

   

Driver Race And Point Info

Recalculate points

Smry job

Race Info

Race Track Info

Driver info

* Orange - Parent Job

Point Position Map

SCD 2

* Yellow - Child Job
* Green- Summary/Computing job
* Grey - Batch Job

Note : Points considered from points\_position\_map table and not points specified in kafka message.

Flow:

* driver\_info (triggeres [driver\_race\_info and driver\_race\_point ])
* race\_track\_info (triggeres [race\_info ])
* race\_track\_info -> race\_info (triggeres [driver\_race\_info and driver\_race\_point ])
* race\_info && driver\_info -> [driver\_race\_info and driver\_race\_point]
* [driver\_race\_info and driver\_race\_point] -> triggeres [re calculation for the season]
* [re calculation for the season] updates driver\_standings table using points\_position\_map table

Parent child concepts :

* In order for driver points info records to be released, race driver info must be present in driver\_race\_info table or must be released in that batch from driver\_points\_table.
* In order for driver\_race\_info to be released driver\_info and race\_info must be present.
* In order for race\_info to be released, race\_track\_info must have the record .

DDL:

create table kafka\_db.driver\_points(

driver\_id varchar(10),

race\_id varchar(10),

point integer,

position integer,

season integer,

incoming\_timestamp timestamp);

create table kafka\_db.driver\_race\_info(

driver\_id varchar(10),

race\_entry varchar(10),

incoming\_timestamp timestamp);

create table kafka\_db.driver\_info(

driver\_id varchar(10),

driver\_name varchar(50),

season integer,

incoming\_timestamp timestamp);

create table kafka\_db.race\_info(

race\_id varchar(10),

race\_track\_id varchar(10),

race\_date date,

race\_season integer,

incoming\_timestamp timestamp);

create table kafka\_db.race\_track\_info(

race\_track\_id varchar(10),

race\_venue varchar(50),

incoming\_timestamp timestamp);

// scd 2 for this via batch job

create table kafka\_db.points\_position\_map(

position varchar(10),

point varchar(50),

season integer,

start\_date date,

end\_date date default null,

incoming\_timestamp timestamp default current\_timestamp() );

create table kafka\_db.driver\_standings(

driver\_id varchar(10),

race\_position\_percentage decimal(10,4),

season integer,

standings integer,

total\_points decimal(10,4));

/// active , not active can be added

create table kafka\_db.driver\_point\_temp(resolve\_key varchar(20),

job\_name varchar(50),incoming\_timestamp timestamp,message\_in\_json varchar(500));

Batch Job:

Points\_position map :

Key cols(season,position)

If record is present in table,

* end date will be updated if table start date is < record start date date ,and new rec is inserted

If record is present in table with end date ,

* if table end date < record start date record is inserted
* if table end date > record start date

check if record has calculated end date

if record has calculated end date ,

if record end date > table end date,

rec start date is table end date +1

if record end date < table end date, it is dropped

if record end date == table end date, it is dropped

If no record end date

then the start date of record is table end date +1

Batch job checks :

pointsToPosition Map file :

file1:

season|position|startDate|points

2020|1|2020-01-01|10

2020|2|2020-01-01|8

2020|3|2020-01-01|7

2020|3|2020-01-01|8

file2:

season|position|startDate|points

2020|3|2020-02-01|6

2020|2|2020-02-01|8

2020|4|2020-01-01|4

2020|5|2020-01-01|2

file3:

season|position|startDate|points

2020|6|2020-02-01|1

2020|6|2020-03-01|1

2020|7|2020-02-01|0

2020|8|2020-01-01|0

2020|9|2020-01-01|0

// pure insert

file4:

season|position|startDate|points

2020|-1|2020-02-01|-1

2020|-2|2020-03-01|-2

2020|-3|2020-02-01|-3

2020|-4|2020-01-01|-4

2020|-5|2020-01-01|-5

2020|-6|2020-02-01|-6

2020|-7|2020-01-01|-7

2020|-8|2020-01-01|-8

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update kafka\_db.points\_position\_map set end\_date='2020-05-01' where season=2020 and position=2 and start\_date='2020-02-01';

