

Spark SQL: Takeaways

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Syntax

- Registering an RDD as a temporary table:

```
from pyspark.sql import SQLContext  
sqlCtx = SQLContext(sc)  
df = sqlCtx.read.json("census_2010.json")  
df.registerTempTable('census2010')
```

- Returning a list of tables:

```
tables = sqlCtx.tableNames()
```

- Querying a table in Spark:

```
sqlCtx.sql('select age from census2010').show()
```

- Calculating summary statistics for a DataFrame:

```
query = 'select males, females from census2010'  
sqlCtx.sql(query).describe().show()
```

Concepts

- Spark maintains a virtual database within a SQLContext object. This makes it possible it use Spark's SQL interface to query and interact with the data.
- Spark's uses a type of SQL that is identical to SQLite to query a table.
- Spark SQL allows you to run join queries across data from multiple file types.
- Spark SQL supports the functions and operators from SQLite. Supported functions operators are as follows:
 - COUNT()
 - AVG()
 - SUM()

- AND
- OR

Resources

- [Spark SQL](#)
- [Purpose of Spark SQL](#)



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