```sql
SELECT * FROM employees;

SELECT * FROM employees
WHERE emp_id = 2;

SELECT * FROM employees
ORDER BY name;
```

SQL KEYWORDS

KEYWORDS	DESCRIPTION
ADD	Adds a new column to an existing table. **Example**: Adds a new column named email_address' to a table named 'users!. ALTER TABLE users ADD email address varchar(255);
ADD CONSTRAINT	It creates a new constraint on an existing table, which is used to specify rules for any data in the table. **Example**: Adds a new PRIMARY KEY constraint named 'user' on columns ID and SURNAME. ALTER TABLE users ADD CONSTRAINT user PRIMARY KEY (ID, SURNAME);
ALTER TABLE	Adds, deletes or edits columns in a table. It can also be used to add and delete constraints in a table, as per the above. **Example**: Adds a new boolean column called approved to a table named 'deals! ALTER TABLE deals ADD approved boolean; **Example 2**: Deletes the approved column from the 'deals' table. ALTER TABLE deals DROP COLUMN approved;
ALTER COLUMN	Changes the data type of a table's column. Example In the 'users' table, make the column 'incept_date' into a 'datetime' type. ALTER TABLE users ALTER COLUMN incept_date datetime;
ALL	Returns true if all of the subquery values meet the passed condition. **Example**: Returns the users with a higher number of tasks than the user with the highest number of tasks in the HR department (id 2). SELECT first_name, surname, tasks_no FROM users

SQL KEYWORDS

KEYWORDS	DESCRIPTION
DROP COLUMN	Deletes a column from a table. **Example**: Removes the first_name column from the users table. ALTER TABLE users DROP COLUMN first_name
DROP DATABASE	Deletes the entire database. **Example**: Deletes a database named 'websitesetup. DROP DATABASE websitesetup;
DROP DEFAULT	Removes a default value for a column. **Example 1(MySQL)**: Removes the default value from the name column in the 'products' table. ALTER TABLE products ALTER COLUMN name DROP DEFAULT;
DROP TABLE	Deletes a table from a database. **Example**: Removes the users table. DROP TABLE users;
EXISTS	Checks for the existence of any record within the subquery, returning true if one or more records are returned. **Example**: Lists any dealerships with a deal finance percentage less than 10. SELECT dealership_name FROM dealerships WHERE EXISTS (SELECT deal_name FROM deals WHERE dealership_id = deals.dealership_id AND finance_ percentage < 10);
FROM	Specifies which table to select or delete data from. **Example**:Selects data from the users table. SELECT area_manager FROM area_managers

	WHERE tasks_no > ALL (SELECT tasks FROM user WHERE department_id = 2);
AND	Used to join separate conditions within a WHERE clause. **Example**:Returns events located in London, United Kingdom. SELECT * FROM events WHERE host_country='United Kingdom' AND host_city='London';
ANY	Returns true if any of the subquery values meet the given condition. **Example**:Returns products from the products table which have received orders – stored in the orders table - with a quantity of more than 5. SELECT name FROM products WHERE productId = ANY (SELECT productId FROM orders WHERE Qty >
AS	Renames a table or column with an alias value which only exists for the duration of the query. **Example**:Aliases north_east_user_subscriptions column. SELECT north_east_user_subscriptions AS ne_subs FROM users WHERE ne_subs > 5;
ASC	Used with ORDER BY to return the data in ascending order. **Example**:Apples, Bananas, Peaches, Raddish.
BETWEEN	Selects values within the given range. **Example 1**:Selects stock with a quantity between 100 and 150. SELECT * FROM stock WHERE quantity BETWEEN 100 AND 150; **Example 2**:Selects stock with a quantity NOT between 100 and 150. Alternatively, using the NOT keyword here reverses the logic and selects values outside the given range. SELECT * FROM stock WHERE quantity NOT BETWEEN 100 AND 150;
CASE	Change query output depending on conditions. **Example 1**:Returns users and their subscriptions, along with a new column called activity_levels that makes a judgement based on the number of subscriptions. SELECT first_name, surname, subscriptions CASE WHEN subscriptions > 10 THEN 'Very active' WHEN Quantity BETWEEN 3 AND 10 THEN 'Active' ELSE 'Inactive' END AS activity levels FROM users;
	Adds a constraint that limits the value which can be added to a column. **Example 1(MySQL)**: Makes sure any users added to the users table are 18 or over. CREATE TABLE users first_name varchar(255),