// upsert and sce tricks check

// 4,-1 scn check

file5:

season|position|startDate|points

2020|2|2020-03-01|8

2020|2|2020-04-01|8

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update kafka\_db.points\_position\_map set end\_date='2020-05-01' where season=2020 and position=3 and start\_date='2020-02-01';

// 4,0 scn check

file6:

season|position|startDate|points

2020|3|2020-03-01|8

2020|3|2020-04-01|8

2020|3|2020-06-01|8

update kafka\_db.points\_position\_map set end\_date='2020-05-01' where season=2020 and position=4 and start\_date='2020-01-01';

// 4,-2 scn check

file7:

season|position|startDate|points

2020|4|2020-03-01|4

2020|4|2020-05-01|4

2020|4|2020-06-01|4

Script:

spark-submit --packages mysql:mysql-connector-java:8.0.26,org.apache.spark:spark-sql-kafka-0-10\_2.12:3.1.2 --driver-memory 2g --driver-cores 2 --executor-memory 2g --executor-cores 2 --num-executors 2 --conf spark.driver.memoryOverhead=1g --class org.controller.rankingSystemF1.positionPointsMap /home/raptor/IdeaProjects/SparkLearning/build/libs/SparkLearning-1.0-SNAPSHOT.jar outputTopic="recalculate.points" bootStrapServer=localhost:8081,localhost:8082,localhost:8083 valueSerializer="org.apache.kafka.common.serialization.StringSerializer" keySerializer="org.apache.kafka.common.serialization.StringSerializer" checkPointLocation="hdfs://localhost:8020/user/raptor/kafka/pointsRecalc" startingOffsets=latest topic="driver.race.points" schemaName=kafka\_db driverPointsTable=driver\_points JDBCUrl="jdbc:mysql://localhost:3306/kafka\_db?user=raptor?password=" JDBCPassword="" JDBCUser=raptor JDBCDriver="com.mysql.jdbc.Driver" stateExpiry=300000 raceInfoTable=race\_info driverInfoTable=driver\_info driverRaceInfoTable=driver\_race\_info driverPointsTemp=driver\_point\_temp raceTrackInfoTable=race\_track\_info pointsPositionMapTable=points\_position\_map driverStandingsTable=driver\_standings inputPath="hdfs://localhost:8020/user/raptor/inputBatchPointsPositionMap/file1.txt"

spark-submit --packages mysql:mysql-connector-java:8.0.26,org.apache.spark:spark-sql-kafka-0-10\_2.12:3.1.2 --driver-memory 2g --driver-cores 2 --executor-memory 2g --executor-cores 2 --num-executors 2 --conf spark.driver.memoryOverhead=1g --class org.controller.rankingSystemF1.positionPointsMap /home/raptor/IdeaProjects/SparkLearning/build/libs/SparkLearning-1.0-SNAPSHOT.jar outputTopic="recalculate.points" bootStrapServer=localhost:8081,localhost:8082,localhost:8083 valueSerializer="org.apache.kafka.common.serialization.StringSerializer" keySerializer="org.apache.kafka.common.serialization.StringSerializer" checkPointLocation="hdfs://localhost:8020/user/raptor/kafka/pointsRecalc" startingOffsets=latest topic="driver.race.points" schemaName=kafka\_db driverPointsTable=driver\_points JDBCUrl="jdbc:mysql://localhost:3306/kafka\_db?user=raptor?password=" JDBCPassword="" JDBCUser=raptor JDBCDriver="com.mysql.jdbc.Driver" stateExpiry=300000 raceInfoTable=race\_info driverInfoTable=driver\_info driverRaceInfoTable=driver\_race\_info driverPointsTemp=driver\_point\_temp raceTrackInfoTable=race\_track\_info pointsPositionMapTable=points\_position\_map driverStandingsTable=driver\_standings inputPath="hdfs://localhost:8020/user/raptor/inputBatchPointsPositionMap/file2.txt"

spark-submit --packages mysql:mysql-connector-java:8.0.26,org.apache.spark:spark-sql-kafka-0-10\_2.12:3.1.2 --driver-memory 2g --driver-cores 2 --executor-memory 2g --executor-cores 2 --num-executors 2 --conf spark.driver.memoryOverhead=1g --class org.controller.rankingSystemF1.positionPointsMap /home/raptor/IdeaProjects/SparkLearning/build/libs/SparkLearning-1.0-SNAPSHOT.jar outputTopic="recalculate.points" bootStrapServer=localhost:8081,localhost:8082,localhost:8083 valueSerializer="org.apache.kafka.common.serialization.StringSerializer" keySerializer="org.apache.kafka.common.serialization.StringSerializer" checkPointLocation="hdfs://localhost:8020/user/raptor/kafka/pointsRecalc" startingOffsets=latest topic="driver.race.points" schemaName=kafka\_db driverPointsTable=driver\_points JDBCUrl="jdbc:mysql://localhost:3306/kafka\_db?user=raptor?password=" JDBCPassword="" JDBCUser=raptor JDBCDriver="com.mysql.jdbc.Driver" stateExpiry=300000 raceInfoTable=race\_info driverInfoTable=driver\_info driverRaceInfoTable=driver\_race\_info driverPointsTemp=driver\_point\_temp raceTrackInfoTable=race\_track\_info pointsPositionMapTable=points\_position\_map driverStandingsTable=driver\_standings inputPath="hdfs://localhost:8020/user/raptor/inputBatchPointsPositionMap/file3.txt"

spark-submit --packages mysql:mysql-connector-java:8.0.26,org.apache.spark:spark-sql-kafka-0-10\_2.12:3.1.2 --driver-memory 2g --driver-cores 2 --executor-memory 2g --executor-cores 2 --num-executors 2 --conf spark.driver.memoryOverhead=1g --class org.controller.rankingSystemF1.positionPointsMap /home/raptor/IdeaProjects/SparkLearning/build/libs/SparkLearning-1.0-SNAPSHOT.jar outputTopic="recalculate.points" bootStrapServer=localhost:8081,localhost:8082,localhost:8083 valueSerializer="org.apache.kafka.common.serialization.StringSerializer" keySerializer="org.apache.kafka.common.serialization.StringSerializer" checkPointLocation="hdfs://localhost:8020/user/raptor/kafka/pointsRecalc" startingOffsets=latest topic="driver.race.points" schemaName=kafka\_db driverPointsTable=driver\_points JDBCUrl="jdbc:mysql://localhost:3306/kafka\_db?user=raptor?password=" JDBCPassword="" JDBCUser=raptor JDBCDriver="com.mysql.jdbc.Driver" stateExpiry=300000 raceInfoTable=race\_info driverInfoTable=driver\_info driverRaceInfoTable=driver\_race\_info driverPointsTemp=driver\_point\_temp raceTrackInfoTable=race\_track\_info pointsPositionMapTable=points\_position\_map driverStandingsTable=driver\_standings inputPath="hdfs://localhost:8020/user/raptor/inputBatchPointsPositionMap/file4.txt"

mysql -u raptor -e "update kafka\_db.points\_position\_map set end\_date='2020-05-01' where season=2020 and position=2 and start\_date='2020-02-01'"

spark-submit --packages mysql:mysql-connector-java:8.0.26,org.apache.spark:spark-sql-kafka-0-10\_2.12:3.1.2 --driver-memory 2g --driver-cores 2 --executor-memory 2g --executor-cores 2 --num-executors 2 --conf spark.driver.memoryOverhead=1g --class org.controller.rankingSystemF1.positionPointsMap /home/raptor/IdeaProjects/SparkLearning/build/libs/SparkLearning-1.0-SNAPSHOT.jar outputTopic="recalculate.points" bootStrapServer=localhost:8081,localhost:8082,localhost:8083 valueSerializer="org.apache.kafka.common.serialization.StringSerializer" keySerializer="org.apache.kafka.common.serialization.StringSerializer" checkPointLocation="hdfs://localhost:8020/user/raptor/kafka/pointsRecalc" startingOffsets=latest topic="driver.race.points" schemaName=kafka\_db driverPointsTable=driver\_points JDBCUrl="jdbc:mysql://localhost:3306/kafka\_db?user=raptor?password=" JDBCPassword="" JDBCUser=raptor JDBCDriver="com.mysql.jdbc.Driver" stateExpiry=300000 raceInfoTable=race\_info driverInfoTable=driver\_info driverRaceInfoTable=driver\_race\_info driverPointsTemp=driver\_point\_temp raceTrackInfoTable=race\_track\_info pointsPositionMapTable=points\_position\_map driverStandingsTable=driver\_standings inputPath="hdfs://localhost:8020/user/raptor/inputBatchPointsPositionMap/file5.txt"

