- maxlter=10: MSE = 0.558674
- maxlter=20: MSE = 0.533063

In this scenario, a higher number of iterations allows the model to converge more, resulting in a lower MSE. The trend is decreasing MSE with increased iterations, suggesting that more iterations help the model learn better up to the tested iteration count.

3. Varying Data Size with Fixed "Rank=10" and "maxlter=20":

- Size=2000: MSE = 1.728574
- Size=5000: MSE = 1.273880
- Size=10000: MSE = 0.986917
- Size=20000: MSE = 0.749770
- Size=50000: MSE = 0.621138
- Size=100000: MSE = 0.533063

For this scenario, as the data size increases, the MSE generally decreases, which indicates that the model benefits from more data, possibly because it can better understand user preferences and item characteristics with a larger dataset. However, the decrease is not linear, and there are diminishing returns as data size increases.

Of the 3, it appears that changing the rank produces the biggest affect on MSE.

In []: