

MySQL Data Types	
CHAR	String (0 - 255)
VARCHAR	String (0 - 255)
TINYTEXT	String (0 - 255)
TEXT	String (0 - 65535)
BLOB	String (0 - 65535)
MEDIUMTEXT	String (0 - 16777215)
MEDIUMBLOB	String (0 - 16777215)
LONGTEXT	String (0 - 4294967295)
LOB	String (0 - 4294967295)
TINYINT x	Integer (-128 to 127)
SMALLINT x	Integer (-32768 to 32767)
MEDIUMINT x	Integer (-8388608 to 8388607)
INT x	Integer (-2147483648 to 2147483647)
BIGINT x	Integer (-9223372036854775808 to 9223372036854775807)
FLOAT	Decimal (precise to 23 digits)
DOUBLE	Decimal (24 to 53 digits)
DECIMAL	"DOUBLE" stored as string
DATE	YYYY-MM-DD
DATETIME	YYYY-MM-DD HH:MM:SS
TIMESTAMP	YYMMDDHHMMSS
TIME	HH:MM:SS
ENUM	One of preset options
SET	Selection of preset options
Integers (marked x) that are "UNSIGNED" have the same range of values but start from 0 (i.e., an UNSIGNED TINYINT can have any value from 0 to 255).	

Select queries
select all columns SELECT * FROM tbl;
select some columns SELECT col1, col2 FROM tbl;
select only unique records SELECT DISTINCT FROM tbl WHERE condition;
column alias with AS SELECT col FROM tbl AS newname;
order results SELECT * FROM tbl ORDER BY col [ASC DESC];
group results SELECT col1, SUM(col2) FROM tbl GROUP BY col1;
Creating and modifying
create a database CREATE DATABASE db_name;
select a database USE db_name;
list the databases on the server SHOW DATABASES;
show a table's fields DESCRIBE tbl;
create a new table CREATE TABLE tbl (field1, field2);
insert data into a table INSERT INTO tbl VALUES ("val1", "val2");
delete a row DELETE * FROM tbl WHERE condition;
add a column from a table ALTER TABLE tbl ADD COLUMN col;
remove a column from a table ALTER TABLE tbl DROP COLUMN col;
make a column a primary key ALTER TABLE tbl ADD PRIMARY KEY (col);

Creating and modifying (cont)
return only 1 row matching query ... LIMIT = 1
amend the values of a column UPDATE table SET column1="val1" WHERE ...
clear all the values, leaving the table structure TRUNCATE TABLE tbl;
delete the table DROP TABLE tbl;
delete the database DROP DATABASE db_name;
Matching data
matching data using LIKE SELECT * FROM tbl1 WHERE col LIKE '%value%'
matching data using REGEX SELECT * FROM tbl1 WHERE col RLIKE 'regular_expression'
Joins
INNER JOIN returns only where match in both tables
OUTER JOIN also returns non-matching records from both tables
LEFT JOIN also returns non-matching records from left table
RIGHT JOIN also returns non-matching records in right table
JOIN syntax: SELECT * FROM tbl1 INNER JOIN tbl2 ON tbl1.id = tbl2.id;
String functions mySQL
Compare strings STRCMP("str1","str2")
Convert to lower case LOWER("str")
Convert to upper case UPPER("str")
Left trim LTRIM("str")

String functions mySQL (cont)

Substring of a string	SUBSTRING("str","inx1","inx2")
Concatenate	CONCAT("str1","str2")

MySQL calculation functions

Count rows	COUNT(col)
Average	AVG(col)
Minimum value	MIN(col)
Maximum value	MAX(col)
Sum of values	SUM(col)

Create table with auto-incrementing primary key

```
CREATE TABLE table_name (  
id INT AUTO_INCREMENT,  
column VARCHAR(2),  
column VARCHAR(32),  
PRIMARY KEY (id)  
);
```