mysql -u raptor -e "update kafka\_db.points\_position\_map set end\_date='2020-05-01' where season=2020 and position=3 and start\_date='2020-02-01'"

spark-submit --packages mysql:mysql-connector-java:8.0.26,org.apache.spark:spark-sql-kafka-0-10\_2.12:3.1.2 --driver-memory 2g --driver-cores 2 --executor-memory 2g --executor-cores 2 --num-executors 2 --conf spark.driver.memoryOverhead=1g --class org.controller.rankingSystemF1.positionPointsMap /home/raptor/IdeaProjects/SparkLearning/build/libs/SparkLearning-1.0-SNAPSHOT.jar outputTopic="recalculate.points" bootStrapServer=localhost:8081,localhost:8082,localhost:8083 valueSerializer="org.apache.kafka.common.serialization.StringSerializer" keySerializer="org.apache.kafka.common.serialization.StringSerializer" checkPointLocation="hdfs://localhost:8020/user/raptor/kafka/pointsRecalc" startingOffsets=latest topic="driver.race.points" schemaName=kafka\_db driverPointsTable=driver\_points JDBCUrl="jdbc:mysql://localhost:3306/kafka\_db?user=raptor?password=" JDBCPassword="" JDBCUser=raptor JDBCDriver="com.mysql.jdbc.Driver" stateExpiry=300000 raceInfoTable=race\_info driverInfoTable=driver\_info driverRaceInfoTable=driver\_race\_info driverPointsTemp=driver\_point\_temp raceTrackInfoTable=race\_track\_info pointsPositionMapTable=points\_position\_map driverStandingsTable=driver\_standings inputPath="hdfs://localhost:8020/user/raptor/inputBatchPointsPositionMap/file6.txt"

mysql -u raptor -e "update kafka\_db.points\_position\_map set end\_date='2020-05-01' where season=2020 and position=4 and start\_date='2020-01-01'"

spark-submit --packages mysql:mysql-connector-java:8.0.26,org.apache.spark:spark-sql-kafka-0-10\_2.12:3.1.2 --driver-memory 2g --driver-cores 2 --executor-memory 2g --executor-cores 2 --num-executors 2 --conf spark.driver.memoryOverhead=1g --class org.controller.rankingSystemF1.positionPointsMap /home/raptor/IdeaProjects/SparkLearning/build/libs/SparkLearning-1.0-SNAPSHOT.jar outputTopic="recalculate.points" bootStrapServer=localhost:8081,localhost:8082,localhost:8083 valueSerializer="org.apache.kafka.common.serialization.StringSerializer" keySerializer="org.apache.kafka.common.serialization.StringSerializer" checkPointLocation="hdfs://localhost:8020/user/raptor/kafka/pointsRecalc" startingOffsets=latest topic="driver.race.points" schemaName=kafka\_db driverPointsTable=driver\_points JDBCUrl="jdbc:mysql://localhost:3306/kafka\_db?user=raptor?password=" JDBCPassword="" JDBCUser=raptor JDBCDriver="com.mysql.jdbc.Driver" stateExpiry=300000 raceInfoTable=race\_info driverInfoTable=driver\_info driverRaceInfoTable=driver\_race\_info driverPointsTemp=driver\_point\_temp raceTrackInfoTable=race\_track\_info pointsPositionMapTable=points\_position\_map driverStandingsTable=driver\_standings inputPath="hdfs://localhost:8020/user/raptor/inputBatchPointsPositionMap/file7.txt"

