**Data Types**

**Character Types**

1. Char(5) : Stores up to a max number of 5 characters

2. Varchar : Store any length of characters

3. Varchar(20) : Store up to 20 characters

4. Text : Store any length of characters

**Numeric Types**

Used when you need accuracy / precision

**Serial :** Whole numbers that also auto increment. Always used for column ids.

1. Smallserial : 1 to 32,767

2. Serial : 1 to 2147483647

3. Bigserial : 1 to 9223372036854775807

**Integer :** Whole numbers only Always used when you don’t need a decimal

1. Smallint : -32,768 to 32, 767

2. Integer : -2,147,583,648 to 2,174,483,647

3. Bigint : -9223372036854775808 to 9223372036854775807

**Floats**

1. Decimal : 131072 whole digits and 16383 after decimal

2. Numeric : 131072 whole digits and 16383 after decimal

3. Real : 1E-37 to 1E37 (6 places of precision)

4. Double Precision : 1E-307 to 1E308 (15 places of precision) Used when decimal doesn’t have to be very precise

5. Float : Same as double

**Boolean**

1. True, 1, t, y, yes, on

2. False, 0, f, n, no, off

3. null

**Date / Time**

**DATE**

1. No matter what format you enter you get this : 1974-12-21

**TIME**

1. TIME WITHOUT TIME ZONE (Default)

2. ‘1:30:30 PM’:: TIME WITHOUT TIME ZONE -> 13:30:30

3. 01:30 AM EST -> 01:30-5:00 (UTC Format)

4. 01:30 PM PST -> 01:30-8:00

5. 01:30 PM UTC -> 01:30+00:00

6. ’01:30:30 PM EST’::TIME WITH TIME ZONE -> 13:30:30-5:00

**TIMESTAMP**

1. ‘DEC-21-1974 1:30 PM EST’::TIMESTAMP WITH TIME ZONE -> 1974-12-21 13:30-5:00

**INTERVAL**

1. Represents a duration of time

2. ‘1 day’::INTERVAL -> 01:00

3. ‘1 D 1 H 1 M 1 S’::INTERVAL -> 01:01:01:01

4. You can add and subtract intervals

5. You can add or subtract intervals from dates

6. (‘DEC-21-1974 1:30 PM EST’::TIMESTAMP WITH TIME ZONE) – (‘1 D’::INTERVAL)

Also Currency, Binary, JSON, Range, Geometric, Arrays, XML, UUID

**Data Constraints**

Some additional data constraints include Not Null. If you mark data as not null that means it must have a value when a new row of data is created. Default designates a default value when a row is created without data.

Primary keys are identified as unique values assigned to a row. They are auto incremented each time a row of data is created