	WHERE EXISTS (SELECT ProductName FROM Products WHERE area_manager_id = deals.area_manager_id AND Price < 20);
IN	Used alongside a WHERE cause as a shorthand for multiple OR conditions. So instead of: SELECT * FROM users WHERE country = 'USA' OR country = 'United Kingdom' OR country = 'Russia' OR country = 'Australia'; You can use:- SELECT * FROM users WHERE country IN (USA', 'United Kingdom', 'Russia', 'Australia');
INSERT INTO	Add new rows to a table. **Example**: Adds a new vehicle. INSERT INTO cars (make, model, mileage, year) VALUES ('Audi', 'A3', 30000, 2016);
IS NULL	Tests for empty (NULL) values. **Example**: Returns users that haven't given a contact number. SELECT * FROM users WHERE contact_number IS NULL;
IS NOT NULL	The reverse of NULL Tests for values that aren't empty / NULL.
LIKE	Returns true if the operand value matches a pattern. **Example**: Returns true if the user's first_name ends with 'son'. SELECT * FROM users WHERE first_name LIKE '%son';
NOT	Returns true if a record DOESN'T meet the condition. **Example**: Returns true if the user's first_name doesn't end with 'son'. SELECT * FROM users WHERE first_name NOT LIKE 'son';
OR	Used alongside WHERE to include data when either condition is true. **Example**: Returns users that live in either Sheffield or Manchester. SELECT * FROM users WHERE city = 'Sheffield' OR 'Manchester';
ORDER BY	Used to sort the result data in ascending (default) or descending order through the use of ASC or DESC keywords. **Example**: Returns countries in alphabetical order. SELECT * FROM countries ORDER BY name;
ROWNUM	Returns results where the row number meets the passed condition. **Example** : Returns the top 10 countries from the countries table. SELECT * FROM countries WHERE ROWNUM C= 10;
SELECT	Used to select data from a database, which is then returned in a results set. **Example** : Selects all columns from all users. SELECT * FROM users; Example 2: Selects the first_name and surname columns from all users.XX SELECT first_name, surname FROM users;

CHECK	age int, CHECK (age=18)); **Example 2(MySQL)**: Adds a check after the table has already been created. ALTER TABLE users ALTER TABLE users
CREATE DATABASE	Creates a new database. **Example 1(MySQL)**: Creates a new database named websiteset. CREATE DATABASE websitesetup;
CREATE TABLE	Creates a new table. **Example**: Creates a new table called 'users' in the websitesetup database. CREATE TABLE users id int, first_name varchar(255), surname varchar(255), address varchar(255), contact number int);
DEFAULT	Sets a default value for a column; **Example 1(MySQL)**: Creates a new table called Products which has a name column with a default value of 'Placeholder Name' and an available_from column with a default value of today's date. CREATE TABLE products id int, name varchar(255) DEFAULT 'Placeholder Name', available from date DEFAULT GETDATE()); **Example 2(MySQL)**: The same as above, but editing an existing table. ALTER TABLE products ALTER name SET DEFAULT 'Placeholder Name' ALTER available_from SET DEFAULT GETDATE();
DELETE	Delete data from a table. **Example**: Removes a user with a user_id of 674. DELETE FROM users WHERE user_id = 674;
DESC	Used with ORDER BY to return the data in descending order. **Example**: Raddish, Peaches, Bananas, Apples.