Streaming job:

race track info

input - race.track.info

op - race.info

spark-submit --packages mysql:mysql-connector-java:8.0.26,org.apache.spark:spark-sql-kafka-0-10\_2.12:3.1.2 --driver-memory 2g --driver-cores 2 --executor-memory 2g --executor-cores 2 --num-executors 2 --conf spark.driver.memoryOverhead=1g --class org.controller.rankingSystemF1.raceTrackToTable /home/raptor/IdeaProjects/SparkLearning/build/libs/SparkLearning-1.0-SNAPSHOT.jar outputTopic="race.info" bootStrapServer=localhost:8081,localhost:8082,localhost:8083 valueSerializer="org.apache.kafka.common.serialization.StringSerializer" keySerializer="org.apache.kafka.common.serialization.StringSerializer" checkPointLocation="hdfs://localhost:8020/user/raptor/kafka/raceTrackInfo" startingOffsets=latest topic="race.track.info" schemaName=kafka\_db driverPointsTable=driver\_points JDBCUrl="jdbc:mysql://localhost:3306/kafka\_db?user=raptor?password=" JDBCPassword="" JDBCUser=raptor JDBCDriver="com.mysql.jdbc.Driver" stateExpiry=300000 raceInfoTable=race\_info driverInfoTable=driver\_info driverRaceInfoTable=driver\_race\_info driverPointsTemp=driver\_point\_temp raceTrackInfoTable=race\_track\_info

{"messageType":"raceTrackInfo","messageTimestamp":"2021-05-01 17:19:20","incomingMessage":"{\"raceTrackId\":\"RT001\",\"raceVenue\":\"Monaco\"}"}

{"messageType":"raceTrackInfo","messageTimestamp":"2021-05-01 17:19:20","incomingMessage":"{\"raceTrackId\":\"RT002\",\"raceVenue\":\"Canada\"}"}

{"messageType":"raceTrackInfo","messageTimestamp":"2021-05-01 17:19:20","incomingMessage":"{\"raceTrackId\":\"RT003\",\"raceVenue\":\"Azerbaijan\"}"}

{"messageType":"raceTrackInfo","messageTimestamp":"2021-05-01 17:19:20","incomingMessage":"{\"raceTrackId\":\"RT004\",\"raceVenue\":\"Australia\"}"}

driver info

input - driver.info

op - driver.race.points

spark-submit --packages mysql:mysql-connector-java:8.0.26,org.apache.spark:spark-sql-kafka-0-10\_2.12:3.1.2 --driver-memory 2g --driver-cores 2 --executor-memory 2g --executor-cores 2 --num-executors 2 --conf spark.driver.memoryOverhead=1g --class org.controller.rankingSystemF1.driverToTable /home/raptor/IdeaProjects/SparkLearning/build/libs/SparkLearning-1.0-SNAPSHOT.jar outputTopic="driver.race.points" bootStrapServer=localhost:8081,localhost:8082,localhost:8083 valueSerializer="org.apache.kafka.common.serialization.StringSerializer" keySerializer="org.apache.kafka.common.serialization.StringSerializer" checkPointLocation="hdfs://localhost:8020/user/raptor/kafka/driverInfo" startingOffsets=latest topic="driver.info" schemaName=kafka\_db driverPointsTable=driver\_points JDBCUrl="jdbc:mysql://localhost:3306/kafka\_db?user=raptor?password=" JDBCPassword="" JDBCUser=raptor JDBCDriver="com.mysql.jdbc.Driver" stateExpiry=300000 raceInfoTable=race\_info driverInfoTable=driver\_info driverRaceInfoTable=driver\_race\_info driverPointsTemp=driver\_point\_temp raceTrackInfoTable=race\_track\_info

{"messageType":"driverInfo","messageTimestamp":"2021-05-01 17:19:20","incomingMessage":"{\"driverId\":\"DR001\",\"driverName\":\"Senna\",\"season\":2020}"}

