Using Connection Pooling, Transactions, and RowSets

JDBC CONNECTION POOLS

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Overview

JDBC Connection Pools

JDBC Transactions

JDBC RowSets

Alternatives for JDBC Connection Management

DriverManager

JDBC 4

Class.forName()

JDBC 2 - 3

JNDI

JDBC 3, J2EE

DataSource Injections

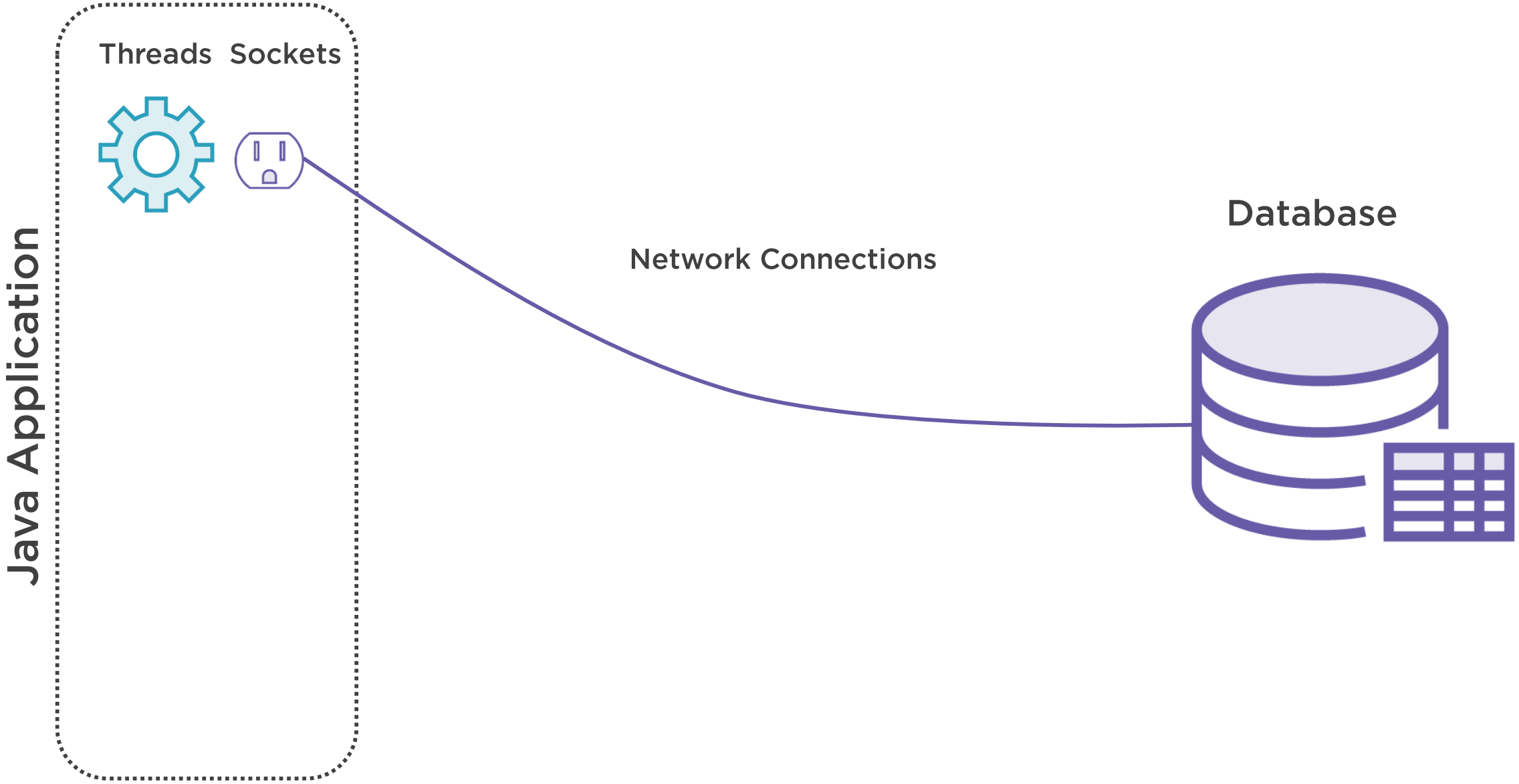
JDBC 4, Java/Jakarta EE

JDBC Connection Pooling

JDBC 3 - 4

JDBC without Connection Pooling

JDBC without Connection Pooling



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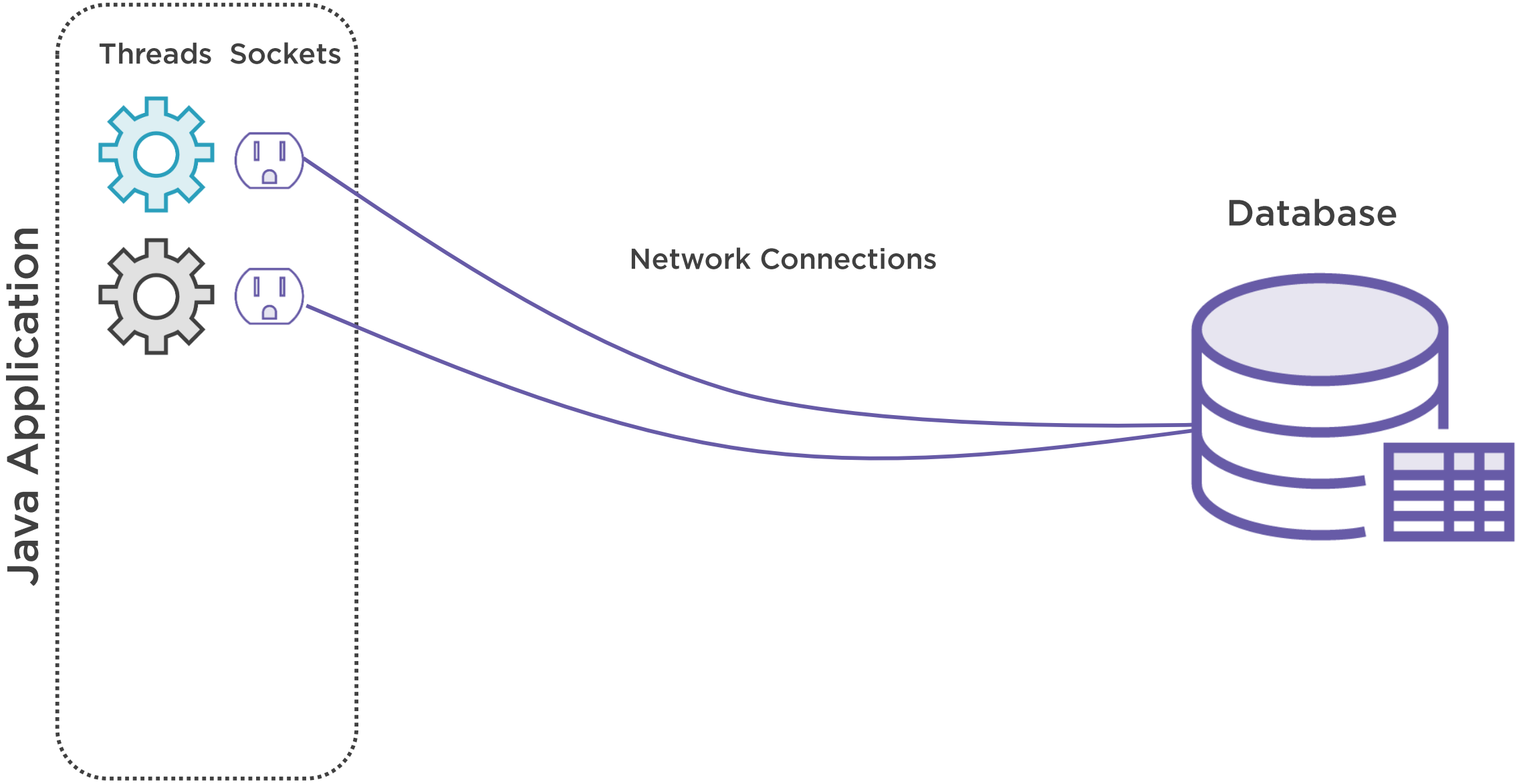

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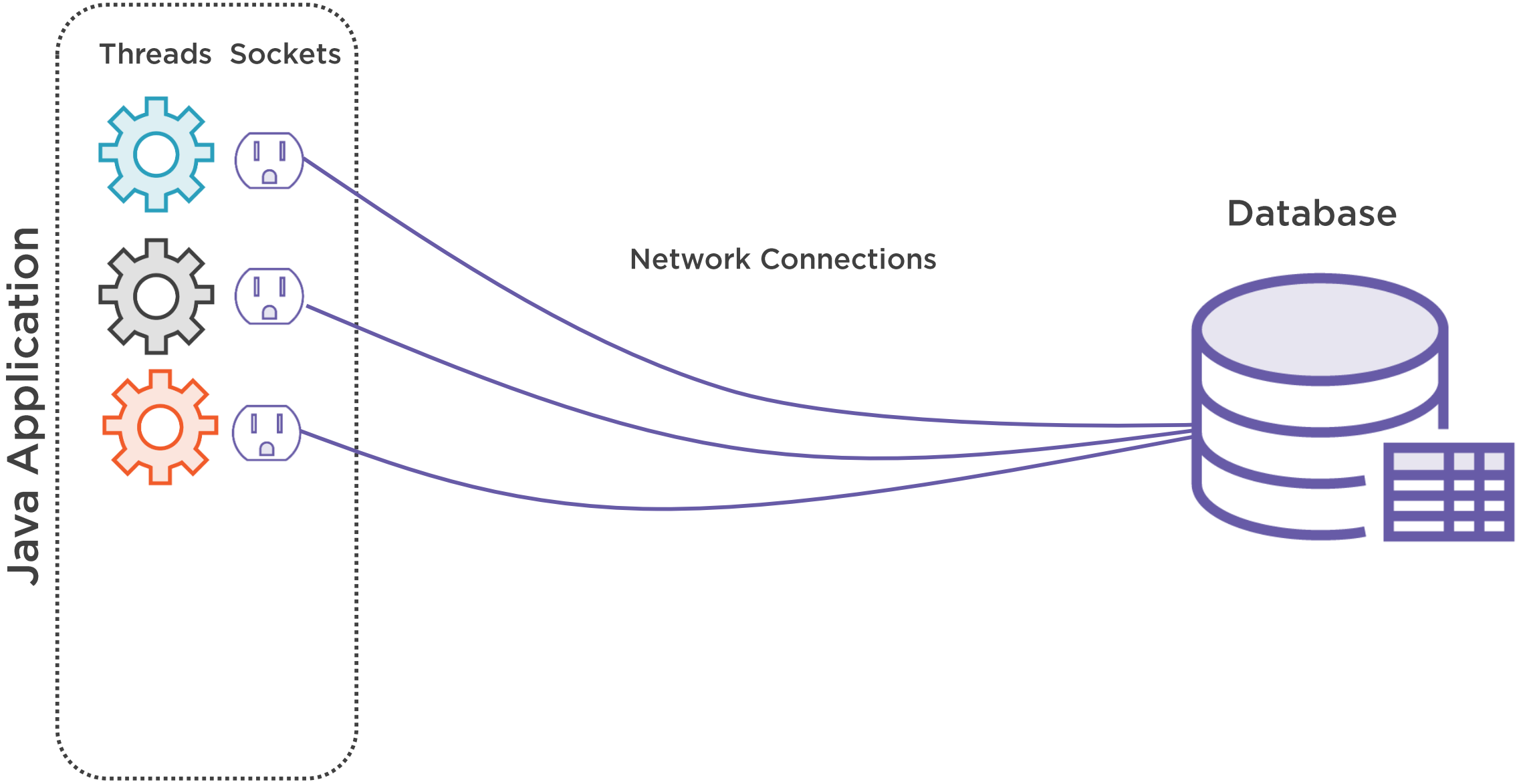