SELECT DISTINCT	Sames as SELECT, except duplicate values are excluded. **Example** : Creates a backup table using data from the users table. SELECT * INTO usersBackup2020 FROM users;
SELECT INTO	Copies data from one table and inserts it into another. **Example**: Returns all countries from the users table, removing any duplicate values (which would be highly likely). SELECT DISTINCT country from users;
SELECT TOP	Allows you to return a set number of records to return from a table. **Example**: Returns the top 3 cars from the cars table. SELECT TOP 3 * FROM cars;
SET	Used alongside UPDATE to update existing data in a table. **Example**: Updates the value and quantity values for an order with an id of 642 in the orders table. UPDATE orders SET value = 19.49, quantity = 2 WHERE id = 642;
SOME	Identical to ANY
TOP	Used alongside SELECT to return a set number of records from a table. **Example**: Returns the top 5 users from the users table. SELECT TOP 5 * FROM users;
TRUNCATE TABLE	Similar to DROP, but instead of deleting the table and its data, this deletes only the data. **Example**: Empties the sessions table, but leaves the table itself intact. TRUNCATE TABLE sessions;
UNION	Combines the results from 2 or more SELECT statements and returns only distinct values. **Example**: Returns the cities from the events and subscribers tables. SELECT city FROM events UNION SELECT city from subscribers;
UNION ALL	The same as UNION but includes duplicate values.
UNIQUE	This constraint ensures all values in a column are unique. **Example 1 (MySQL)**: Adds a unique constraint to the id column when creating a new users table. CREATE TABLE users id int NOT NULL, name varchar(255) NOT NULL, UNIQUE (id)); **Example 2 (MySQL)**: Alters an existing column to add a UNIQUE constraint. ALTER TABLE users ADD UNIQUE (id);
UPDATE	Updates existing data in a table. **Example**: Updates the mileage and service Due values for a vehicle with an UPDATE cars SET mileage = 23500, serviceDue = 8

	WHERE id = 45;
VALUES	Used alongside the INSERT INTO keyword to add new values to a table. **Example**: Adds a new car to the cars table. SET mileage = 23500, serviceDue = 8 INSERT INTO cars (name, model, year) VALUES ('Ford', 'Fiesta', 2010);
WHERE	Filters results to only include data which meets the given condition. **Example**: Returns orders with a quantity of more than 1 item. SELECT * FROM orders WHERE quantity > 1;

COMMENTS

SINGLE LINE COMMENTS

Single line comments start with -.Any text after these 2 characters to the end of the line will be ignored

```
-- My Select query

SELECT * FROM users;
```

MULTILINE COMMENTS

Multiline comments start with /* and end with */. They stretch across multiple lines until the closing characters have been found.

```
/*

This is my select query.

It grabs all rows of data from the users table

SELECT * FROM users;

This is another select query, which I don't
want to execute yet

SELECT * FROM tasks;

*/
```

MySQL Data Types

```
CREATE TABLE users (

id int,

first_name varchar(255)

);
```

STRING DATA TYPES

DATA TYPE	DESCRIPTION
CHAR(SIZE)	Fixed length string which can contain letters, numbers and special characters. The size parameter sets the maximum string length, from 0 - 255 with a default of 1.
VARCHAR(SIZE)	Variable length string similar to CHARQ, but with a maximum string length range from 0 to 65535.
BINARY(SIZE)	Similar to CHARO but stores binary byte strings.
VARCHAR(SIZE)	Similar to CHARO but stores binary byte strings.
TINYBLOB	Holds Binary Large Objects (BLOBs) with a maxlength of 255 bytes.

NUMERIC DATA TYPES

DATA TYPE	DESCRIPTION
BIT(SIZE)	A bit-value type with a default of 1. The allowed number of bits in a value is set via the size parameter, which can hold values from 1 to 64.
TINYINT(SIZE)	A very small integer with a signed range of -128 to 127, and an unsigned range of 0 to 255. Here, the size parameter specifies the maximum allowed display width, which is 255.
BOOLEAN	Same as BOOL
SMALLINT(size)	A small integer with a signed range of -32768 to 32767, and an unsigned range from 0 to 65535. Here, the size parameter specifies the maximum allowed display width, which is 255.

