

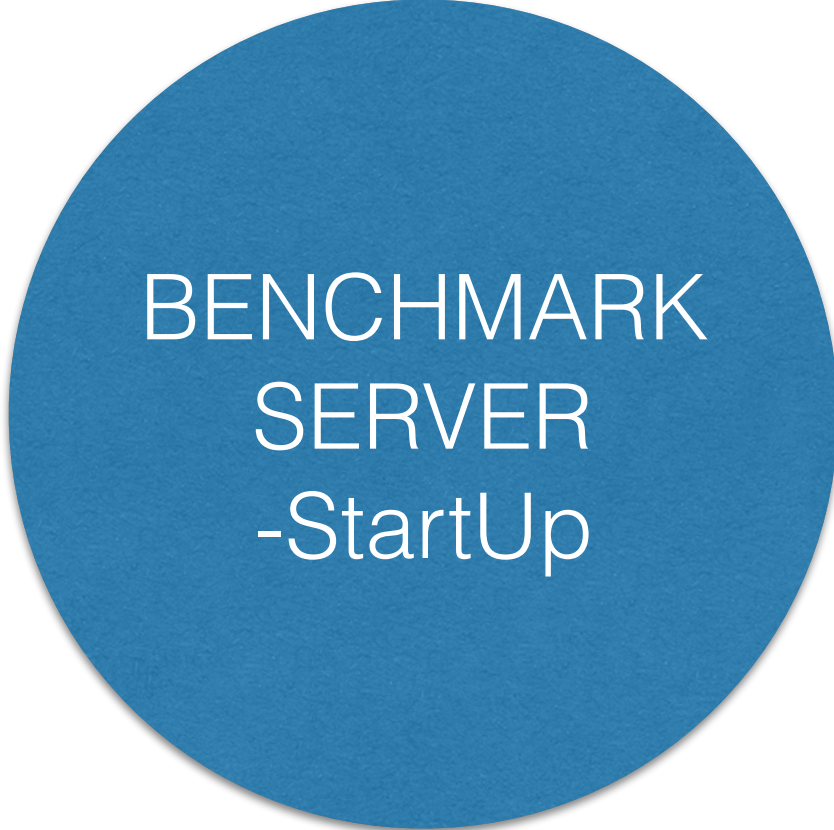
Introducing Benchmark Project

ctsai@Datalab
Cloud Database
2017 Spring

Two Main Methods