{"messageType":"driverInfo","messageTimestamp":"2021-05-01 17:19:20","incomingMessage":"{\"driverId\":\"DR002\",\"driverName\":\"Max\",\"season\":2020}"}

{"messageType":"driverInfo","messageTimestamp":"2021-05-01 17:19:20","incomingMessage":"{\"driverId\":\"DR003\",\"driverName\":\"Norris\",\"season\":2020}"}

{"messageType":"driverInfo","messageTimestamp":"2021-05-01 17:19:20","incomingMessage":"{\"driverId\":\"DR004\",\"driverName\":\"Mansell\",\"season\":2020}"}

{"messageType":"driverInfo","messageTimestamp":"2021-05-01 17:19:20","incomingMessage":"{\"driverId\":\"DR005\",\"driverName\":\"Kimi\",\"season\":2020}"}

{"messageType":"driverInfo","messageTimestamp":"2021-05-01 17:19:20","incomingMessage":"{\"driverId\":\"DR006\",\"driverName\":\"Mika\",\"season\":2020}"}

{"messageType":"driverInfo","messageTimestamp":"2021-05-01 17:19:20","incomingMessage":"{\"driverId\":\"DR007\",\"driverName\":\"Jim\",\"season\":2020}"}

{"messageType":"driverInfo","messageTimestamp":"2021-05-01 17:19:20","incomingMessage":"{\"driverId\":\"DR008\",\"driverName\":\"Andretti\",\"season\":2020}"}

{"messageType":"driverInfo","messageTimestamp":"2021-05-01 17:19:20","incomingMessage":"{\"driverId\":\"DR009\",\"driverName\":\"Fittipaldi\",\"season\":2020}"}

{"messageType":"driverInfo","messageTimestamp":"2021-05-01 17:19:20","incomingMessage":"{\"driverId\":\"DR010\",\"driverName\":\"Massa\",\"season\":2020}"}

race info to table

input - race.info

op - driver.race.points

spark-submit --packages mysql:mysql-connector-java:8.0.26,org.apache.spark:spark-sql-kafka-0-10\_2.12:3.1.2 --driver-memory 2g --driver-cores 2 --executor-memory 2g --executor-cores 2 --num-executors 2 --conf spark.driver.memoryOverhead=1g --class org.controller.rankingSystemF1.raceInfoToTable /home/raptor/IdeaProjects/SparkLearning/build/libs/SparkLearning-1.0-SNAPSHOT.jar outputTopic="driver.race.points" bootStrapServer=localhost:8081,localhost:8082,localhost:8083 valueSerializer="org.apache.kafka.common.serialization.StringSerializer" keySerializer="org.apache.kafka.common.serialization.StringSerializer" checkPointLocation="hdfs://localhost:8020/user/raptor/kafka/raceInfo" startingOffsets=latest topic="race.info" schemaName=kafka\_db driverPointsTable=driver\_points JDBCUrl="jdbc:mysql://localhost:3306/kafka\_db?user=raptor?password=" JDBCPassword="" JDBCUser=raptor JDBCDriver="com.mysql.jdbc.Driver" stateExpiry=300000 raceInfoTable=race\_info driverInfoTable=driver\_info driverRaceInfoTable=driver\_race\_info driverPointsTemp=driver\_point\_temp raceTrackInfoTable=race\_track\_info

{"messageType":"raceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"raceId\":\"RC001\",\"raceTrackId\":\"RT002\",\"raceDate\":\"2020-04-02\",\"season\":2020}"}

{"messageType":"raceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"raceId\":\"RC002\",\"raceTrackId\":\"RT001\",\"raceDate\":\"2020-05-02\",\"season\":2020}"}

{"messageType":"raceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"raceId\":\"RC003\",\"raceTrackId\":\"RT002\",\"raceDate\":\"2020-05-03\",\"season\":2020}"}

{"messageType":"raceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"raceId\":\"RC004\",\"raceTrackId\":\"RT001\",\"raceDate\":\"2020-05-04\",\"season\":2020}"}

{"messageType":"raceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"raceId\":\"RC005\",\"raceTrackId\":\"RT003\",\"raceDate\":\"2020-05-04\",\"season\":2020}"}