TINYTEXT	Holds a string with a maximum length of 255 characters. Use VARCHAR() instead, as it's fetched much faster.
TEXT(size)	Holds a string with a maximum length of 65535 bytes. Again, better to use VARCHARO
BLOB(size)	Holds Binary Large Objects (BLOBS) with a max length of 65535 bytes.
MEDIUMBLOB	Holds Binary Large Objects (BLOBs) with a max length of 16,777,215 bytes
LONGTEXT	Holds a string with a maximum length of 4,294,967,295 characters.
LONGBLOB	Holds Binary Large Objects (BLOBS) with a max length of 4,294,967,295 bytes
ENUM(a, b, c, etc...)	A string object that only has one value, which is chosen from a list of values which you define, up to a maximum of 65535 values. If a value is added which isn't on this list, it's replaced with a blank value instead. Think of ENUM being similar to HTML radio boxes in this regard. CREATE TABLE tshirts (color ENUM 'red', 'green', 'blue', 'yellow', 'purple'));
SET (a, b, c, etc...)	A string object that can have 0 or more values, which is chosen from a list of values which you define, up to a maximum of 64 values. Think of SET being similar to HTML checkboxes in this regard

DATE/TIME DATA TYPES

DATA TYPE	DESCRIPTION
DATE	A simple date in YYYY-MM-DD format, with a supported range from "1000-01-01' to '9999-12-31.
DATETIME(fsp)	A date time in YYYY-MM-DD hh:mmess format, with a supported range from '1000-01-01 00:00:00' to '9999-12-31 23:59:59'.' By adding DEFAULT and ON UPDATE to the column definition, it automatically sets to the current date/time.
TIMESTAMP(fsp)	A Unix Timestamp, which is a value relative to the number of seconds since the Unix epoch (1970-01-01 00:00:00' UTC). This has a supported range from '1970-01-01 00:00:01 UTC to 2038-01-09 03:14:07' UTC By adding DEFAULT CURRENT_TIMESTAMP and ON UPDATE CURRENT TIMESTAMP to the column definition, it automatically sets to current date/time.
TIME(fsp)	A time in hh:mmess format, with a supported range from '838:59:59 to '838:59:59.
YEAR	A year, with a supported range of '1901' to '2155.

MEDIUMINT(size)	A medium integer with a signed range of -8388608 to 8388607,and an unsigned range from 0 to 16777215. Here, the size parameter specifies the maximum allowed display width, which is 255.
INT(size)	A medium integer with a signed range of -2147483648 to 2147483647, and an unsigned range from 0 to 4294967295. Here, the size parameter specifies the maximum allowed display width, which is 255.
INTEGER(size)	Same as INT.
BIGINT(size)	A medium integer with a signed range of -9223372036854775808 to 9223372036854775807, and an unsigned range from 0 to18446744073709551615. Here, the size parameter specifies the maximum allowed display width, which is 255.
FLOAT(p)	A floating point number value. If the precision (p) parameter is between O to 24, then the data type is set to FLOAT(), whilst if its from 25 to 53,the data type is set to DOUBLE(). This behaviour is to make the storage of values more efficient.
DOUBLE(size, d)	A floating point number value where the total digits are set by the size parameter, and the number of digits after the decimal point is set by the d parameter
DECIMAL(size, d)	An exact fixed point number where the total number of digits is set by the size parameters, and the total number of digits after the decimal point is set by the d parameter. For size, the maximum number is 65 and the default is 10, whilst ford,the maximum number is 30 and the default is 10.
DEC(sze, d)	Same as DECIMAL.