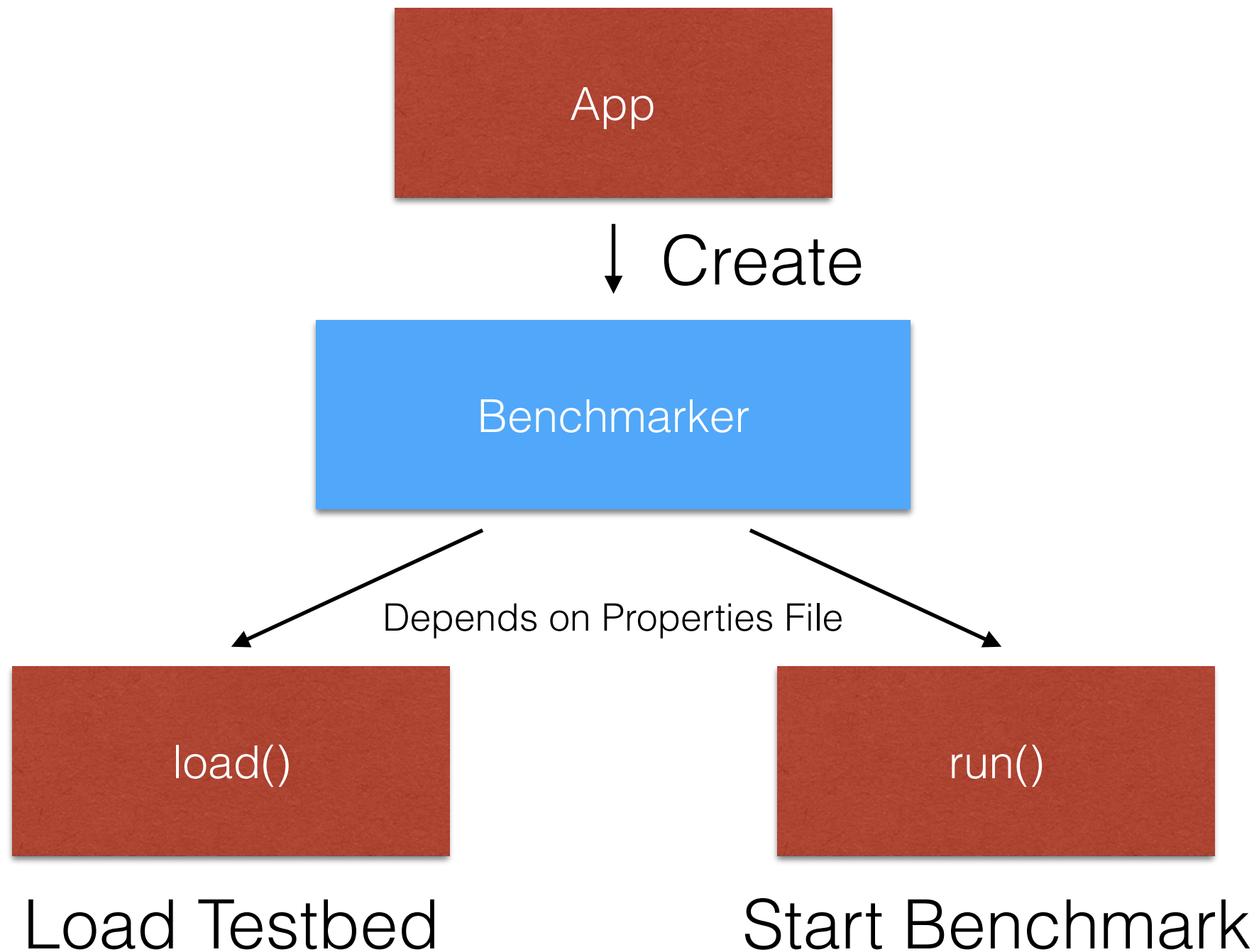


BENCHMARK
CLIENT
-App



BENCHMARK
SERVER
-StartUp

Start a Client



Loading Testbed

load()

