

# SQL Basics

## The basic SELECT statement

```
SELECT <column1>, <column2>, <column3>,  
      <literal>, <expression>  
  
FROM  <table A> ;
```

# SELECT Basics

- Commas are required, followed by blanks
- Place each clause on a separate line
- Indent and vertically align
- Semi-colon is required

# Pretty Code

Strive for "Pretty" code

- Your SQL code may be embedded in a host language
- Your queries may be stored in a repository
- Your code belongs to your organization
- It is good to include comments
- Make your code as clear as possible for your reader

# SQL Basics

Let's run some examples

```
select * from "alanparadise/nw"."employees";
```

(returns all rows and all columns)

```
select employeeid, lastname, firstname  
from "alanparadise/nw"."employees";
```

(returns selected columns)

# SQL Basics

## Expressions

- May be Functions
- May be Math

# SQL Basics

```
select lastname, firstname, hiredate,  
       current_date, date_part('month', hiredate)  
from "alanparadise/nw"."employees";
```

```
select  orderid, unitprice, quantity,  
        unitprice * quantity  
from "alanparadise/nw"."orderdetails";
```

# SQL Basics – Column Alias

```
select  orderid, unitprice, quantity,  
        unitprice * quantity as "Total Value"  
from "alanparadise/nw"."orderdetails";
```

```
select lastname, firstname,  
        to_char(hiredate, 'month') as "Hire Month"  
from "alanparadise/nw"."employees";
```

# SQL Basics - Concatenation

Concatenate character columns with

```
CONCAT (column1, 'literal', column2)
```

OR

<column>		<column>
<literal>		<literal>



# SQL Basics - Concatenation

```
select concat(firstname, ' ', lastname) as "Name"  
from "alanparadise/nw"."employees";
```

OR

```
select firstname || ' ' || lastname as "Name"  
from "alanparadise/nw"."employees";
```

# SQL Basics - Comments

Comment out a line of code by prefixing it with “- - ”

```
select concat(firstname, ' ', lastname) as "Name"  
-- this is concatenating the first and last name  
    from "alanparadise/nw"."employees";  
"
```

# SQL Basics - Comments

Comment out several lines of code by containing the lines within `"/**" and "*/"`

```
select concat(firstname, ' ', lastname) as "Name"  
/* this is concatenating the first and last name  
so that the names are combined */  
from "alanparadise/nw"."employees";
```

# SQL Basics - Lab

This concludes Module 2, Lesson 1, "The Basic Select Statement"

Next step: Follow the instructions for Lab # 1

Lab #1: Get into bit.io, then run some basic select queries against the Northwinds database