OPERATORS

ARITHMETIC OPERATORS

OPERATOR	DESCRIPTION
+	Add
-	Subtract
*	Multiply
/	Divide
%	Modulo

BITWISE OPERATORS

OPERATOR	DESCRIPTION
&	Bitwise AND
|	Bitwise OR
^	Bitwise exclusive OR

COMPARISON OPERATORS

OPERATOR	DESCRIPTION
=	Equal to
>	Greater than
<	Less than
>=	Greater than or equal to
<=	Less than or equal to
<>	Not equal to

COMPOUND OPERATORS

OPERATOR	DESCRIPTION
+=	Add equals
-=	Subtract equals
*=	Multiply equals
/=	Divide equals
%=	Modulo equals
&=	Bitwise AND equals
^-=	Bitwise exclusive equals
|*=	Bitwise OR equals

FUNCTIONS

STRING FUNCTIONS

DATA TYPE	DESCRIPTION
ASCIIA	Returns the equivalent ASCII value for a specific character.
CHAR_LENGTH	Returns the character length of a string.
CHARACTER LENGTH	Same as CHAR_LENGTH.
CONCAT	Adds expressions together, with a minimum of 2.
CONCAT_WS	Adds expressions together, but with a separator between each value.
FIELD	Returns an index value relative to the position of a value within a list of values.

NUMERIC FUNCTIONS

DATA TYPE	DESCRIPTION
ABS	Returns the absolute value of the given number.
ACOS	Returns the arc cosine of the given number.
ASIN	Returns the arc sine of the given number.
ATAN	Returns the arc tangent of one or 2 given numbers
ATAN2	Return the arc tangent of 2 given numbers.
AVG	Returns the average value of the given expression.

FORMAT	When passed a number, returns that number formatted to include commas (eg 3,400,000).
INSERT	Allows you to insert one string into another at a certain point, for a certain number of characters.
INSTR	Returns the position of the first time one string appears within another.
LCASE	Convert a string to lowercase.
LEFT	Starting from the left, extract the given number of characters from a string and return them as another.
LENGTH	Returns the length of a string, but in bytes.
LOCATE	Returns the first occurrence of one string within another,
LOWER	Same as LCASE
LPAD	Left pads one string with another, to a specific length.
LTRIM	Remove any leading spaces from the given string.
MID	Extracts one string from another, starting from any position.
POSITION	Returns the position of the first time one substring appears within another.
REPEAT	Allows you to repeat a string.
REPLACE	Allows you to replace any instances of a substring within a string, with a new substring.
REVERSE	Reverses the string.
RIGHT	Starting from the right, extract the given number of characters from a string and return them as another.
RPAD	Right pads one string with another, to a specific length.
RTRIM	Removes any trailing spaces from the given string.
SPACE	Returns a string full of spaces equal to the amount you pass it.
STRCMP	Compares 2 strings for differences.
SUBSTR	Extracts one substring from another, starting from any position.
SUBSTRING	Same as SUBSTR

CEIL	Returns the closest whole number (integer) upwards from a given decimal point number.
CEILING	Same as CEIL
COS	Returns the cosine of a given number.
COT	Returns the cotangent of a given number.
COUNT	Returns the amount of records that are returned by a SELECT query.
DEGREES	Converts a radians value to degrees.
DIV	Allows you to divide integers.
EXP	Returns to the power of the given number.
FLOOR	Returns the closest whole number (integer) downwards from a given decimal point number.
GREATEST	Returns the highest value in a list of arguments.
LEAST	Returns the smallest value in a list of arguments.
LN	Returns the natural logarithm of the given number.
LOG	Returns the natural logarithm of the given number, or the logarithm of the given number to the given base.
LOG10	Does the same as LOG, but to base 10
LOG2	Does the same as LOG, but to base 2.
MAX	Returns the highest value from a set of values.
MIN	Returns the lowest value from a set of values.
MOD	Returns the remainder of the given number divided by the other given number.
PI	Returns PI.
POW	Returns the value of the given number raised to the power of the other given number.
POWER	Same as POW.
RADIANS	Converts a degrees value to radians.
RAND	Returns a random number.

SUBSTRING_ INDEX	Returns a substring from a string before the passed substring is found the number of times equals to the passed number.
TRIM	Removes trailing and leading spaces from the given string Same as if you were to run LTRIM and RTRIM together.
UCASE	Convert a string to uppercase.
UPPER	Same as UCASE.