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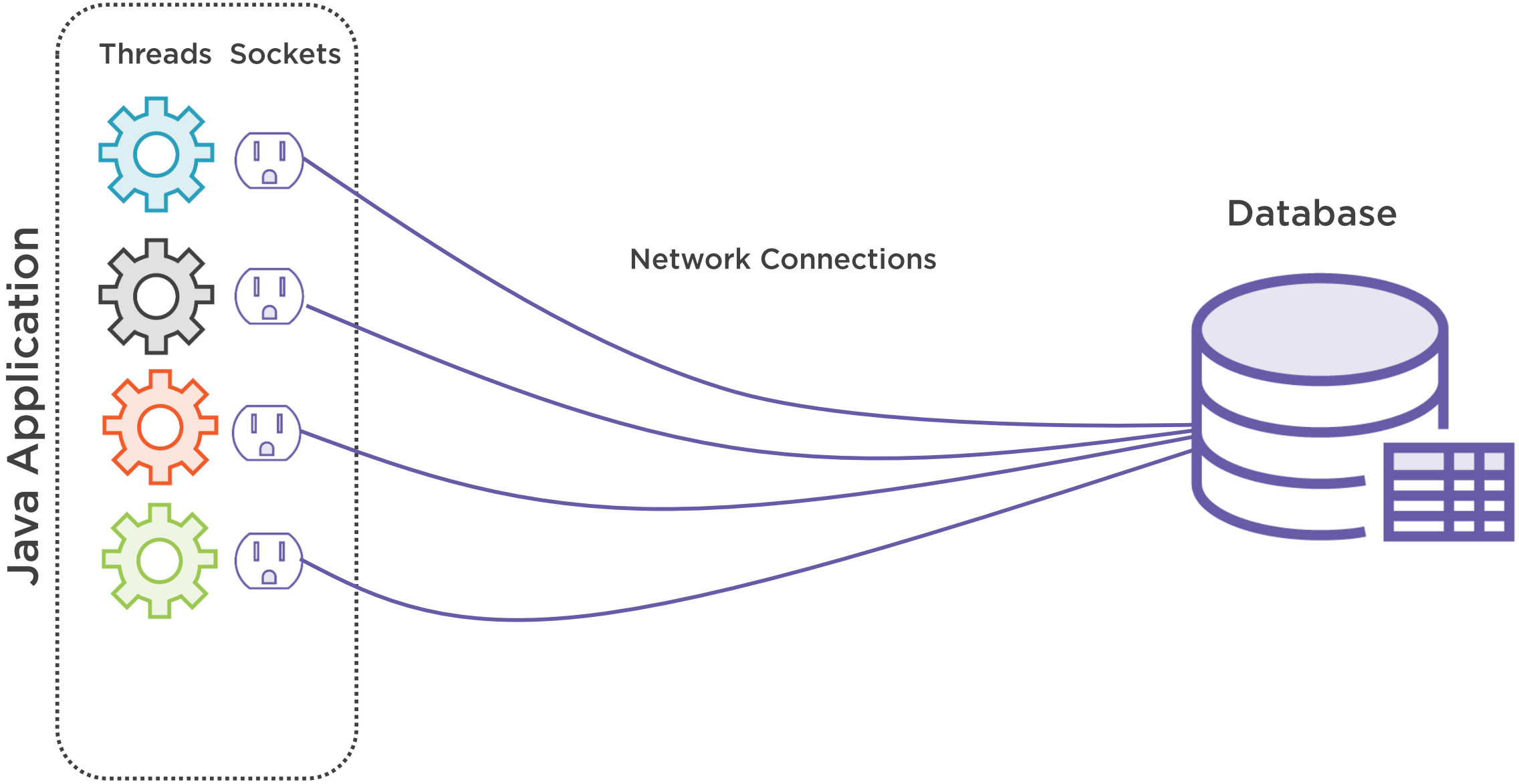

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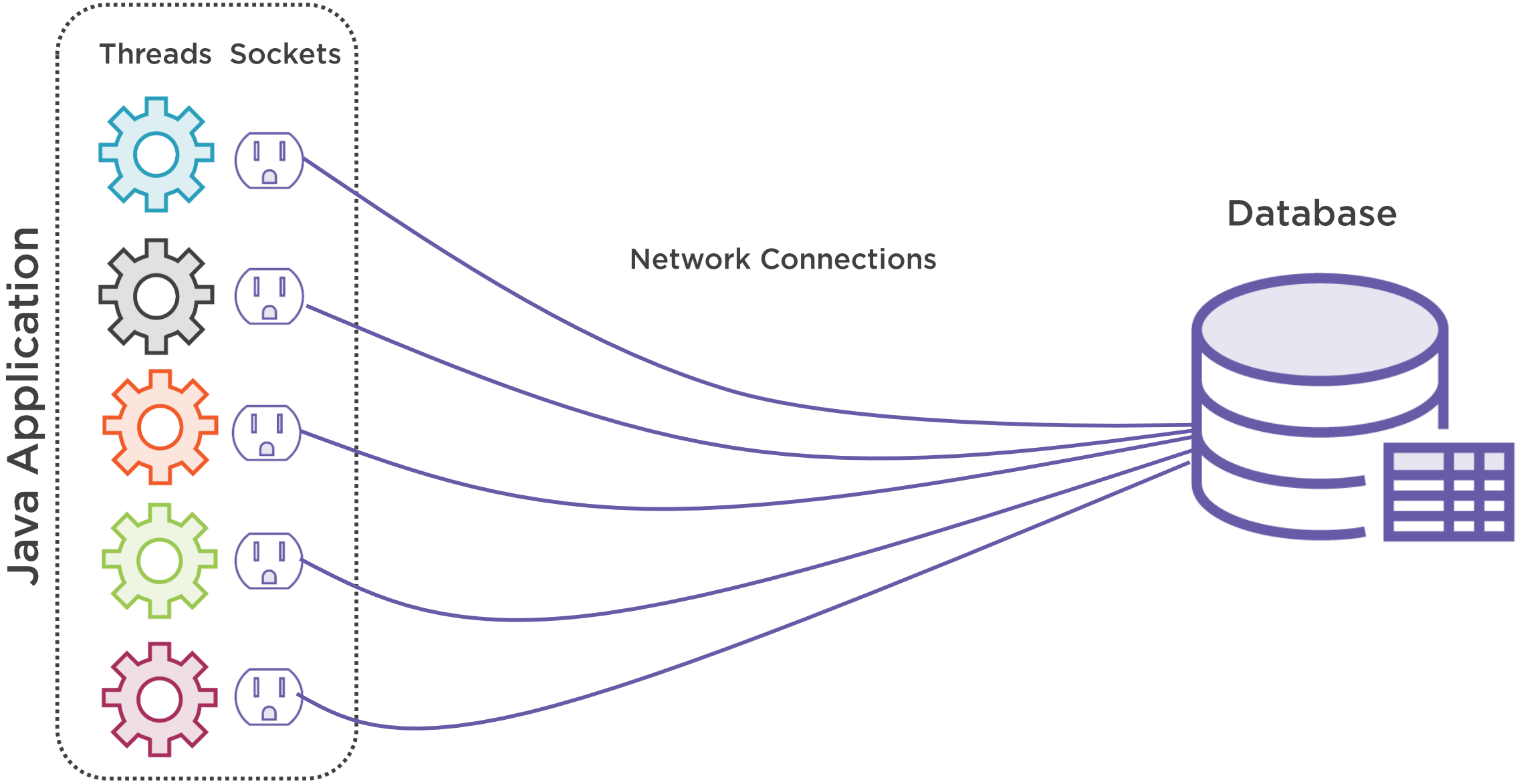

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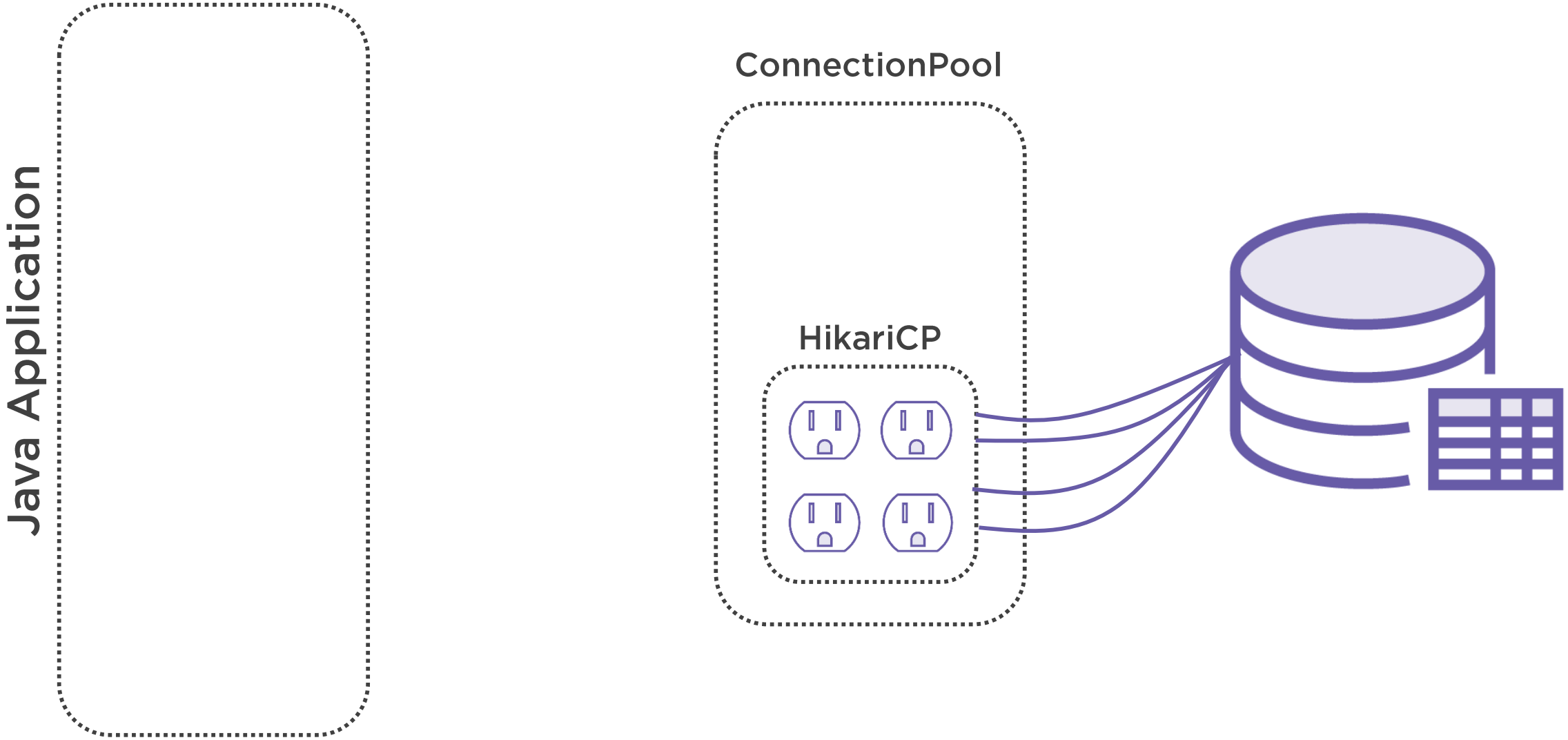

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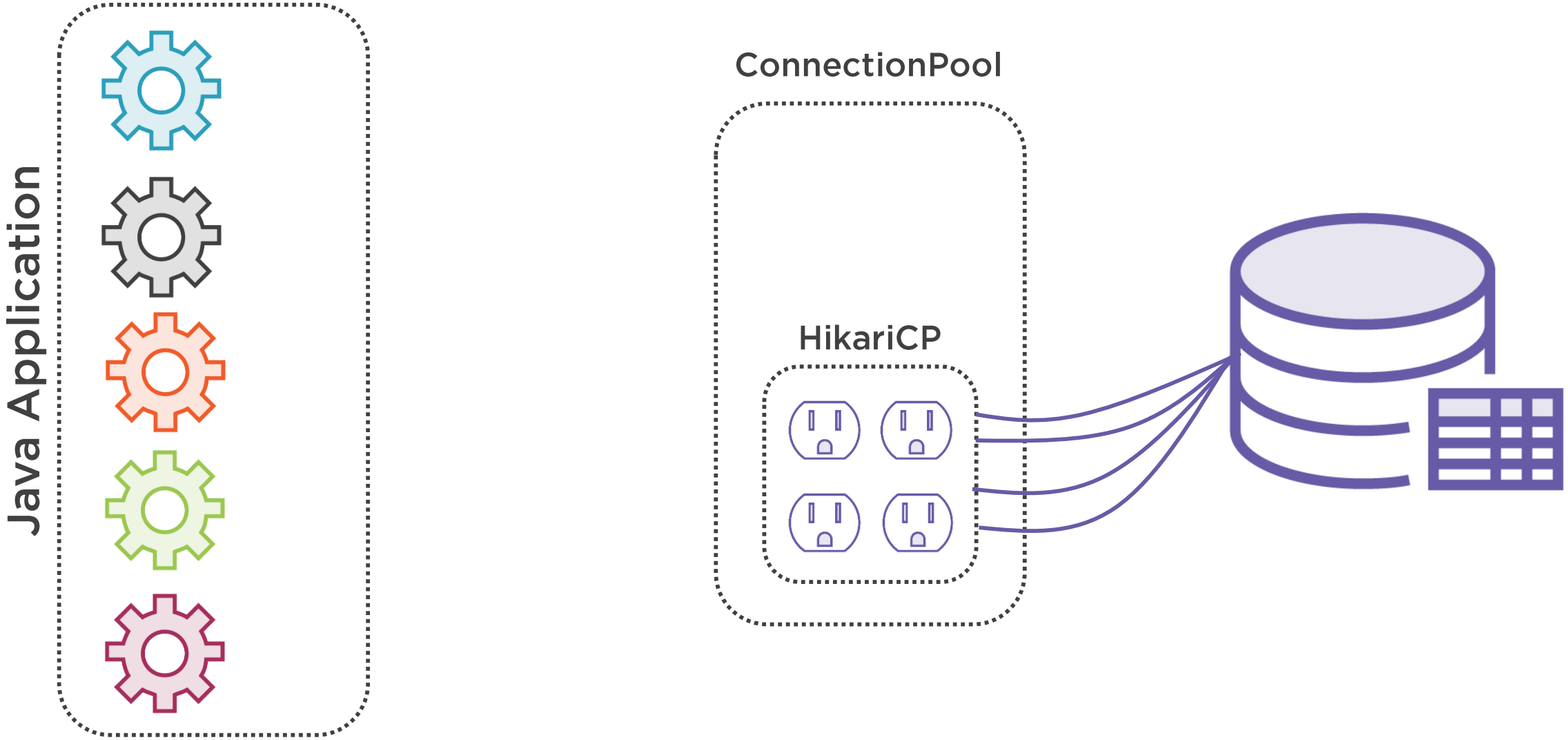

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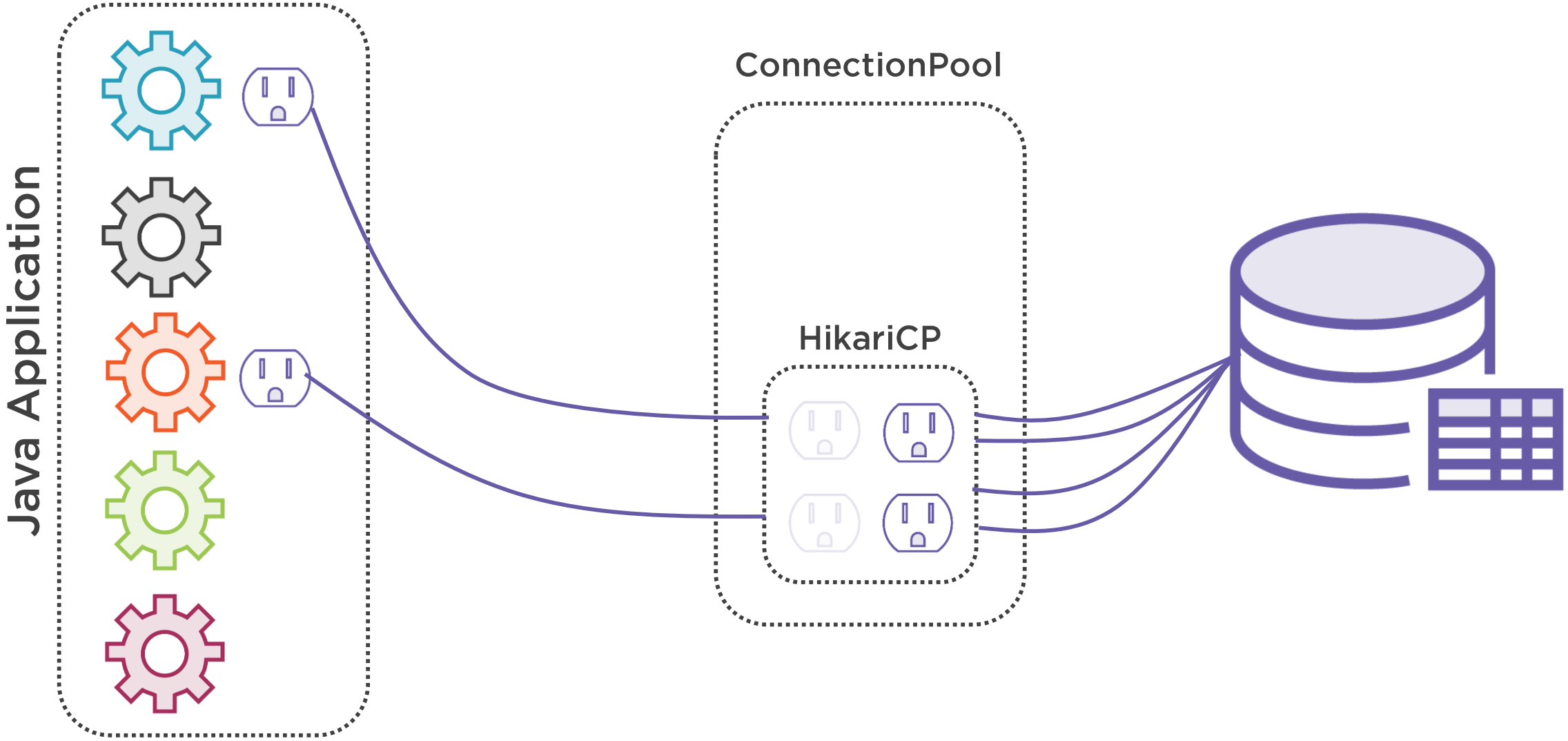

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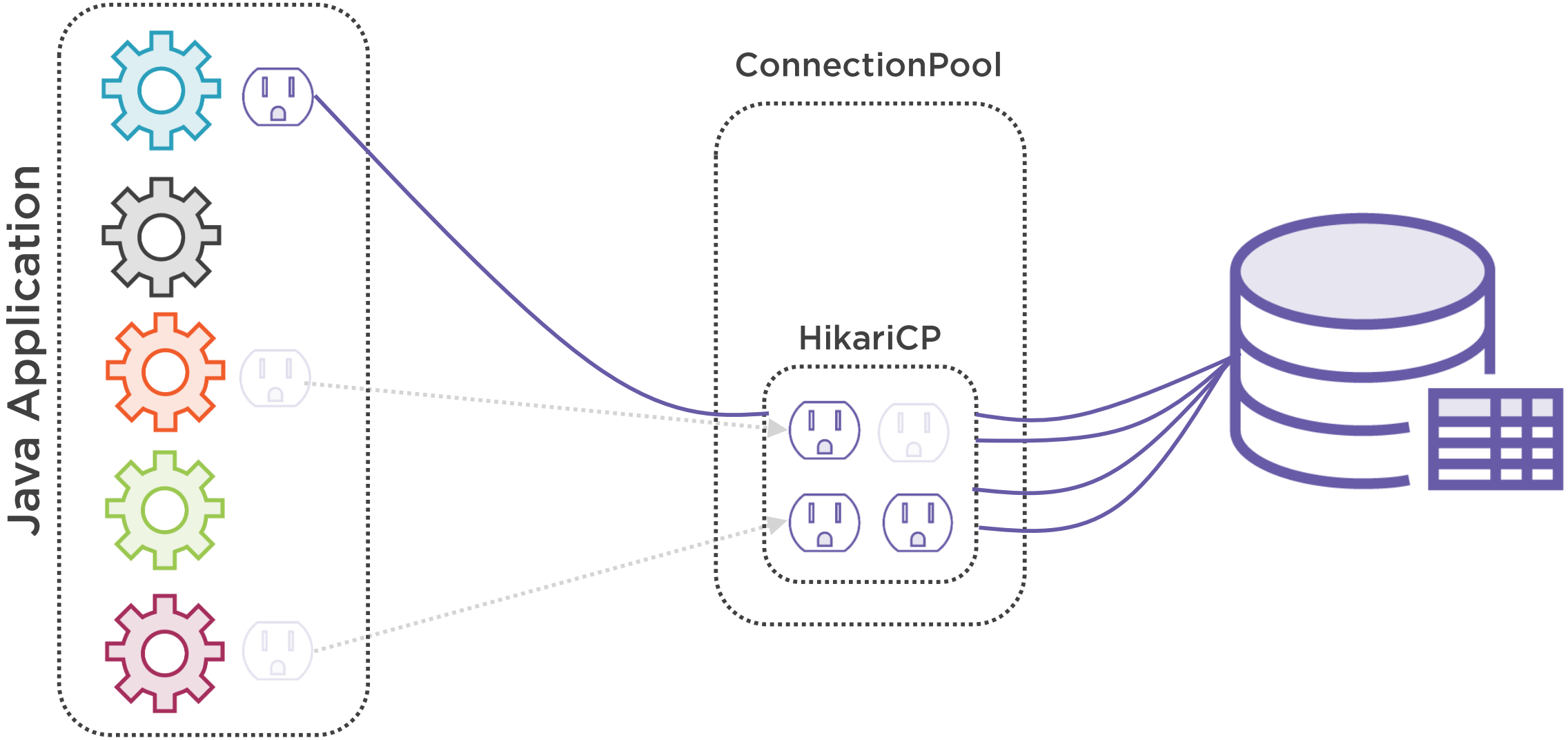

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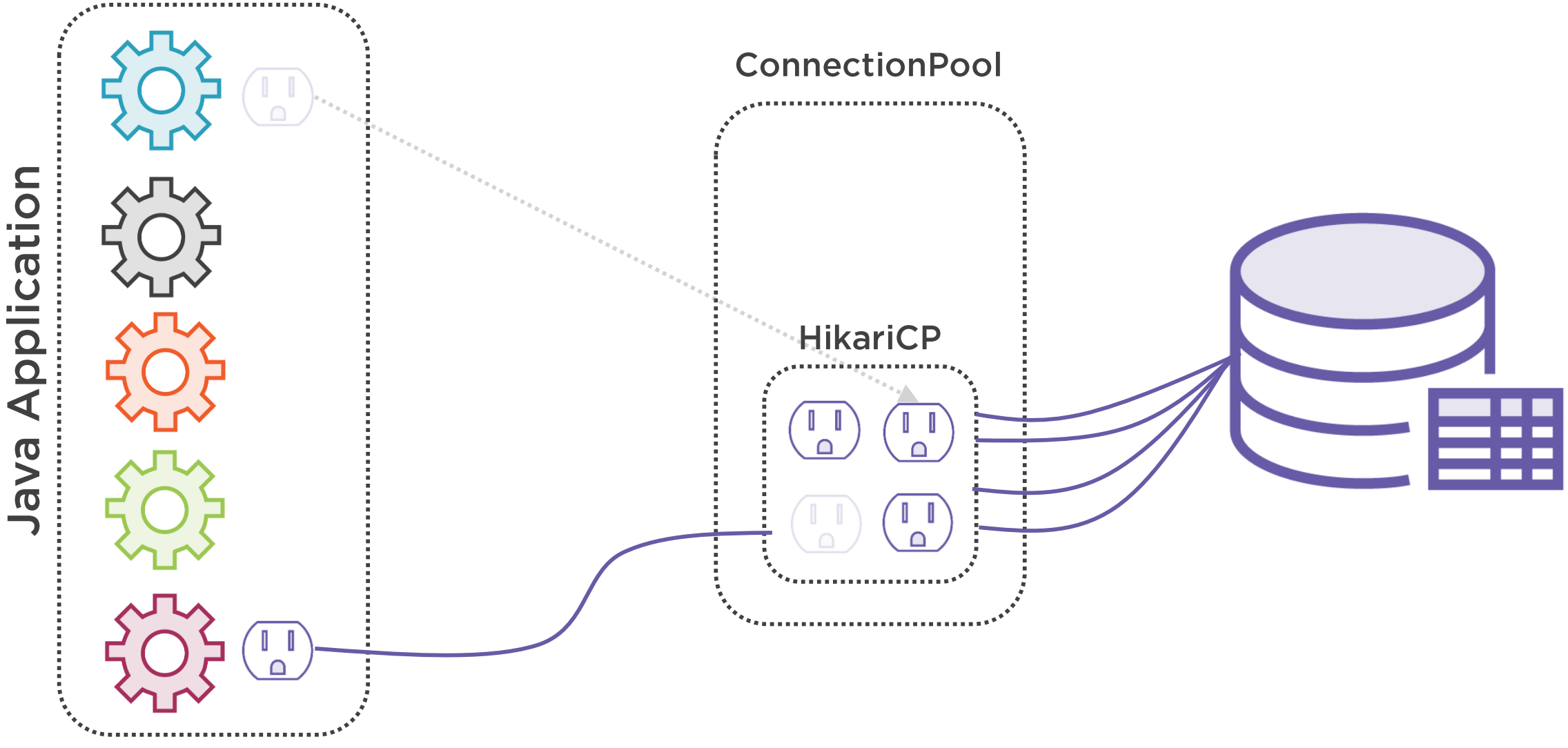

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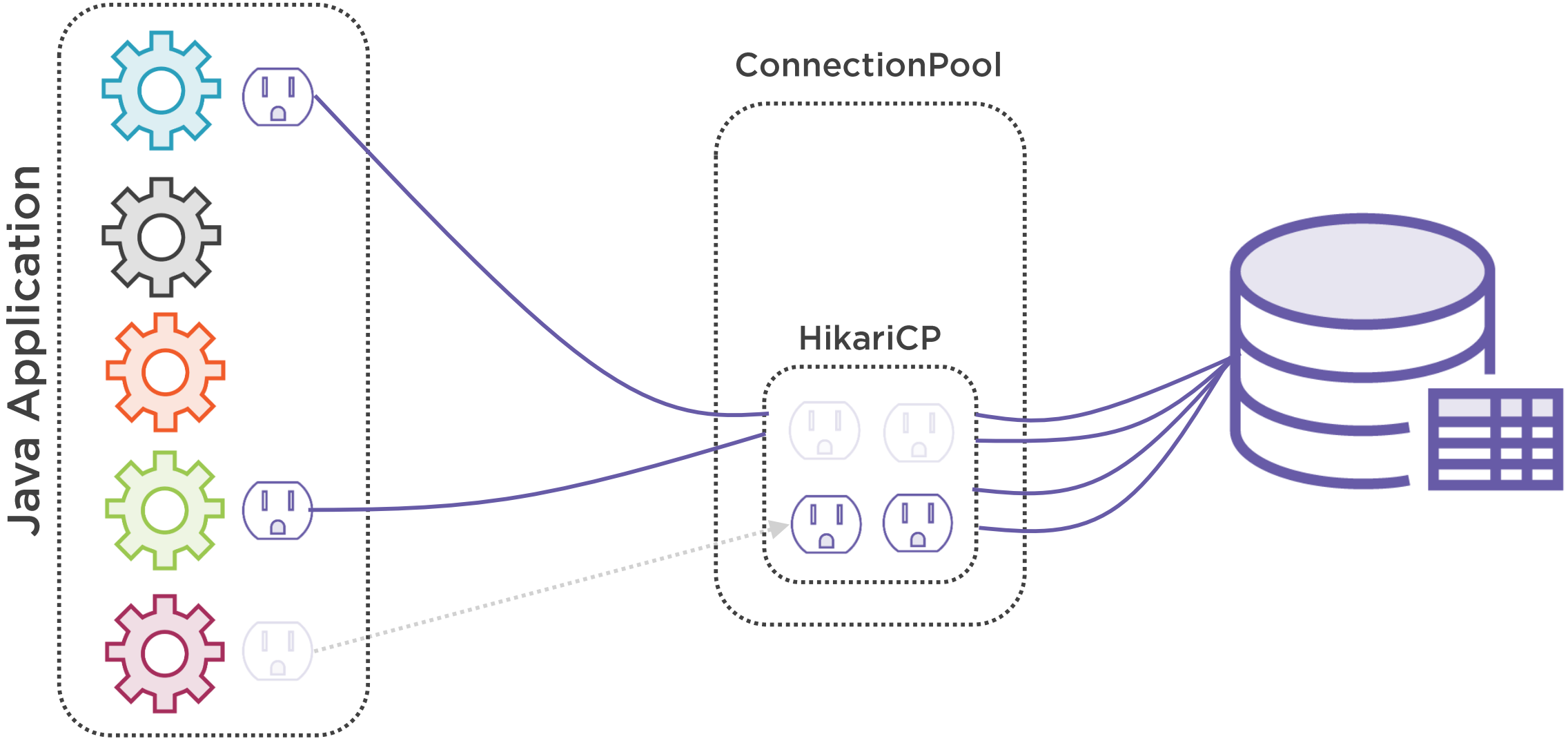

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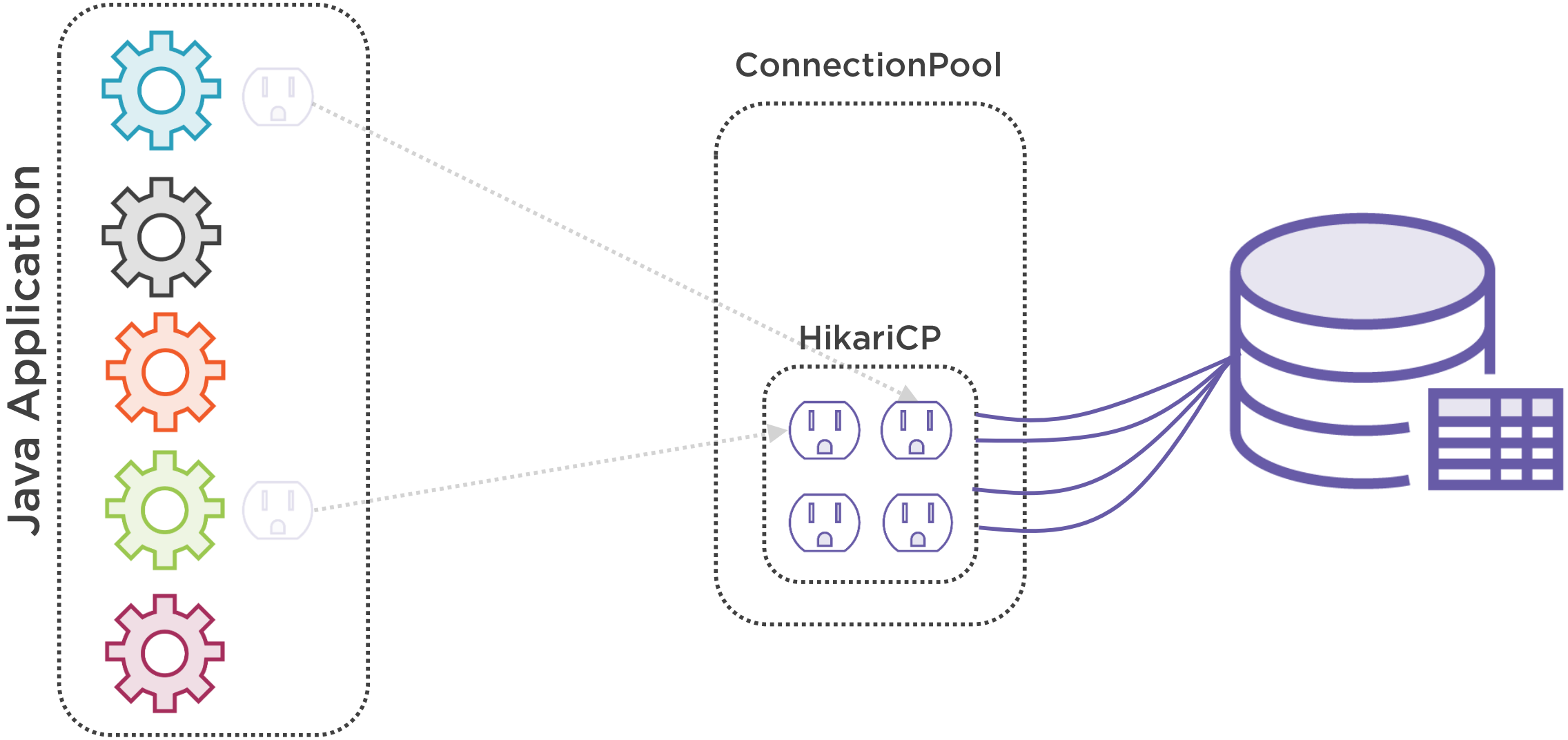

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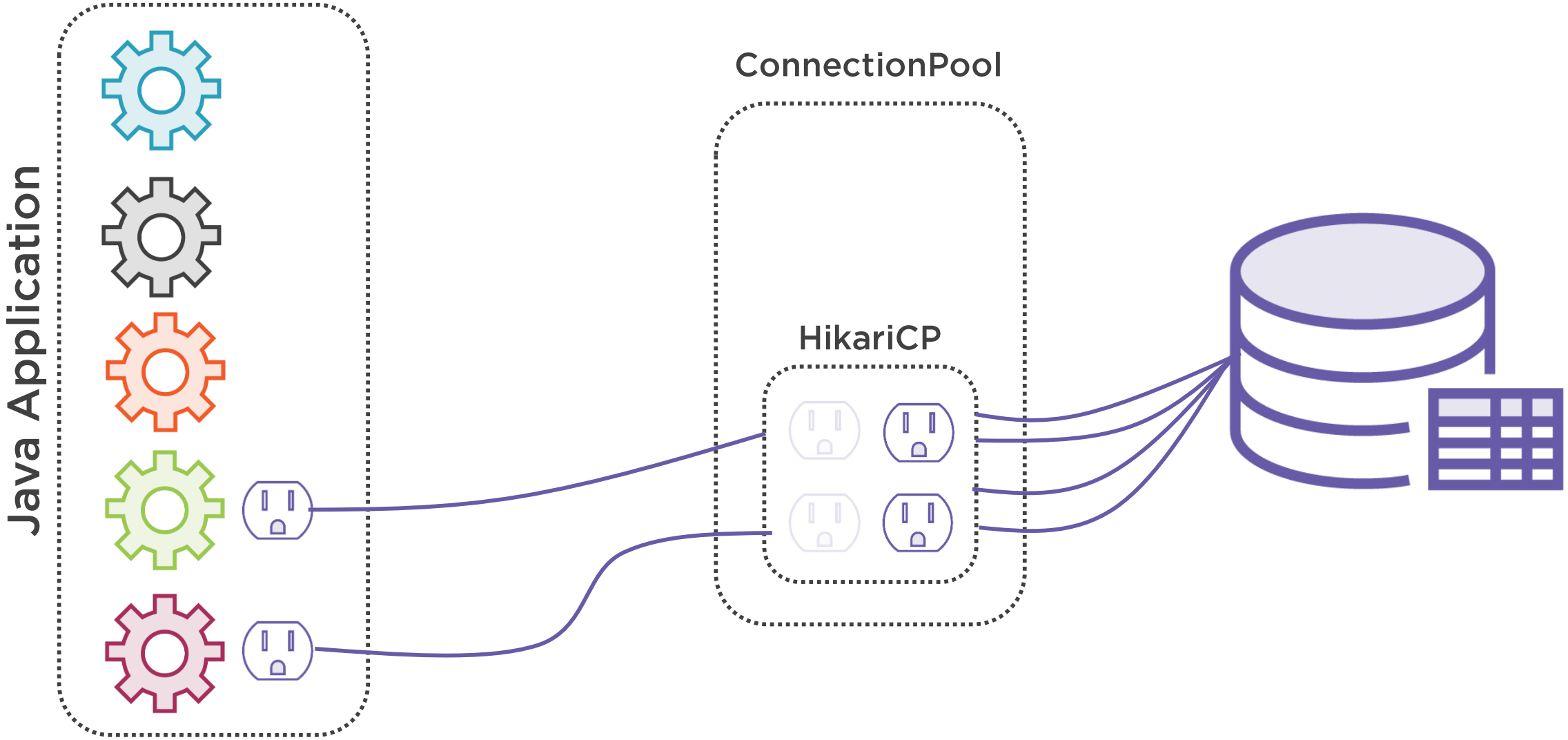

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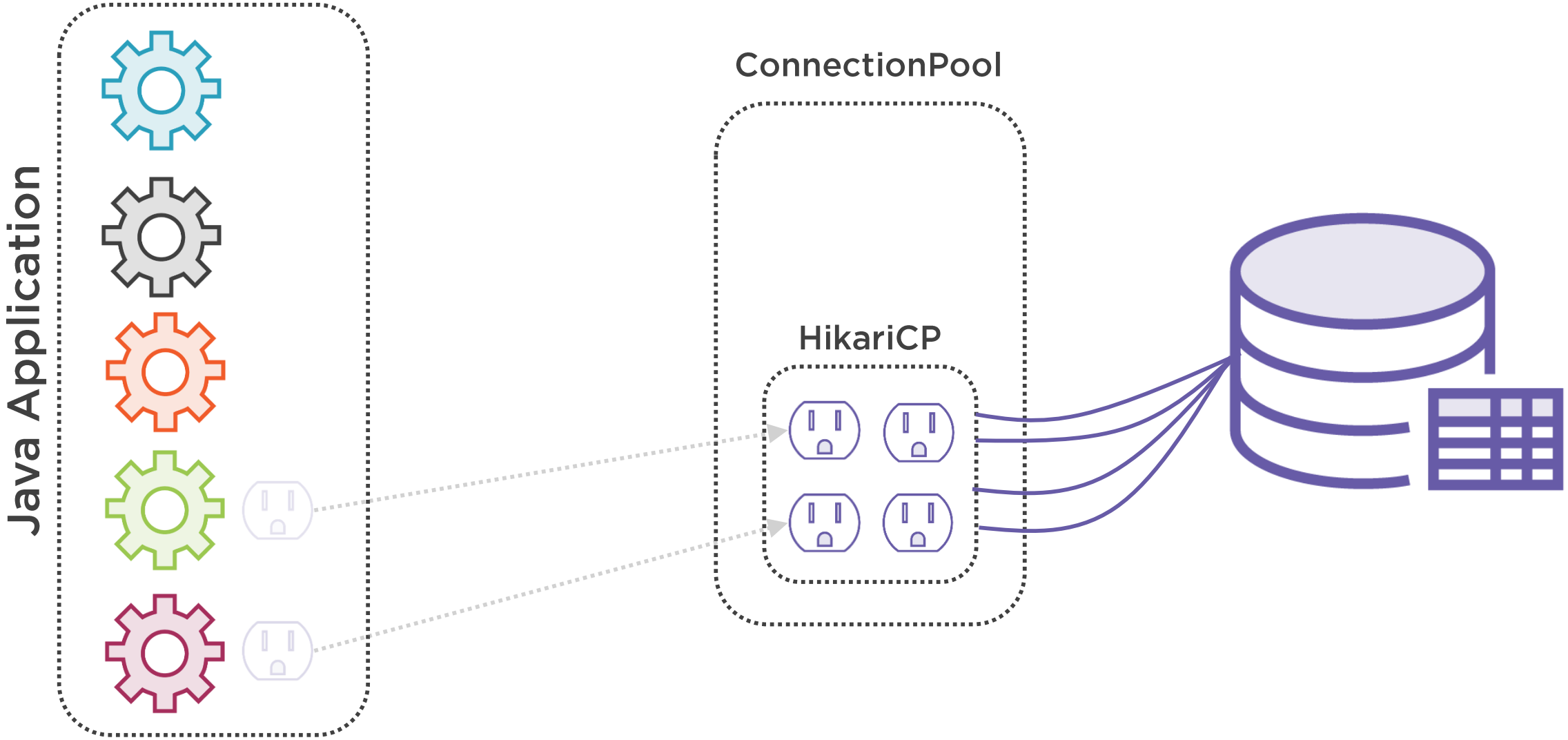

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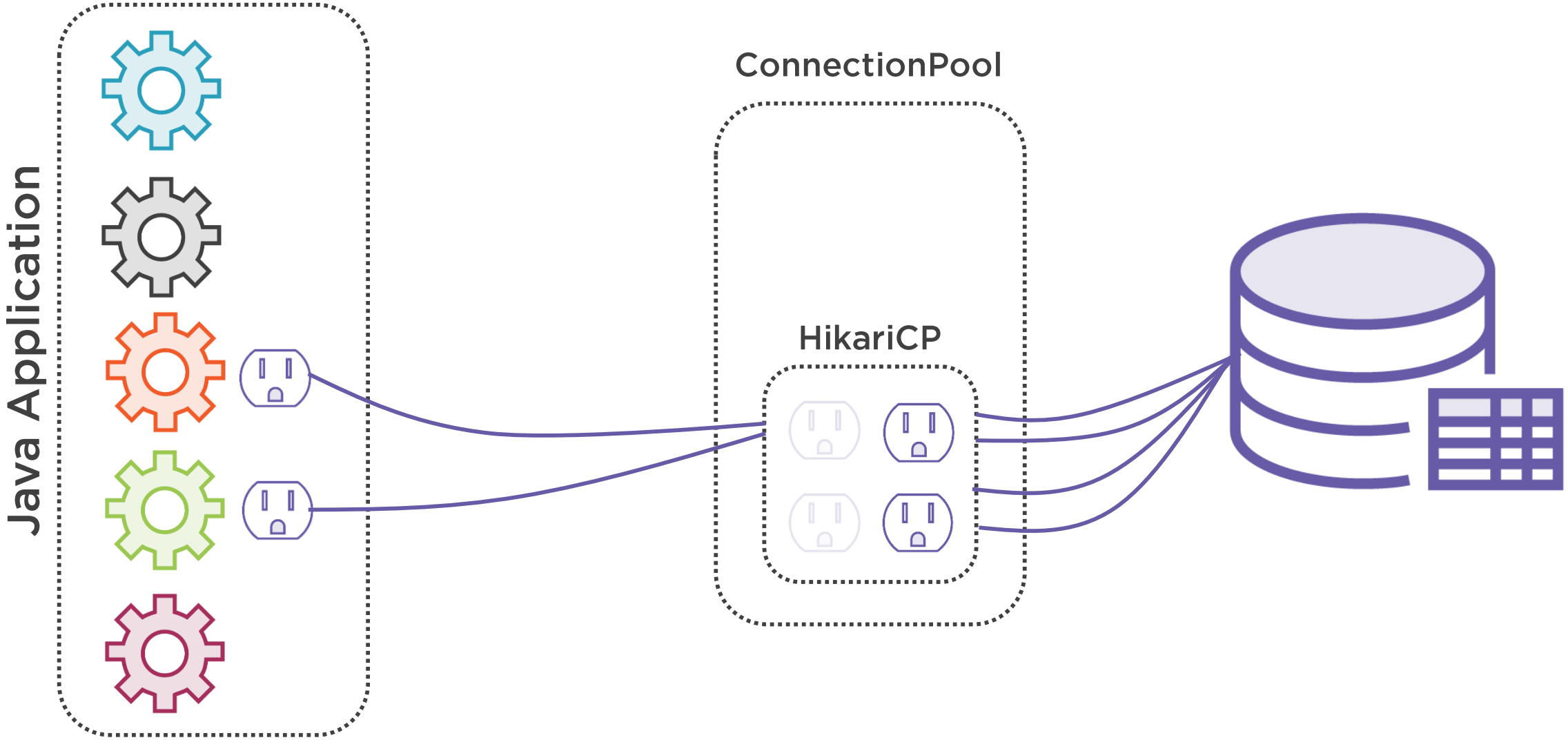

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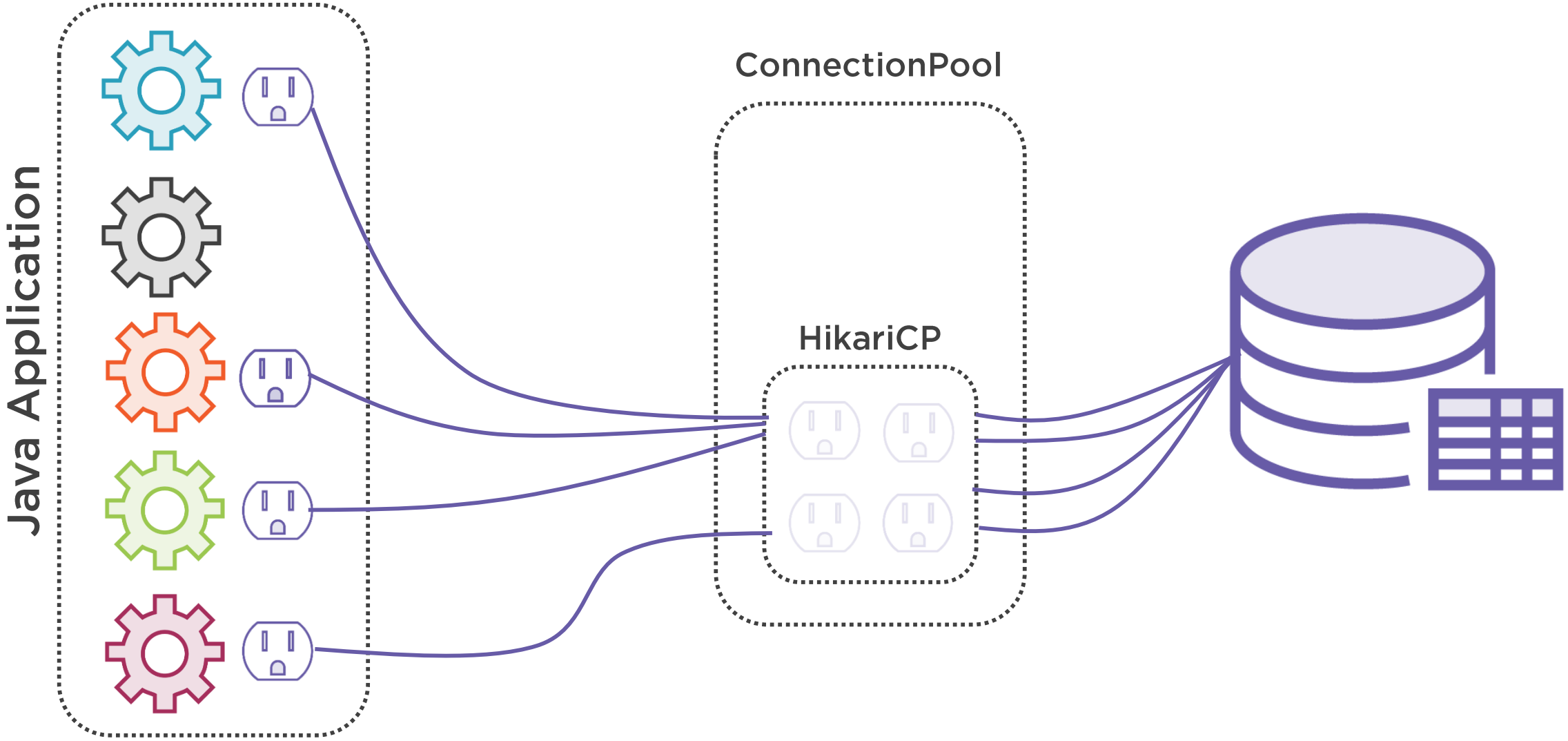

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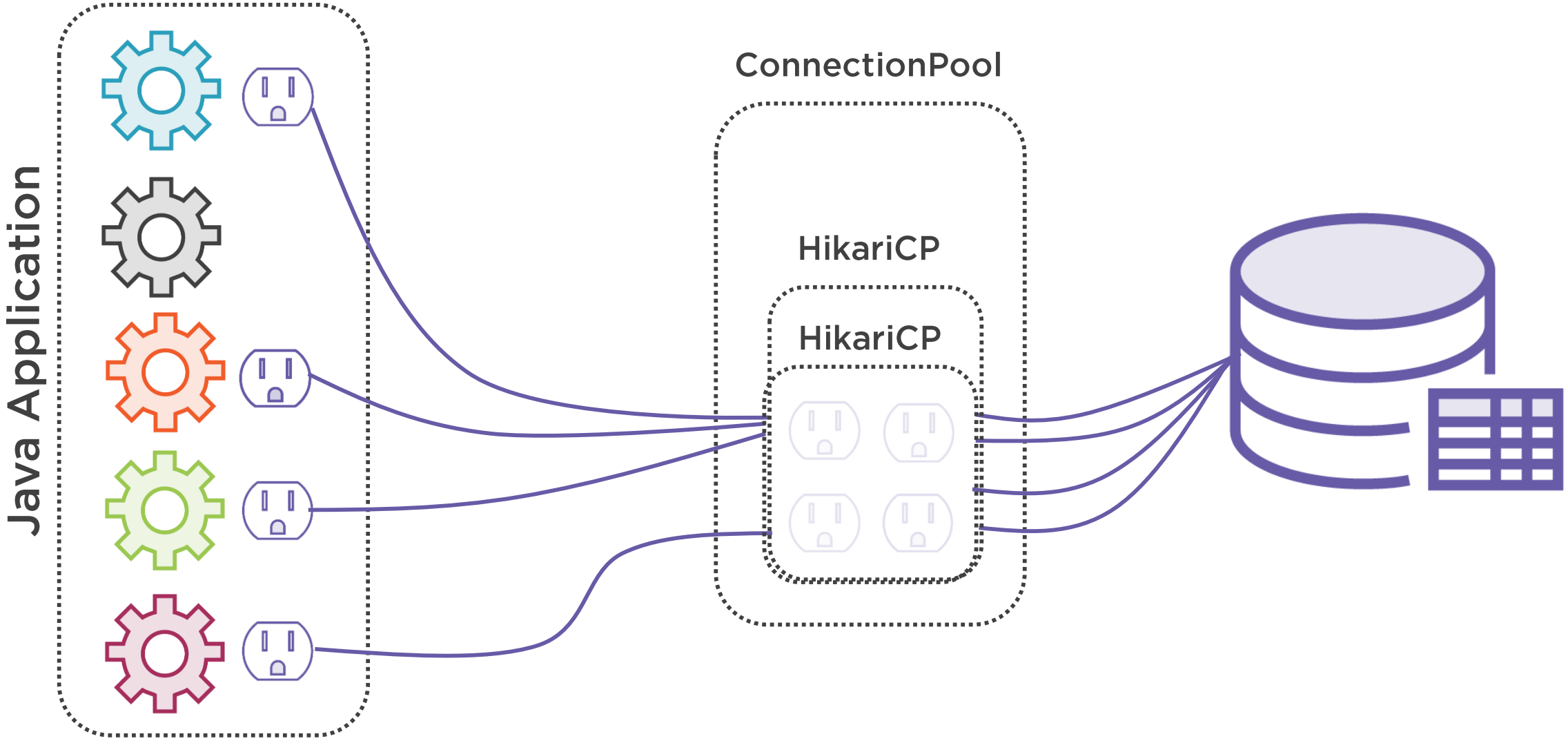

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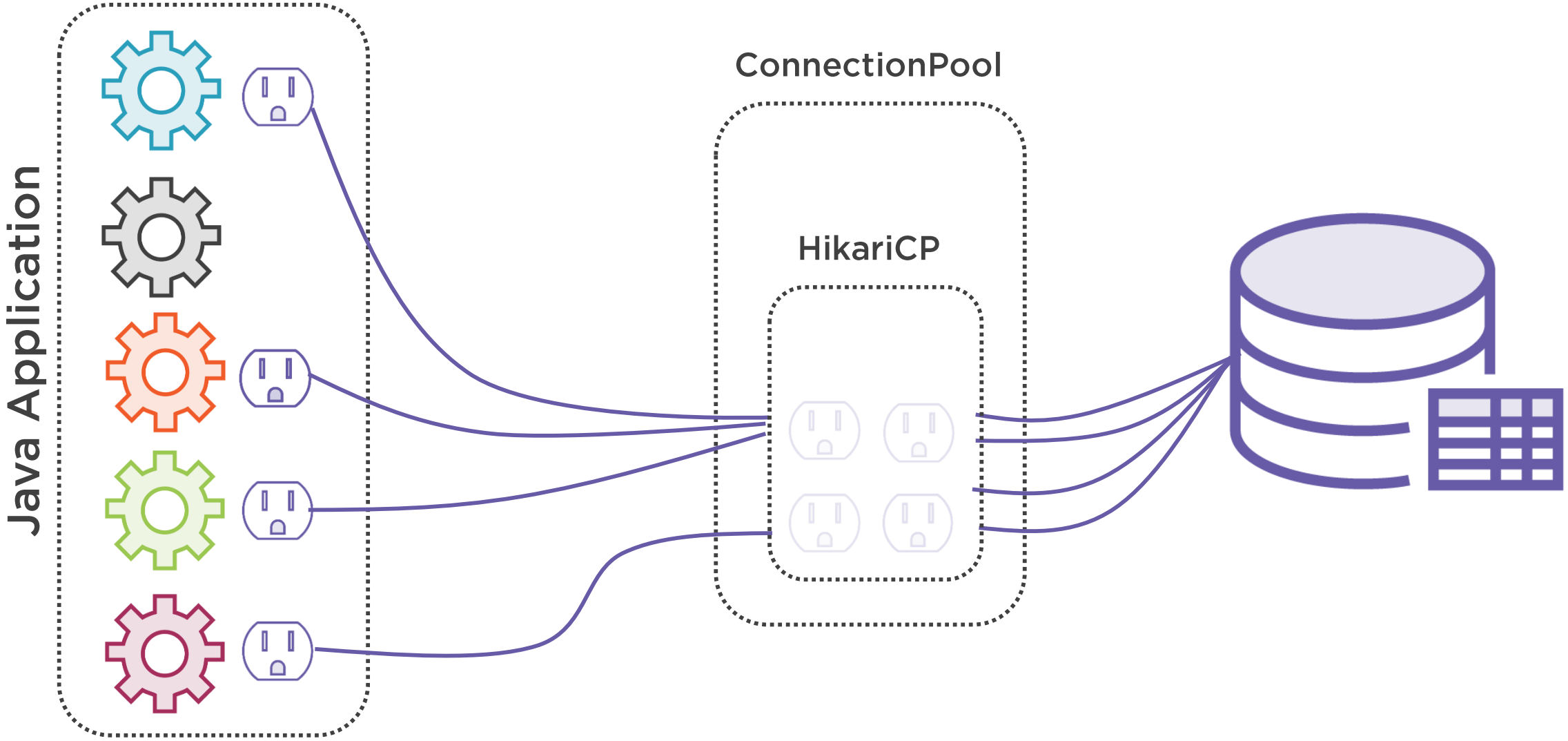