{"messageType":"raceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"raceId\":\"RC006\",\"raceTrackId\":\"RT004\",\"raceDate\":\"2020-05-04\",\"season\":2020}"}

input - driver.race.points

op - recalculate.points

spark-submit --packages mysql:mysql-connector-java:8.0.26,org.apache.spark:spark-sql-kafka-0-10\_2.12:3.1.2 --driver-memory 2g --driver-cores 2 --executor-memory 2g --executor-cores 2 --num-executors 2 --conf spark.driver.memoryOverhead=1g --class org.controller.rankingSystemF1.driverRaceAndPointsInfo /home/raptor/IdeaProjects/SparkLearning/build/libs/SparkLearning-1.0-SNAPSHOT.jar outputTopic="recalculate.points" bootStrapServer=localhost:8081,localhost:8082,localhost:8083 valueSerializer="org.apache.kafka.common.serialization.StringSerializer" keySerializer="org.apache.kafka.common.serialization.StringSerializer" checkPointLocation="hdfs://localhost:8020/user/raptor/kafka/raceAndPointInfo" startingOffsets=latest topic="driver.race.points" schemaName=kafka\_db driverPointsTable=driver\_points JDBCUrl="jdbc:mysql://localhost:3306/kafka\_db?user=raptor?password=" JDBCPassword="" JDBCUser=raptor JDBCDriver="com.mysql.jdbc.Driver" stateExpiry=300000 raceInfoTable=race\_info driverInfoTable=driver\_info driverRaceInfoTable=driver\_race\_info driverPointsTemp=driver\_point\_temp raceTrackInfoTable=race\_track\_info

driverRaceInfo

driverPointsInfo

/\*

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR001\",\"season\":2020,\"raceId\":\"RC001\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR001\",\"raceId\":\"RC001\",\"position\":4,\"season\":2020,\"point\":12}"}

// grand parent check , with driver info

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR002\",\"raceId\":\"RC001\",\"position\":5,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR002\",\"season\":2020,\"raceId\":\"RC001\"}"}

// grand parent check , with race info

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR002\",\"raceId\":\"RC003\",\"position\":5,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR002\",\"season\":2020,\"raceId\":\"RC003\"}"}

// grand parent check , with race info and driver info

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR003\",\"raceId\":\"RC004\",\"position\":5,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR003\",\"season\":2020,\"raceId\":\"RC004\"}"}

\*/

-- DR001

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR001\",\"raceId\":\"RC001\",\"position\":1,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR001\",\"season\":2020,\"raceId\":\"RC001\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR001\",\"raceId\":\"RC002\",\"position\":2,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR001\",\"season\":2020,\"raceId\":\"RC002\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR001\",\"raceId\":\"RC003\",\"position\":7,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR001\",\"season\":2020,\"raceId\":\"RC003\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR001\",\"raceId\":\"RC004\",\"position\":4,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR001\",\"season\":2020,\"raceId\":\"RC004\"}"}

-- DR002

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR002\",\"raceId\":\"RC001\",\"position\":2,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR002\",\"season\":2020,\"raceId\":\"RC001\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR002\",\"raceId\":\"RC002\",\"position\":1,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR002\",\"season\":2020,\"raceId\":\"RC002\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR002\",\"raceId\":\"RC003\",\"position\":4,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR002\",\"season\":2020,\"raceId\":\"RC003\"}"}

-- DR003

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR003\",\"raceId\":\"RC001\",\"position\":3,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR003\",\"season\":2020,\"raceId\":\"RC001\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR003\",\"raceId\":\"RC002\",\"position\":3,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR003\",\"season\":2020,\"raceId\":\"RC002\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR003\",\"raceId\":\"RC003\",\"position\":4,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR003\",\"season\":2020,\"raceId\":\"RC003\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR003\",\"raceId\":\"RC004\",\"position\":4,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR003\",\"season\":2020,\"raceId\":\"RC004\"}"}