NUMERIC FUNCTIONS

DATA TYPE	DESCRIPTION
ADDDATE	Add a date interval (eg 10 DAY) to a date (eg 20/01/20) and return the result (eg: 20/01/30).
ADDTIME	Add a time interval (eg: 02:00) to a time or datetime (05:00) and return the result (07:00).
CURDATE	Get the current date.
CURRENT_DATE	Same as CURDATE.
CURRENT_ TIMESTAMP	Get the current date and time.
CURTIME	Same as CURRENT_TIME.
DATE	Extracts the date from a datetime expression.
DATEDIFF	Returns the number of days between the 2 given dates.
DATE_ADD	Same as ADDDATE.
DATE_FORMAT	Formats the date to the given pattern.
DATE_SUB	Subtract a date interval (eg: 10 DAY) to a date (eg 20/01/20) and return the result (eg: 20/01/10).
DAY	Returns the day for the given date.
DAYNAME	Returns the weekday name for the given date.
DAYOFWEEK	Returns the index for the weekday for the given date.
DAYOFYEAR	Returns the day of the year for the given date.

SIGN	Returns the sign of the given number.
SIN	Returns the sine of the given number.
SQRT	Returns the square root of the given number.
SUM	Returns the value of the given set of values combined.
TAN	Returns the tangent of the given number.
TRUNCATE	Returns number truncated to the given number of decimal places.

NUMERIC FUNCTIONS

DATA TYPE	DESCRIPTION
IN	Returns the given number in binary.
BINARY	Returns the given value as a binary string
CAST	Convert one type into another.
COALESCE	From a list of values, return the first non-null value.
CONNECTION_ID	For the current connection, return the unique connection ID.
CONV	Convert the given number from one numeric base system into another.
CONVERT	Convert the given value into the given datatype or character set.
CURRENT_USER	Return the user and hostname which was used to authenticate with the server.
DATABASE	Get the name of the current database.
GROUP BY	Used alongside aggregate functions (COUNT, MAX, MIN, SUM, AVG) to group the results. **Example**: Lists the number of users with active orders. SELECT COUNT(user_id), active_orders FROM users GROUP BY active_orders;
HAVING	It's used in the place of WHERE with aggregate functions. **Example**: Lists the number of users with active orders, but only include users with more than 3 active orders. SELECT COUNT(user_id), active_orders FROM users GROUP BY active_orders HAVING COUNT(user_id) > 3;

EXTRACT	Extract from the date the given part (eg MONTH for 20/01/20=01).
FROM DAYS	Return the date from the given numeric date value. HOUR.
HOUR	Return the hour from the given date.
LAST DAY	Get the last day of the month for the given date.
LOCALTIME	Gets the current local date and time.
LOCALTIMESTAMP	Same as LOCALTIME.
MAKEDATE	Creates a date and returns it, based on the given year and number of days values.
MICROSECOND	Returns the microsecond of a given time or datetime.
MINUTE	Returns the minute of the given time or datetime.
MONTH	Returns the month of the given date.
MONTHNAME	Returns the name of the month of the given date.
NOW	Same as LOCALTIME.
PERIOD_ADD	Adds the given number of months to the given period.
PERIOD_DIFF	Returns the difference between 2 given periods.
QUARTER	Returns the year quarter for the given date.
SECOND	Returns the second of a given time or datetime.
SEC_TO_TIME	Returns a time based on the given seconds.
STR_TO_DATE	Creates a date and returns it based on the given string and format.
SUBDATE	Same as DATE_SUB.
SUBTIME	Subtracts a time interval (eg: 02:00) to a time or datetime (05:00) and return the result (03:00).
SYSDATE	Same as LOCALTIME.
TIME	Returns the time from a given time or datetime.
TIME_FORMAT	Returns the given time in the given format.
TIME_TO_SEC	Converts and returns a time into seconds.
TIMEDIFF	Returns the difference between 2 given time/datetime expressions.

