

Lesson 7 - SQL SELECT I

Recall from last lecture,

Selecting data

Select all columns.

```
SELECT *  
FROM contacts;
```

Select single column.

```
SELECT first_name  
FROM contacts;
```

Select multiple columns.

```
SELECT first_name, phone_number  
FROM contacts;
```

Selecting based on a condition

Select all contacts who have children.

```
SELECT *  
FROM contacts  
WHERE number_of_children > 0;
```

```
SELECT first_name, last_name, phone_number  
FROM contacts  
WHERE first_name = 'Muhammad';
```

Selecting based on multiple conditions

When both conditions **MUST** be true.

```
SELECT first_name, last_name, phone_number
FROM contacts
WHERE first_name = 'Muhammad' AND number_of_children > 0;
```

When **ANY** condition can be true.

```
SELECT *
FROM contacts
WHERE first_name = 'Muhammad' OR number_of_children > 0;
```

When we want the opposite of a condition.

```
SELECT *
FROM contacts
WHERE NOT first_name = 'Muhammad';
```

Combining Operators

```
SELECT *
FROM contacts
WHERE NOT number_of_children = 1 AND
      NOT first_name = 'Muhammad';
```

What about Null values?

```
SELECT *
FROM contacts
WHERE last_name IS NULL;
```

```
SELECT *
FROM contacts
WHERE last_name IS NOT NULL;
```

SQL Functions

```
SELECT COUNT(*)
FROM contacts
WHERE last_name IS NULL;
```

```
SELECT SUM(number_of_children)
FROM contacts;
```

```
SELECT COUNT(*)
FROM contacts
```

```
WHERE number_of_children IS NOT NULL
      AND number_of_children > 0;
```

Assignment 4

id	name	category	unit_price_usd
1	potatoes	food	0.3
2	tomatoes	food	0.7
3	pencil	stationary	0.1
4	notebook	stationary	1.5
5	shirt	clothing	11.5
6	wristwatch	electronics	70

Write sql queries to create a table named `products` as shown above and then query data from it. You need to determine the datatype of each column based on the value stored in it.

Write the following queries:

1. **Create** the given table.
2. Query **all** contents of the table.
3. Query only product **names**.
4. Query all products which cost **less than \$10**
5. **Count** the number of food products in the table.

Create a document in which you will paste these queries and attach screenshots of their results.