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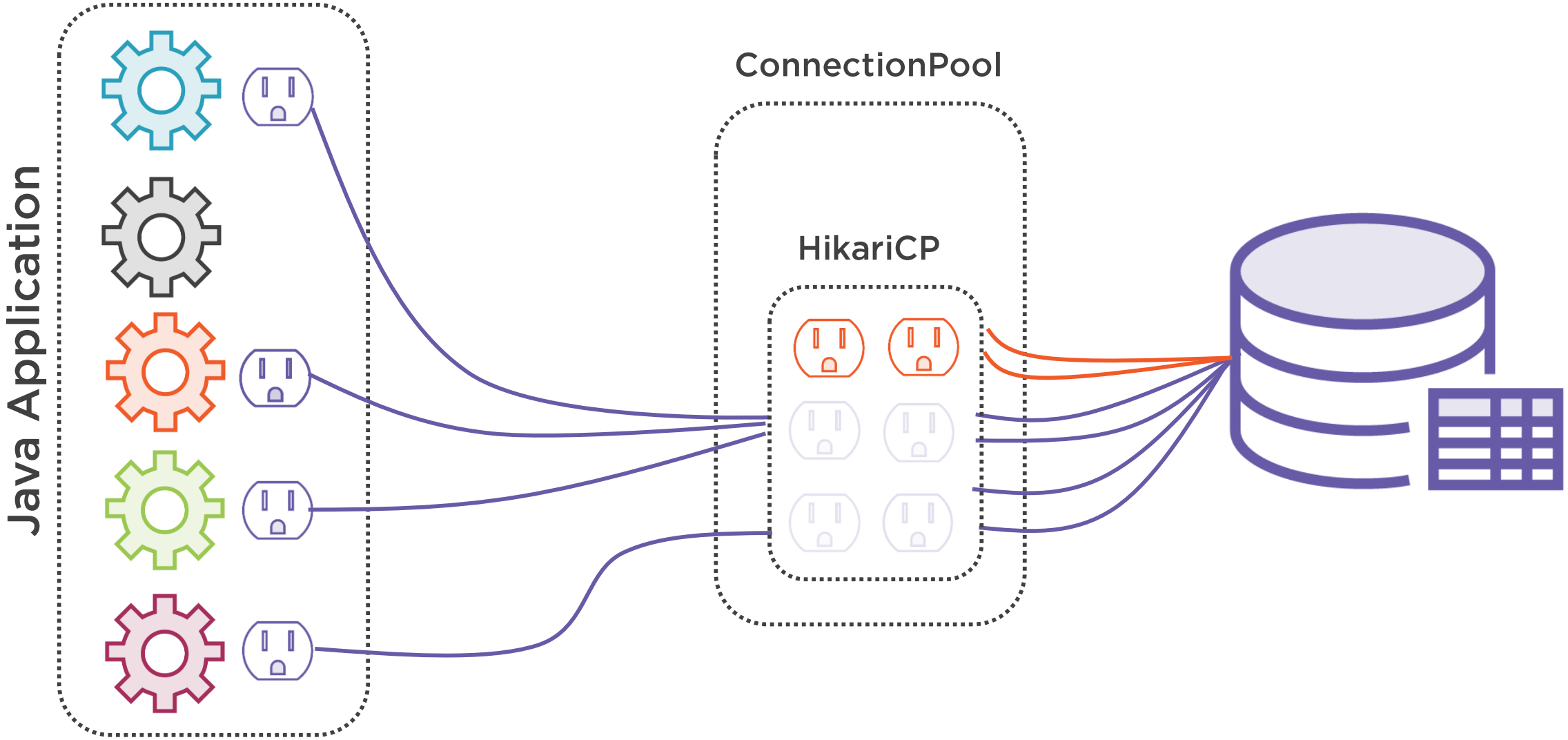

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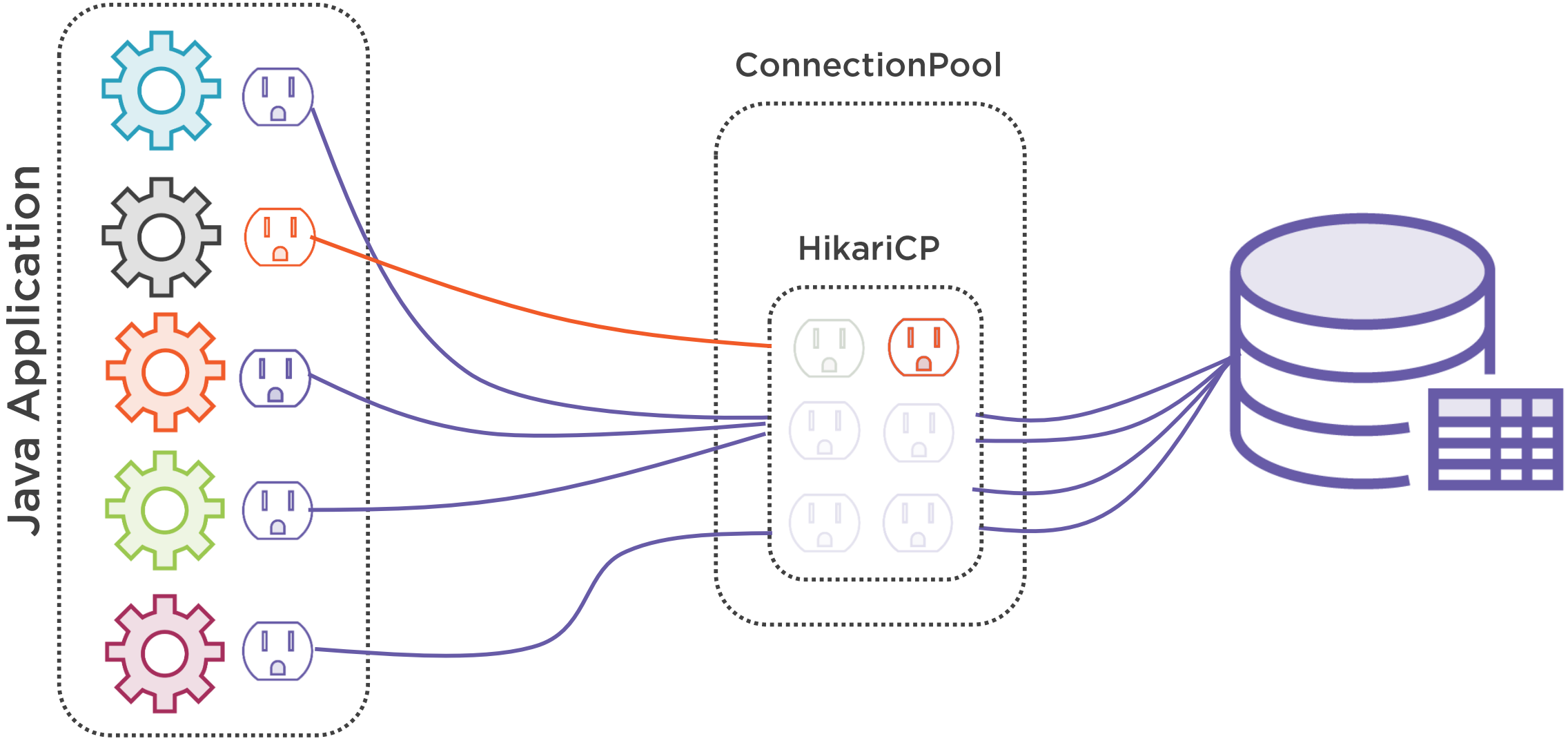
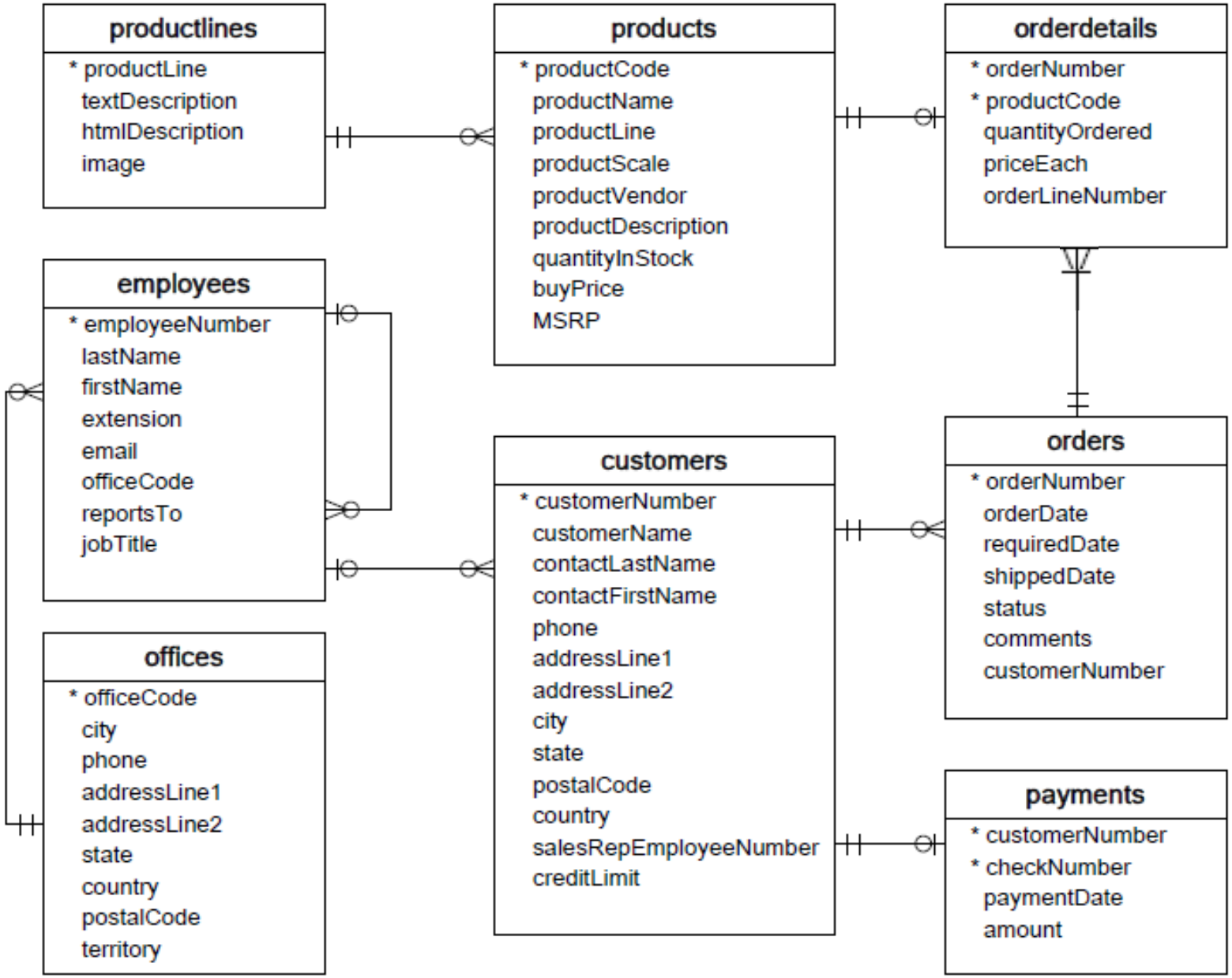


JDBC Transactions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textDescription
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productVendor
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* productCode
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* employeeNumber
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firstName
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email
officeCode
reportsTo
jobTitle
customers
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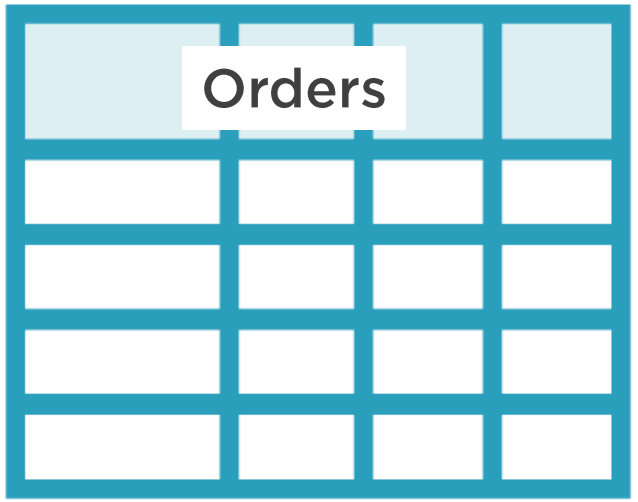
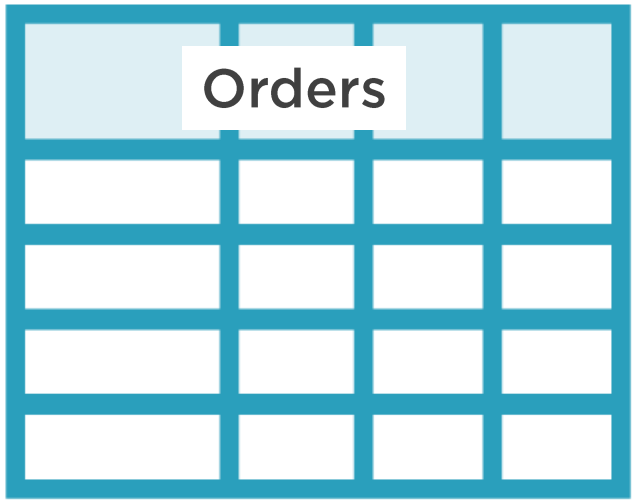
JDBC Auto Commit