IF	If the condition is true return a value, otherwise return another value.
IFNULL	If the expression is null, return 1 otherwise return O.
LAST_INSERT_ID	For the last row which was added or updated in a table, return the auto increment.
NULLIF	Compares the 2 given expressions. If they are equal, NULL is returned, otherwise the first expression is returned.
SESSION_USER	Return the current user and hostnames.
SYSTEM_USER	Same as SESSION_USER.
VERSION	Returns the current version of the MySQL powering the database.

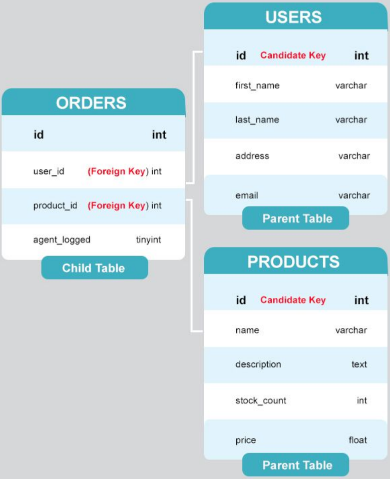
WILDCARDS

NAME	DESCRIPTION
%	Equates to zero or more characters. **Example 1**: Find all users with surnames ending in 'son'. SELECT * FROM users WHERE surname LIKE 'xson'; **Example 2**: Find all users with surnames ending in 'son'. SELECT * FROM users WHERE city LIKE '%che%';
-	Equates to any single character. **Example 1**: Find all users living in cities beginning with any 3 characters, followedby 'chester! SELECT * FROM users WHERE city LIKE '___chester'
(CHADIST)	Equates to any single character in the list. **Example 1**: Find all users with first names beginning with J, H or M. SELECT * FROM users WHERE first_name LIKE '(jhm]>'; **Example 2**: Find all users with first names beginning letters between A-L. SELECT * FROM users WHERE first_name LIKE '[a-1]>'; **Example 3**: Find all users with first names not ending with letters between n-s. SELECT * FROM users WHERE first_name LIKE '%[!n-s]);

TIMESTAMP	Returns the datetime value of the given date or datetime.
TO_DAYS	Returns the total number of days that have passed from '00-00- 0000' to the given date.
WEEK	Returns the week number for the given date.
WEEKDAY	Returns the weekday number for the given date.
WEEKOFYEAR	Returns the week number for the given date.
YEAR	Returns the year from the given date.
YEARWEEK	Returns the year and week number for the given date.

KEYS

FOREIGN KEY



ORDERS

id		**int**
user_id	(**Foreign Key**)	int
product_id	(**Foreign Key**)	int
agent_logged		tinyint

Child Table

USERS

id	**Candidate Key**	**int**
first_name		varchar
last_name		varchar
address		varchar
email		varchar

Parent Table

PRODUCTS

id	**Candidate Key**	**int**
name		varchar
description		text
stock_count		int
price		float

Parent Table

EXAMPLE 1 (MYSQL)

```
CREATE TABLE orders (
id int NOT NULL,
user_id int,
product_id int,
PRIMARY KEY (id),
FOREIGN KEY (user_id) REFERENCES users(id),
FOREIGN KEY (product_id) REFERENCES products(id)
);
```

EXAMPLE 2 (MYSQL)

```
ALTER TABLE orders
ADD FOREIGN KEY (user_id) REFERENCES users(id);
```

PRIMARY KEY

EXAMPLE 1 (MYSQL)

```
CREATE TABLE users (
id int NOT NULL AUTO_INCREMENT,
first_name varchar(255),
last_name varchar(255) NOT NULL,
```

EXAMPLE 2 (MYSQL)

```
ALTER TABLE users
ADD PRIMARY KEY (first_name);
```

```
address varchar(255).
email varchar(255).
PRIMARY KEY (id)
);
```