-- DR004

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR004\",\"raceId\":\"RC001\",\"position\":4,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR004\",\"season\":2020,\"raceId\":\"RC001\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR004\",\"raceId\":\"RC002\",\"position\":4,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR004\",\"season\":2020,\"raceId\":\"RC002\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR004\",\"raceId\":\"RC003\",\"position\":3,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR004\",\"season\":2020,\"raceId\":\"RC003\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR004\",\"raceId\":\"RC004\",\"position\":3,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR004\",\"season\":2020,\"raceId\":\"RC004\"}"}

-- DR005

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR005\",\"raceId\":\"RC001\",\"position\":4,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR005\",\"season\":2020,\"raceId\":\"RC001\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR005\",\"raceId\":\"RC002\",\"position\":5,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR005\",\"season\":2020,\"raceId\":\"RC002\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR005\",\"raceId\":\"RC003\",\"position\":6,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR005\",\"season\":2020,\"raceId\":\"RC003\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR005\",\"raceId\":\"RC004\",\"position\":6,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR005\",\"season\":2020,\"raceId\":\"RC004\"}"}

-- DR006

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR006\",\"raceId\":\"RC001\",\"position\":5,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR006\",\"season\":2020,\"raceId\":\"RC001\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR006\",\"raceId\":\"RC002\",\"position\":6,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR006\",\"season\":2020,\"raceId\":\"RC002\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR006\",\"raceId\":\"RC003\",\"position\":5,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR006\",\"season\":2020,\"raceId\":\"RC003\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR006\",\"raceId\":\"RC004\",\"position\":7,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR006\",\"season\":2020,\"raceId\":\"RC004\"}"}

-- DR007

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR007\",\"raceId\":\"RC005\",\"position\":10,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR007\",\"season\":2020,\"raceId\":\"RC005\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR007\",\"raceId\":\"RC006\",\"position\":-2,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR007\",\"season\":2020,\"raceId\":\"RC006\"}"}

-- DR008

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR008\",\"raceId\":\"RC006\",\"position\":2,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR008\",\"season\":2020,\"raceId\":\"RC006\"}"}

-- DR009

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR009\",\"raceId\":\"RC005\",\"position\":7,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR009\",\"season\":2020,\"raceId\":\"RC005\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR009\",\"raceId\":\"RC006\",\"position\":8,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR009\",\"season\":2020,\"raceId\":\"RC006\"}"}

-- DR010

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR010\",\"raceId\":\"RC005\",\"position\":8,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR010\",\"season\":2020,\"raceId\":\"RC005\"}"}

{"messageType":"driverPointsInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR010\",\"raceId\":\"RC006\",\"position\":7,\"season\":2020,\"point\":10}"}

{"messageType":"driverRaceInfo","messageTimestamp":"2021-11-01 17:19:20","incomingMessage":"{\"driverId\":\"DR010\",\"season\":2020,\"raceId\":\"RC006\"}"}

Kafka push scripts:

/home/raptor/Softwares/kafka\_2.12-2.8.0/bin/kafka-console-producer.sh --broker-list localhost:8081,localhost:8082,localhost:8083 --topic driver.race.points < driverPointsInfo.txt

/home/raptor/Softwares/kafka\_2.12-2.8.0/bin/kafka-console-producer.sh --broker-list localhost:8081,localhost:8082,localhost:8083 --topic driver.race.points < driverRaceInfo.txt

/home/raptor/Softwares/kafka\_2.12-2.8.0/bin/kafka-console-producer.sh --broker-list localhost:8081,localhost:8082,localhost:8083 --topic driver.info < driverInfo.txt

/home/raptor/Softwares/kafka\_2.12-2.8.0/bin/kafka-console-producer.sh --broker-list localhost:8081,localhost:8082,localhost:8083 --topic race.info < raceInfo.txt

/home/raptor/Softwares/kafka\_2.12-2.8.0/bin/kafka-console-producer.sh --broker-list localhost:8081,localhost:8082,localhost:8083 --topic race.track.info < raceTrackInfo.txt

/home/raptor/Softwares/kafka\_2.12-2.8.0/bin/kafka-console-consumer.sh --bootstrap-server localhost:8081,localhost:8082,localhost:8083 --topic recalculate.points