INSERT INTO orders ( ) values ( )

INSERT INTO orderDetails ( ) values ( )

JDBC Auto Commit



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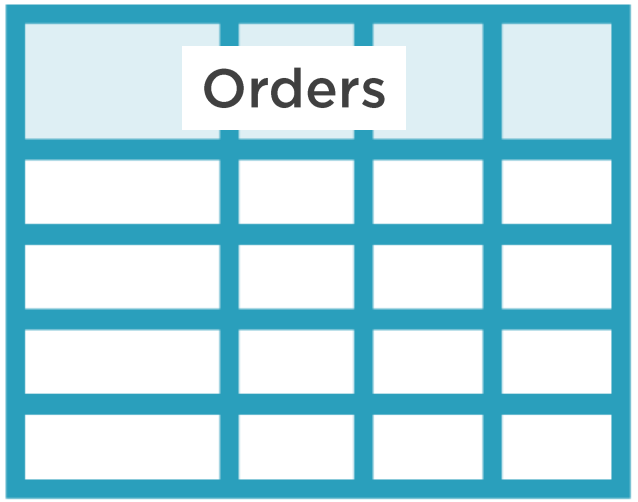

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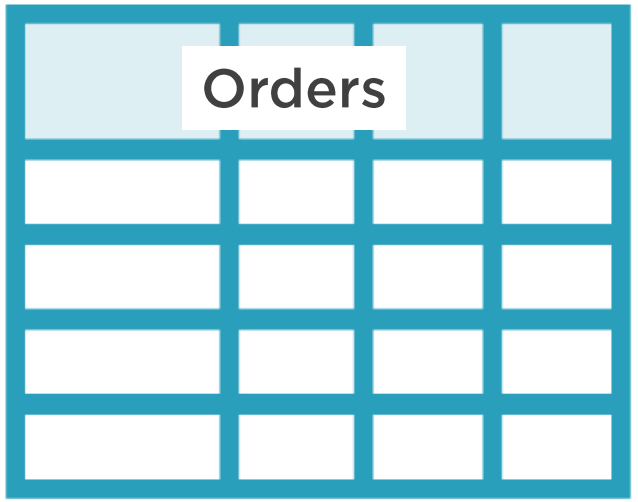

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JDBC RowSets

Overview

RowSet is an extension of JDBC ResultSet

RowSet is Java beans compliant & toolable

RowSet can be used when disconnected from the database

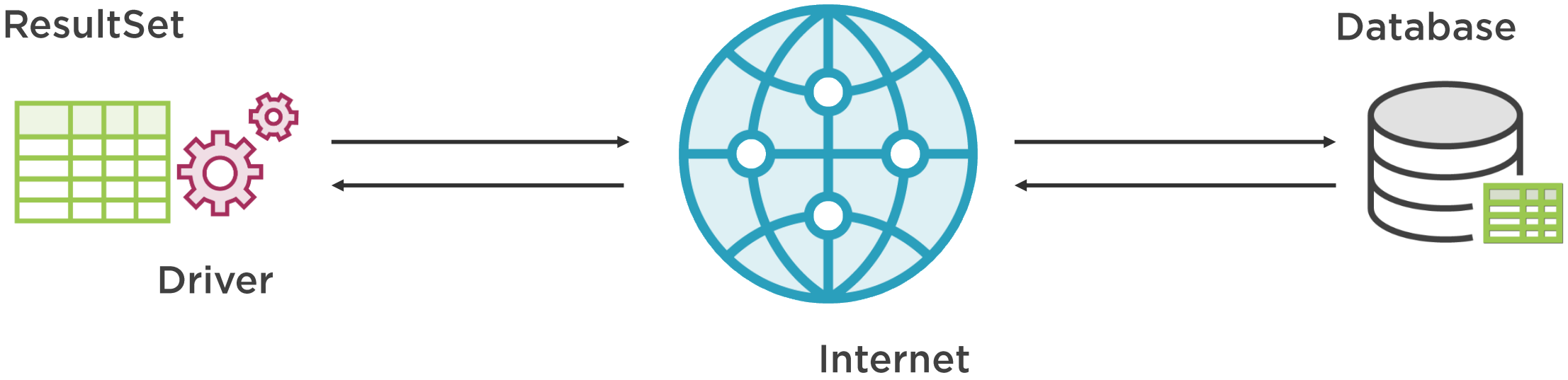
Demo

RowSet is an extension of JDBC ResultSet

RowSet is Java beans compliant & toolable

RowSet can be used when disconnected from the database

Connected vs. Disconnected



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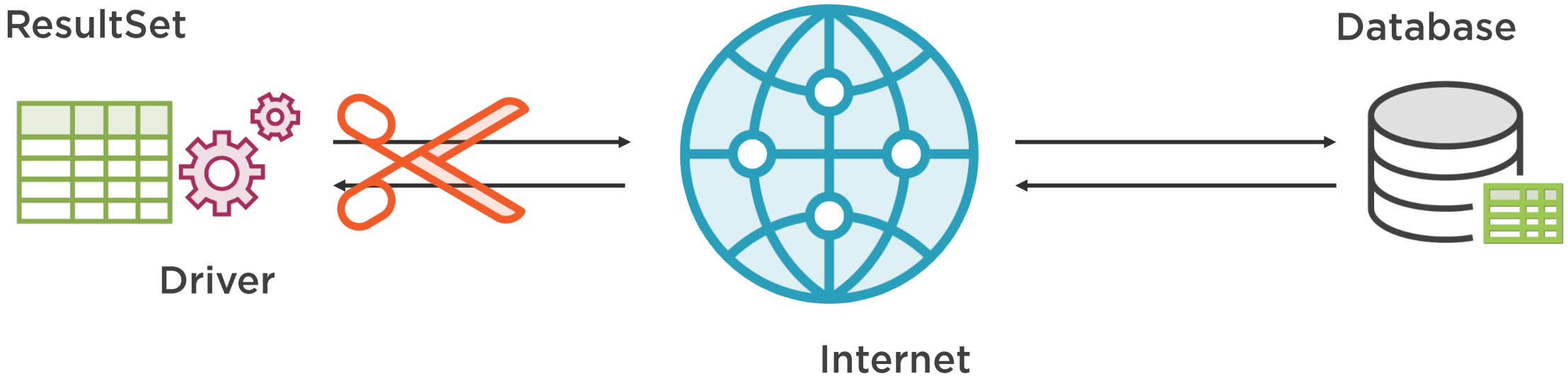

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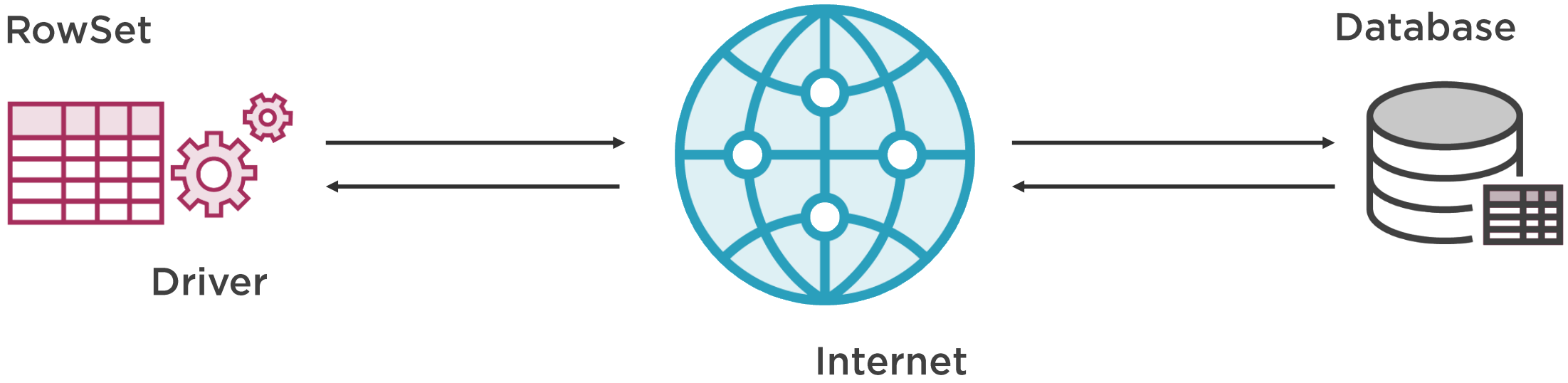

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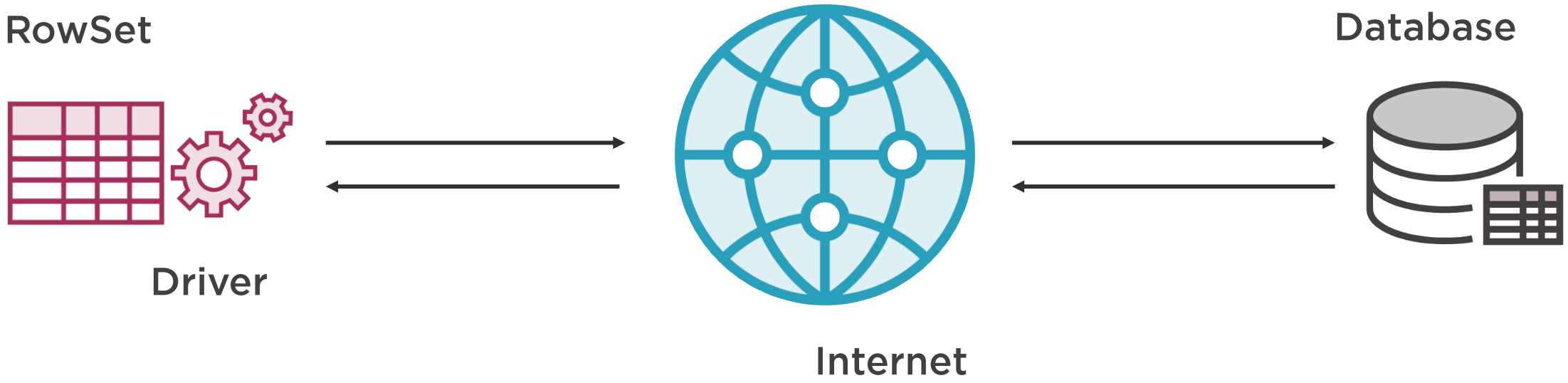

JDBC RowSet Types

JdbcRowSet

Remains connected

Alternative API

CachedRowSet

Is disconnected

WebRowSet

Supports XML

Is disconnected

FilteredRowSet

Allows filtering

Is disconneted

JoinRowSet

Joins two RowSets

Is disconneted

CachedRowSet Pros and Cons

Pros	Cons
Less work for the relational database	May consume too much memory
Less network traffic	Data may be stale; not up to date
Serializable	
Faster	

Summary

Connection Pooling

- Application servers usually provide it
- Add when its not provided for you

Transactions

- Bind two or more JDBC operations together
- All succeed or fail together

RowSets

- CachedRowSets
- Can be serialized and passed around
- Reduces traffic to database
- Use only if data is static and small

Course Summary

Most enterprises use SQL-based relational databases

Java is the most popular programming language today

JDBC is the Java API for access relational databases

What you learned in this course:

- Connecting JDBC driver to a database
- Database queries and updates with JDBC
- Advanced JDBC features

Java Core Libraries: JDBC

FINAL WORDS

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