WILDCARDS

DATA TYPE	DESCRIPTION
CREATE INDEX	Creates an index named 'idx_test' on the first_name and surname columns of the users table. In this instance, duplicate values are allowed. CREATE INDEX idx_test ON users (first_name, surname);
CREATE UNIQUE INDEX	Creates an index named "idx_test' on the first name and surname columns of the users table. In this instance, duplicate values are allowed. CREATE UNIQUE INDEX idx_test ON users (first_name, surname);
DROP INDEX	Creates an index named "idx_test' on the first name and surname columns of the users table. In this instance, duplicate values are allowed. ALTER TABLE users DROP INDEX idx_test;

VIEWS

CREATING VIEWS

```
CREATE VIEW priority_users AS
SELECT * FROM users
WHERE country = United Kingdom;
```

```
SELECT * FROM [priority_users);
```

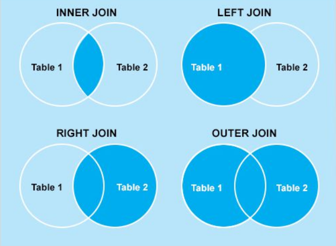
REPLACING VIEWS

```
CREATE OR REPLACE VIEW [priority_users] AS
SELECT * FROM users
WHERE country = 'United Kingdom' OR country="USA';
```

DELETING VIEWS

```
DROP VIEW priority_users;
```

JOINS



ORDERS

id	first_name	Last_name	address	email
1	Lube	Harison	1640, Kjetil Homme ...	Lube@153....
2	Healer	Reynolds	742, Norway, Denmark.	heal132@hot......
3	Simpson	Chekson	7, Nova Scotia.....	Simpson76@....
4	Chekson	Simpson	15, Santo Domingo....	Checkson80@....
5	Oliver	Harison	1640, San Salvador..	oliver5715@....
6	jones	Gabet	598, Caracas, 1010 ...	jones547@....
7	Micheal	Johnson	12, Western Michigan..	Micheal0017@....
8	Thomes	Smith	342, Mary Jones Station	smith098@....
9	Robyn	Gabet	598, Monte, Trigo..	robyn65478@....
10	Byony	Brown	165, First Ave. Usa..	byony8754@....

ORDERS

id	user_id	product_id	agent_logged
1	5	196	0
2	4	32	1
3	6	310	0
4	10	196	1
5	1	67	1
6	1	341	1
7	1	875	0
8	9	3	1
9	5	23	1
10	8	196	1

PROUDCTS

id	name	description	stock_count	price
102	Cartono..	Why	0	14,99
23	Cardbor..	Dec	1	3.49
3	Smart..	NULL	1	24.99
32	Troast 33..	Die	4	09.50
275	A4..	berta	5	4.99
436	Pack of 50.	you	5	12.99
341	Set of 25..	Modo	2	4.99
67	Large Car..	Pack	10	12.99
196	10, XP..	Hay que	10	15.99
310	Set of 35 ..	Cetta	10	2.99

PROUDCTS

id	name	description	stock_count	price
102	Cartono..	Why	0	14,99
23	Cardbor..	Dec	1	3.49
3	Smart..	NULL	1	24.99
32	Troast 33..	Die	4	09.50
275	A4..	berta	5	4.99
436	Pack of 50.	you	5	12.99
341	Set of 25..	Modo	2	4.99
67	Large Car..	Pack	10	12.99
196	10, XP..	Hay que	10	15.99
310	Set of 35 ..	Cetta	10	2.99

```
SELECT orders.id, users.first_name, users.surname, products.name as
'product name

FROM orders

INNER JOIN users on orders.user_id = users.id

INNER JOIN products on orders.product_id = products.id;
```

INNER JOIN RESULT SET

id	first_name	surname	product name
1	Oliver	Harison	10 X Plastic.....
2	Claire	Simpson	TripLast 33...
3	James	Gilbert	StorePac 5...
4	Bryony	Brown	10 X Plasti....
5	Luke	Harison	Large Care....
6	Luke	Harison	Set of 2 S...
7	Luke	Harison	A4 Storage....
8	Robyn	Gilbert	SmartMo...
9	Oliver	Harrison	Cardboar...
10	Thomas	Smith	10 X Plasti...