



# Databases and simple sql commands

Database Course

# What we'll cover

- What is sql?
- Create, read, update and delete operations in sql.
- Advanced single table queries using the select statement.

# SQL

- Structured Query Language
- A standardised language for retrieving and updating data in a relational database.

# Creating a row

- The insert statement

```
INSERT INTO tablename  
(column-name1, column-name2, ..., column-nameX)  
VALUES  
( 'value1', 'value2', ..., valueX );
```

```
INSERT INTO staff  
(firstname, surname, dob, street_address, town, postcode, mobile, email, salary)  
VALUES  
('Tom', 'Blackmore', '1976-04-21', '2 Studland Road', 'Kingston-Upon-Thames',  
'KT2 5HJ', '0208 546 2786', 'tom.blackmore@arctictiger.se', 37000);
```

- Strings should be enclosed in single quotation marks.  
                        'value'
- Numeric values should be without quotes
- null can be used to represent no data and is better than "

# Read

- The SELECT statement is where the power in SQL lies.

```
SELECT column1, column2, ..., columnX  
FROM table-name;
```

# WHERE

SELECT column1, column2, ..., columnX  
FROM table-name

WHERE column1 = 'hello' and column2  
like '%b%' and columnX > 1000;



- WHERE can be really complex too, but beware complex SELECT statements eat your processing power.

# UPDATE

```
UPDATE Person  
SET namn = 'Fredrik Reinfeldt'  
WHERE yrke = 'Statsminister';
```

# DELETE

```
DELETE FROM Person  
WHERE stad = 'Atlantis';
```

- <http://www.databasteknik.se/webbkursen/sql/index.html>