Programming with Server-side Code



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Server-side Programming Model

Run code inside Cosmos DB

Stored procedures

Triggers

User-defined functions

Bounded execution

Implement continuation model for long running processes

Scoped by partition key

Read/write documents with that partition key Fully transactional updates (ACID guarantee)

Handle throttling (code 429)

Implement retry logic when exceeding reserved throughput



Writing Server-side Code

Write a JavaScript function

Obtain context object

Context exposes

Collection

Request

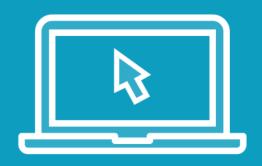
Response





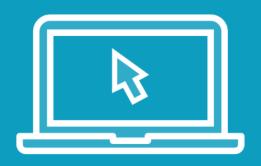
Creating stored procedures





Hello World stored procedure





Document validation and manipulation stored procedure





ID-generating stored procedure





Bulk insert stored procedure





Bulk delete stored procedure



Working with Triggers

Attach custom behavior

Access document being created or replaced

Two trigger types

Pre-trigger Post-trigger

Not fired automatically

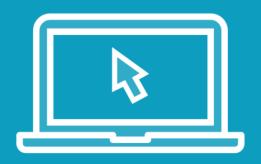
Must be explicitly requested with an operation





Creating triggers





Pre-triggers





Post-triggers



Creating User-Defined Functions (UDFs)

Extend the query language

Write custom business logic that can be called from inside queries

Use with care

Querying on a UDF requires a scan (cannot use index)

No access to context

Compute-only JavaScript





User-Defined Functions (UDFs)



Summary



Creating server-side code

- Stored procedures
- Triggers (pre- and post-)
- User-Defined Functions (UDFs)

Bounded execution continuation model

