

## Module-6 : Creating Calculated Fields

### By concatenating different Fields

Concatenate: Joining values together to form a single long value.

```
SELECT vend_name + vend_country
FROM Vendors
ORDER BY vend_name;
```

```
SELECT vend_name + '(' + vend_country + ')'
FROM Vendors
ORDER BY vend_name;
```

SQL Server uses + for concatenation. DB2, Oracle, PostgreSQL, and SQLite support ||

### The TRIM Functions:

RTRIM() - which trims the right side (trailing spaces) of a string  
LTRIM() - which trims the left side (leading spaces) of a string  
TRIM() - which trims both the right and left.

```
SELECT RTRIM(vend_name) + '(' + RTRIM(vend_country) + ')'
FROM Vendors
ORDER BY vend_name;
```

```
SELECT LTRIM(vend_name) + '(' + LTRIM(vend_country) + ')'
FROM Vendors
ORDER BY vend_name;
```

```
SELECT TRIM(vend_name) + '(' + TRIM(vend_country) + ')'
FROM Vendors
ORDER BY vend_name;
```

```
SELECT RTRIM(LTRIM(vend_name)) + '(' + RTRIM(LTRIM(vend_country)) + ')'
FROM Vendors
ORDER BY vend_name;
```

### Using Aliases :

Alias is just an alternate name for a field or value.

common uses of aliases is to rename multiword column names to single-word names  
Aliases are also sometimes referred to as derived columns

```
SELECT RTRIM(vend_name) + '(' + RTRIM(vend_country) + ')'
AS vend_title
FROM Vendors
ORDER BY vend_name;
```

```
SELECT RTRIM(vend_name) + ' (' + RTRIM(vend_country) + ')'  
AS 'vend title'  
FROM Vendors  
ORDER BY vend_name;
```

### Performing Mathematical Calculations :

```
SELECT prod_id, quantity, item_price  
FROM OrderItems  
WHERE order_num = 20008;
```

```
SELECT prod_id, quantity, item_price,  
quantity*item_price AS expanded_price  
FROM OrderItems  
WHERE order_num = 20008;
```

### Challenges:

1. Write a SQL statement that retrieves vend\_id, vend\_name, vend\_address, and vend\_city from Vendors, renaming vend\_name to vname, vend\_city to vcity, and vend\_address to vaddress. Sort the results by vendor name (you can use the original name or the renamed name).
2. Write a SQL statement that returns prod\_id, prod\_price, and sale\_price from the Products table.  
(Sale price = 10% off price on original prod\_price)