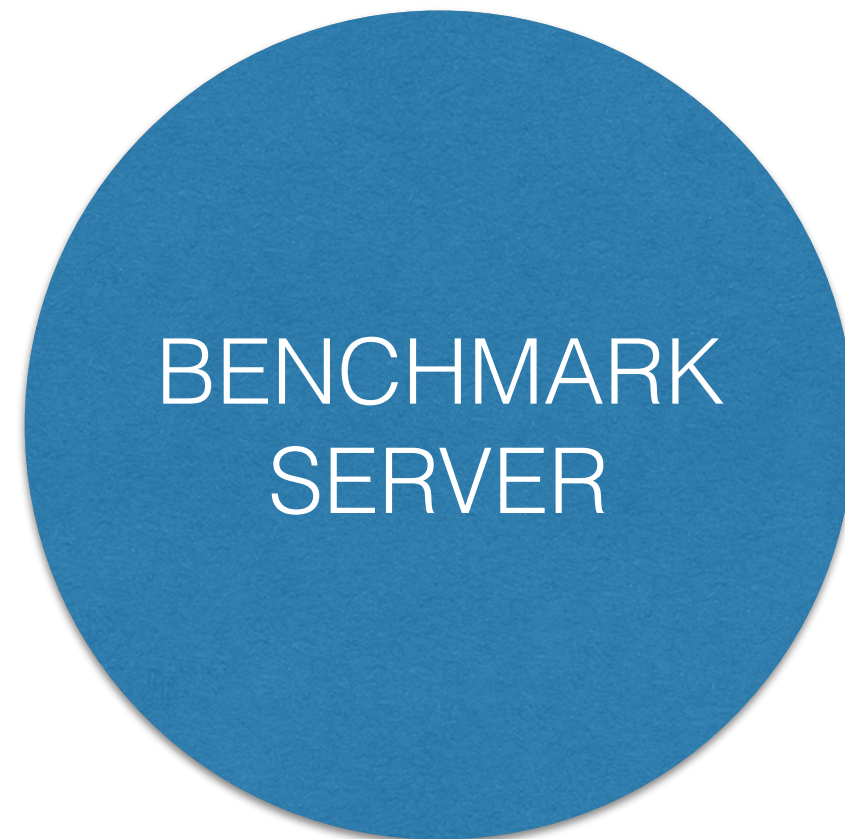
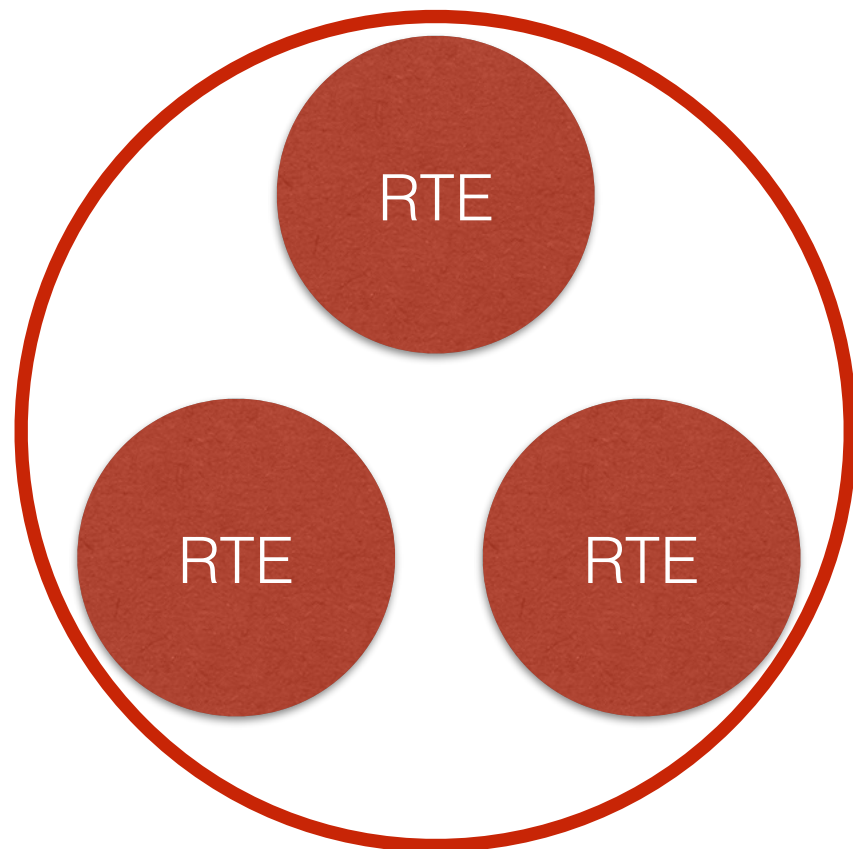


Connect to server and execute two stored procedures:

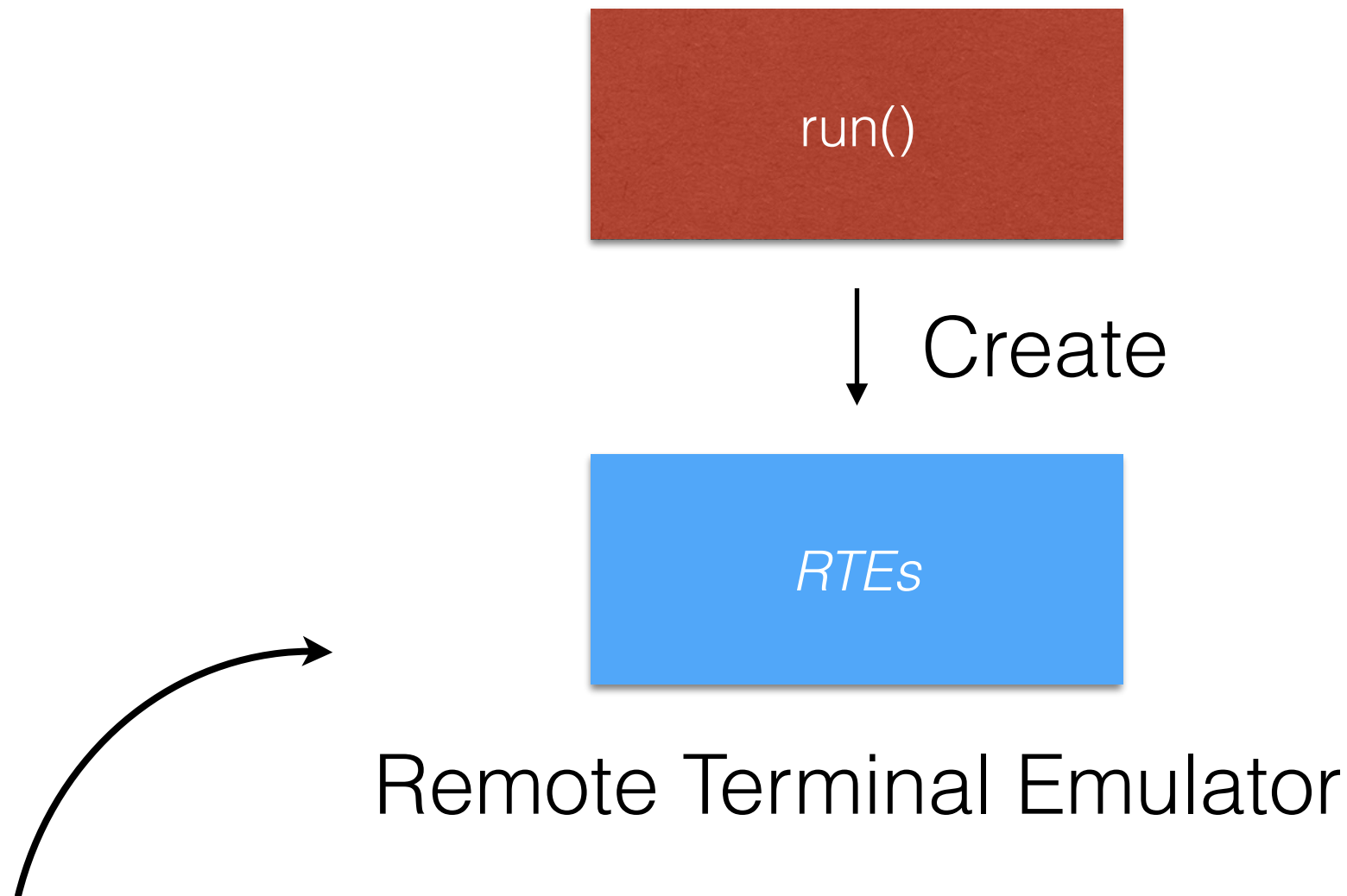
SchemaBuilder

TestbedLoader

Server & Client

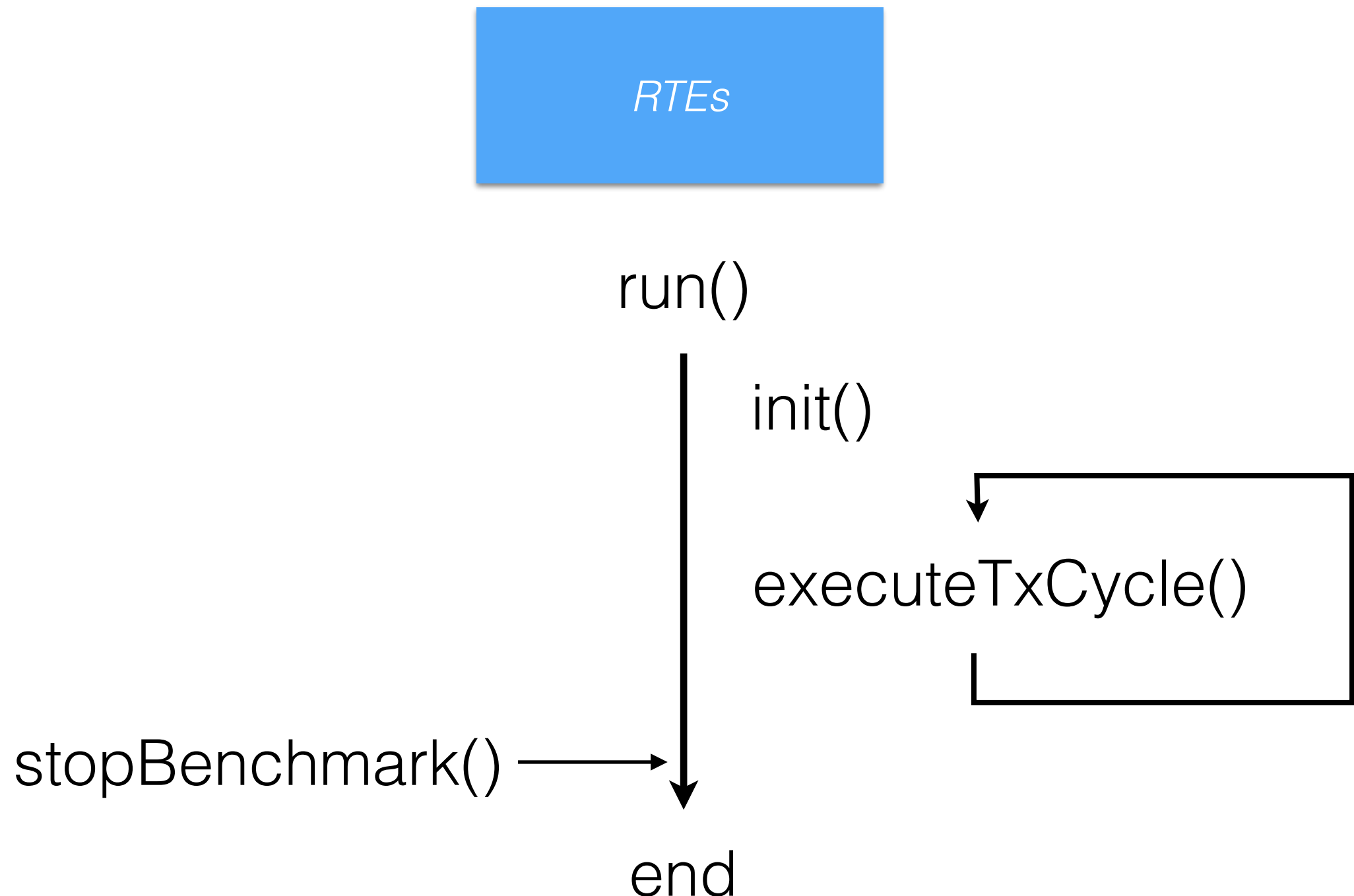


Starting Benchmark

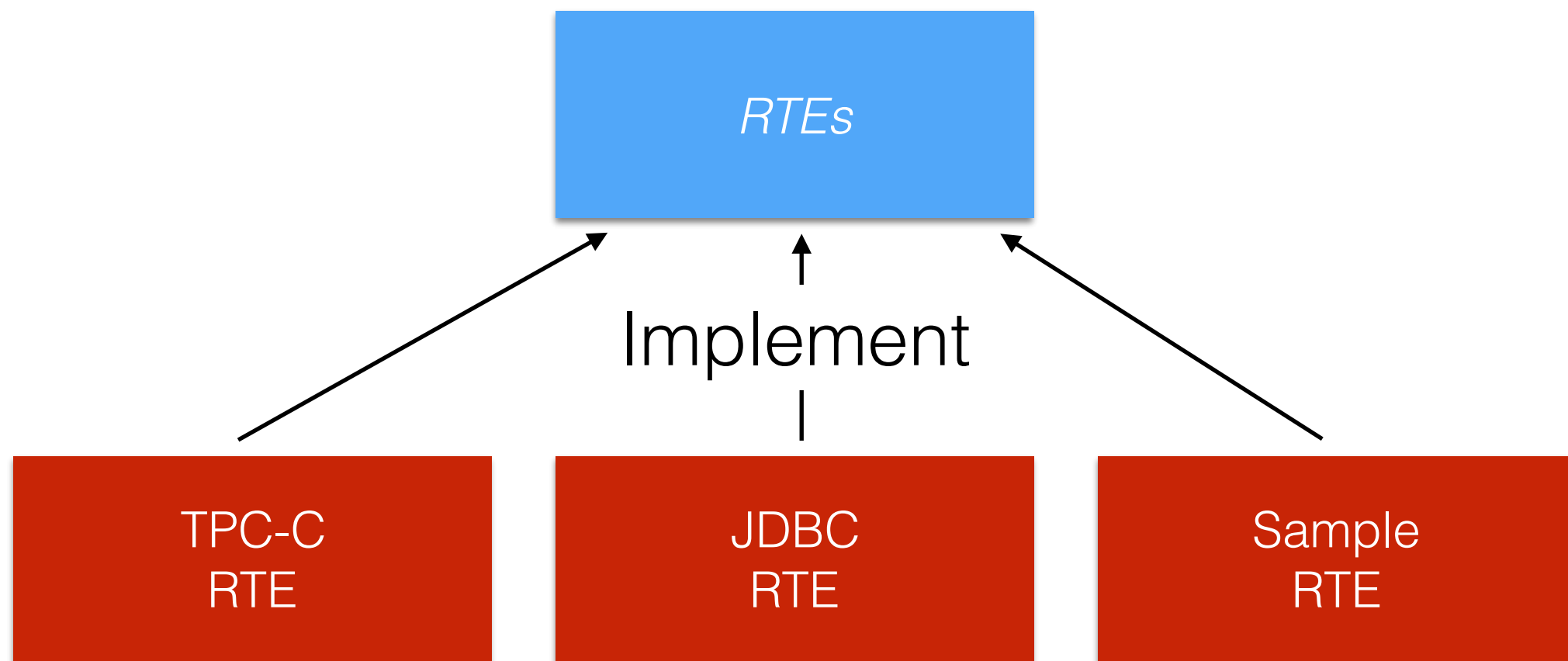


Emulates a remote terminal, executing a particular workload which is consist of a sequence of transactions

RTE Life Cycle



Starting Benchmark



Each RTE implementation can have different `executeTxnCycle()` implementations. This makes us to change workload easier.

JDBC?



Store Procedure ?



麥當勞歡樂送!

DWT

Executing a Transaction

- Store Procedure
 - Generate parameters from TxParamGenerator
 - CallStoredProc() to start a stored procedure on the remote server, with the generated parameters
 - Remote server will return a SutResultSet when the procedure is finished
 - Record the statistic from this resultset and the RTE will execute another new transaction
- JDBC
 - Generate parameters from TxParamGenerator
 - Executing the sql via JDBC connector

How Does Server Process a Incoming StoredProc call ?

- When the server receive a remote procedure call, it will ask StoredProcFactory to generate the appropriate StoredProcedure
- The server will then call the StoredProcedure methods:
 - prepare(Obj...)
 - preparing the parameters
 - execute()
 - executing the transaction
 - this method will return the final result to the client

Let's Trace the Code!