What are data types?

Data types define the nature and format of values stored in database columns. Cassandra provides wider range of data types.

Offered Data Types By Cassandra:

1. Numeric Types
2. Textual Types
3. Temporal Types
4. Boolean Type
5. Binary Types
6. Collection Types
7. User-Defined Types (UDTs)
8. Special Types

Let’s explore all the above described data types.

Numeric Types:

- **int**: 32-bit signed integer.
- **bigint**: 64-bit signed integer.
- **float**: 32-bit floating-point number.
- **double**: 64-bit floating-point number.
- **decimal**: Variable-precision decimal.

Textual Types:

- **text**: Variable-length UTF-8 encoded string.
- **varchar**: Variable-length ASCII string.
- **ascii**: Fixed-length ASCII string.

Temporal Types:

- **timestamp**: Represents a point in time, stored as a 64-bit signed integer representing milliseconds since the Unix epoch.
- **date**: Represents a date without time, stored as a 32-bit integer.
- **time**: Represents a time of day, stored as a 64-bit signed integer representing nanoseconds since midnight.
- **duration**: Representing a time duration e.g 2h8m4s as string / integer

Boolean Type:

- **boolean:** Represents a boolean value (true or false).

Binary Types:

- **blob**: Variable-length binary data, such as images or serialized objects.

Collection Types:

- **list**: An ordered collection of elements.
- **set**: An unordered collection of unique elements.
- **map**: A collection of key-value pairs.

User-Defined Types (UDTs):

- `frozen`: Used to define user-defined types with multiple fields.

Special Types:

- **uuid**: Universally Unique Identifier (UUID).
- **inet**: Represents an IPv4 or IPv6 network address.
- **timeuuid**: A version 1 UUID that includes a timestamp component.

Resources:

- https://cassandra.apache.org/doc/latest/cassandra/cql/types.html#collections