databricks

Get Started with PySpark Programming

Module Agenda

Get Started with PySpark Programming

Spark SQL Overview

DE 0.1 - Spark SQL

DE 0.2L - Spark SQL Lab

DE 0.3 - DataFrame & Column

DE 0.4L - Purchase Revenues Lab

DE 0.5 - Aggregation

DE 0.6L - Revenue by Traffic Lab

Spark SQL Overview

Spark SQL is a module for structured data processing with multiple interfaces

SQL

DataFrame API

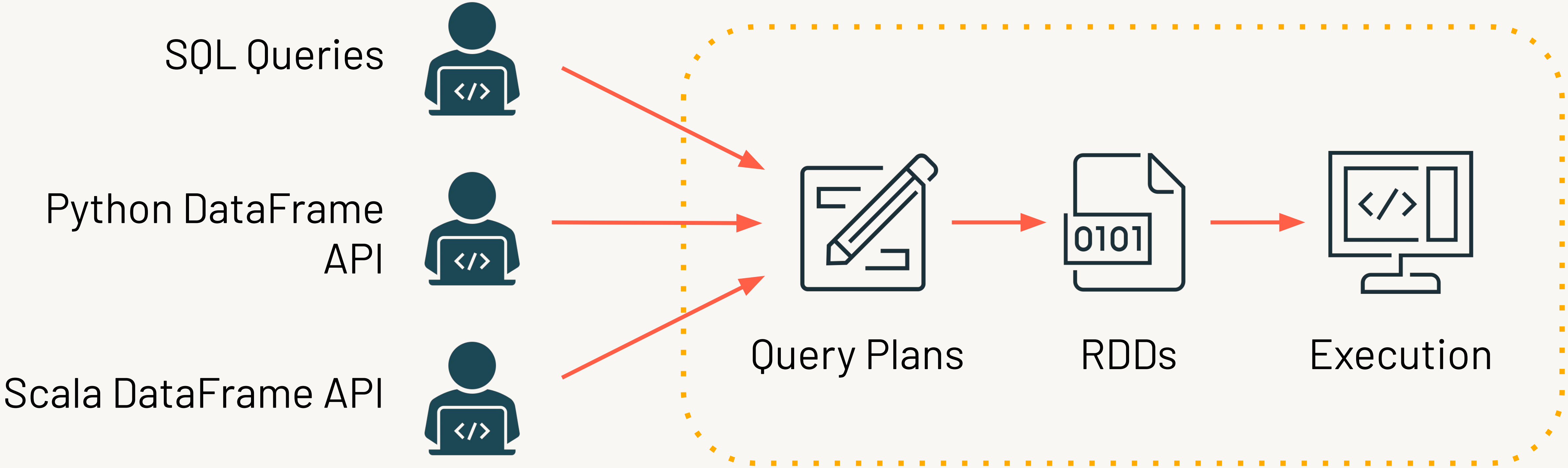
Python, Scala, Java, R

The same Spark SQL query can be expressed with SQL and the DataFrame API

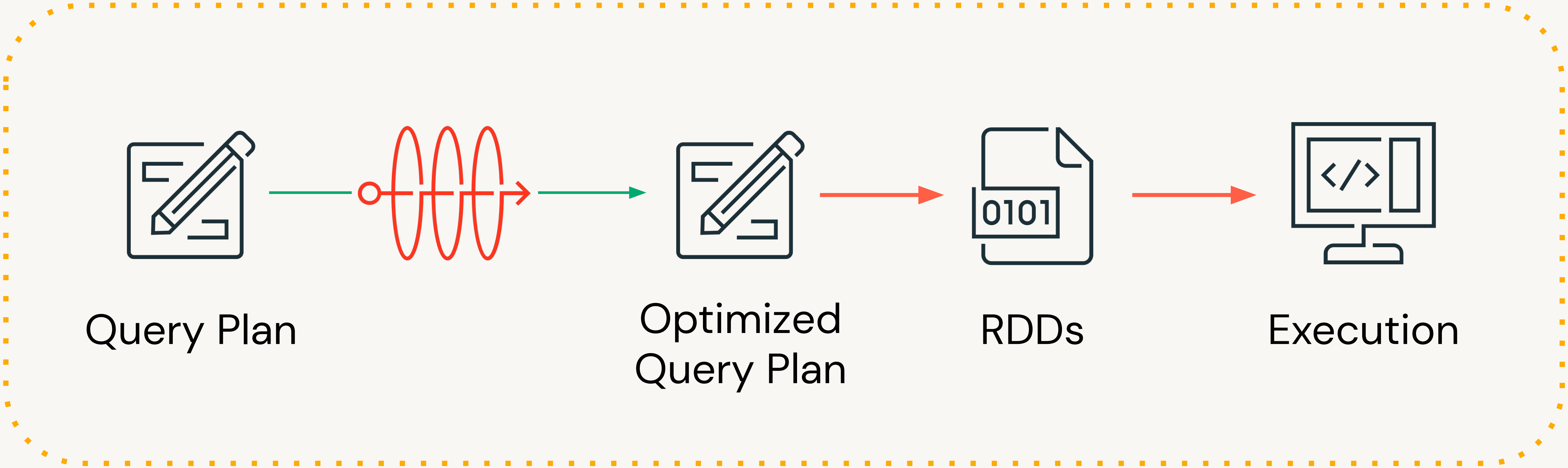
```sql
SELECT id, result
FROM exams
WHERE result > 70
ORDER BY result
```

```python
spark.table("exams")
   .select("id", "result")
   .where("result > 70")
   .orderBy("result")
```

Spark SQL executes all queries on the same engine



Spark SQL optimizes queries before execution


Query Plan
Optimized Query Plan
0101
RDDs
Execution