QUERYING WITH THE SQL API

RICH QUERY WITH SQL

Cosmos DB SQL

Special version of SQL designed for JSON
.NET SDK also includes a LINQ provider

Familiar keywords

SELECT, FROM, WHERE, JOIN,
IN, BETWEEN, ORDER BY

Work with JSON

Descend into any subsection of a document
Iterate nested arrays for intra-document join
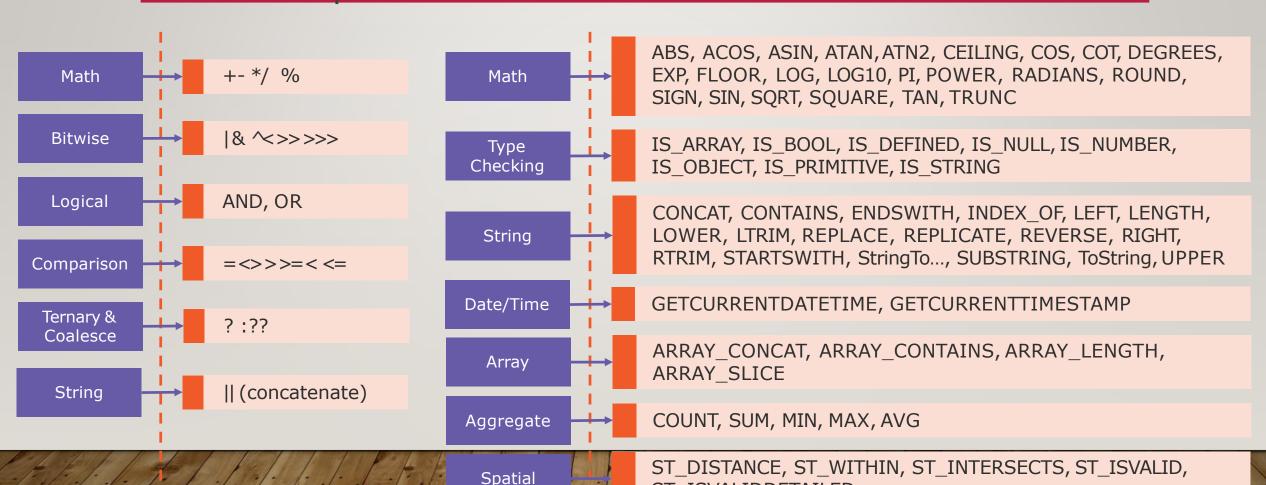Return documents as-is, or as custom shape

Example

```
SELECT ch.name, ch.birthdate
  FROM Families AS f
  JOIN ch IN f.children
  WHERE f.address.state = 'CA'
```

SQL OPERATORS AND FUNCTIONS

Common operators

Category	Operators
Math	+- */ %
Bitwise	|& ^< >> >>>
Logical	AND, OR
Comparison	=<>>>=< <=
Ternary & Coalesce	? :??
String	|| (concatenate)

Built-in functions

Category	Functions
Math	ABS, ACOS, ASIN, ATAN,ATN2, CEILING, COS, COT, DEGREES, EXP, FLOOR, LOG, LOG10, PI, POWER, RADIANS, ROUND, SIGN, SIN, SQRT, SQUARE, TAN, TRUNC
Type Checking	IS_ARRAY, IS_BOOL, IS_DEFINED, IS_NULL, IS_NUMBER, IS_OBJECT, IS_PRIMITIVE, IS_STRING
String	CONCAT, CONTAINS, ENDSWITH, INDEX_OF, LEFT, LENGTH, LOWER, LTRIM, REPLACE, REPLICATE, REVERSE, RIGHT, RTRIM, STARTSWITH, StringTo…, SUBSTRING, ToString,UPPER
Date/Time	GETCURRENTDATETIME, GETCURRENTTIMESTAMP
Array	ARRAY_CONCAT, ARRAY_CONTAINS, ARRAY_LENGTH, ARRAY_SLICE
Aggregate	COUNT, SUM, MIN, MAX, AVG
Spatial	ST_DISTANCE, ST_WITHIN, ST_INTERSECTS, ST_ISVALID, ST_ISVALIDDETAILED

Simple SQL Query

Scalar Expression Queries

Query Operators and Built-in Functions

Querying a Container

More SQL Queries

Aggregation Queries

Spatial Queries