

```

USE book_shop;

CREATE TABLE book
(
book_id INT NOT NULL AUTO_INCREMENT,
title VARCHAR(100),
author_fname VARCHAR(100),
author_lname VARCHAR(100),
released_year INT,
stock_quantity INT,
pages INT,
PRIMARY KEY(book_id)
);

INSERT INTO book(title, author_fname, author_lname, released_year, stock_quantity, pages)
VALUES
('The Namesake', 'Jhumpa', 'Lahiri', 2000, 32, 291),
('Nore Nythology', 'Neil', 'Gaiman', 2016, 43, 304),
('American Gods', 'Neil', 'Gaiman', 2001, 12, 465),
('Ingterpreter of Maladies', 'Jhumpa', 'Lahiri', 1996, 97, 198),
('A Hologram for the King: A Novel', 'Dave', 'Chabon', 2012, 54, 352),
('The Circle', 'David', 'Eggers', 2013, 26, 504),
('The Amazing Adventures of Kavalier & Clay', 'Micheal', 'Chabon', 2000, 68, 634),
('Just Kids', 'Patti', 'Smith', 2010, 55, 304),
('A Heartbreaking Work of Straggering Genius', 'Dave', 'Eggers', 2001, 14, 437),
('Coraline', 'Neil', 'Gaiman', 2003, 100, 208),
('What We Talk About When We Talk About Love: Stories', 'Raymond', 'Carver', 1981, 23, 564);

SELECT * FROM book;

```

"SUBSTRING"

```

SELECT SUBSTRING('HELLO WORLD',3,7);

```

```
SELECT SUBSTRING('HELLO WORLD',7);
```

```
SELECT SUBSTRING('HELLO WORLD',-3);
```

```
SELECT*FROM book;
```

```
SELECT title FROM book;
```

```
SELECT SUBSTRING(title,1,10) AS short FROM book;
```

```
SELECT CONCAT SUBSTR(title,1,10)'...' FROM book;
```

```
SELECT  
CONCAT  
(  
SUBSTR(title,1,10),  
'...' )AS 'short title'  
FROM book;
```

```
SELECT  
CONCAT(title,1,10),  
'...' AS 'short title'  
FROM book;
```

"REPLACE"

```
SELECT REPLACE('HELLO WORLD','HELL',5677);
```

'cheese bread coffe milk'

```
SELECT REPLACE('cheese bread coffe milk', ' ', ' ' and '');
```

```
SELECT SUBSTRING(REPLACE(title, 'e', '3'),1,10) AS 'weird string' FROM book;
```

"REVERSE"

```
SELECT REVERSE('HELLO WORLD')
```

```
SELECT CONCAT('WOOF', REVERSE('WOOF'));
```

```
SELECT CONCAT(author_fname, REVERSE(author_fname)) FROM book;
```

"CHAR LENGTH"

```
SELECT CHAR_LENGTH('HELLO WORLD');
```

```
SELECT author_fname, CHAR_LENGTH(author_fname) FROM book;
```

```
SELECT CONCAT(author_fname, ' is ', CHAR_LENGTH(author_fname), ' characters long') FROM book;
```

"UPPER AND LOWER"

```
SELECT UPPER('Hello World');
```

```
SELECT LOWER('Hello World');
```

```
SELECT UPPER(title) FROM book;
```

```
SELECT CONCAT('MY FAVOURITE BOOK IS', UPPER(title)) FROM book;
```

```
INSERT INTO books(title, author_fname, author_lname, released_year, stock_quantity, pages)
VALUES ('10% Happier', 'Dan', 'Harris', 2014, 29, 256),
      ('fake book', 'Freida', 'Harris', 2001, 287, 428),
      ('Lincin In The Bardo', 'George', 'Saunders', 2017, 1000, 367);
SELECT * FROM books
```

```
SELECT author_fname FROM books;
```

"DISTINCT"

```
SELECT DISTINCT author_fname FROM books;
```

```
SELECT DISTINCT released_year FROM books;
```

```
SELECT DISTINCT CONCAT(author_fname, ' ', author_lname AS 'short' FROM books;
```

```
SELECT DISTINCT author_fname, author_lname FROM books;
```

```
SELECT CONCAT('WOOF', REVERSE('WOOF')) AS NAME;
```

"ORDER BY"

```
SELECT author_lname FROM books;
```

```
SELECT author_lname FROM books ORDER BY author_lname;
```

```
SELECT title FROM books ORDER BY title DESC;
```

```
SELECT author_lname, author_fname FROM books ORDER BY author_lname, author_fname
```

```
SELECT released_year FROM book ORDER BY released_year DESC;
```

```
SELECT released_year FROM book ORDER BY released_year ASC;
```

```
SELECT title, author_fname, author_lname FROM books ORDER BY 2;
```

"LIMIT"

```
SELECT title FROM books LIMIT 3;
```

```
SELECT title, released_year FROM books ORDER BY title, released_year DESC LIMIT 5;
```

"LIKE"

```
SELECT title, author_fname FROM books WHERE author_fname LIKE '%da%';
```

```
SELECT title FROM books WHERE title LIKE '%the%';
```

```
SELECT title FROM books WHERE title LIKE 'the%';
```

```
SELECT title, stock_quantity FROM book WHERE stock_quantity LIKE '____';
```

"COUNT"

```
SELECT * FROM book;
```

```
SELECT COUNT(*) FROM book;
```

```
SELECT * FROM book;
```

```
SELECT DISTINCT author_fname FROM book;
```

```
SELECT COUNT(author_fname) FROM book;
```

```
SELECT COUNT(DISTINCT author_fname) FROM book;
```

```
SELECT title FROM book WHERE title LIKE '%the%';
```

```
SELECT COUNT(DISTINCT title) FROM book WHERE title LIKE '%the%';
```

"GROUP BY"

```
SELECT title,author_fname FROM book;
```

```
SELECT title,author_lname FROM books GROUP BY author_lname;
```

```
SELECT title, author_lname, author_fname, COUNT(*) FROM books GROUP BY author_fname,  
author_lname;
```

```
SELECT released_year, COUNT(*) FROM book GROUP BY released_year
```

```
SELECT CONCAT('in', released_year, ', ', COUNT(*), 'book(s) released') AS YEAR FROM book GROUP BY  
released_year;
```

"MIN AND MAX"

```
SELECT MIN(released_year) FROM books;
```

```
SELECT MIN(pages) FROM books;
```

```
SELECT MIN(pages), title FROM books;
```

```
SELECT title, pages FROM books
```

```
WHERE pages=(SELECT MAX(pages) FROM books);
```

```
SELECT title, MAX(pages) FROM books;
```

```
SELECT title, pages FROM books
```

```
ORDER BY pages DESC LIMIT 1;
```

```
SELECT CONCAT(author_fname, ' ', author_lname) AS AUTHORS, MAX(pages) AS 'longest' FROM  
book GROUP BY author_fname, author_lname;
```

"SUM"

```
SELECT SUM(pages) FROM book;
```

```
SELECT SUM(released_year) FROM book;
```

```
SELECT author_fname, author_lname, SUM(pages)
```

```
FROM book
```

```
GROUP BY author_fname, author_lname;
```

"AVG"

```
SELECT AVG(released_year) FROM book;
```

```
SELECT AVG(pages) FROM book;
```

```
SELECT released_year, AVG(pages) FROM book GROUP BY released_year;
```

```
SELECT released_year, AVG(pages) FROM book GROUP BY released_year;
```

```
SELECT released_year, AVG(pages) FROM book GROUP BY released_year;
```

```
SELECT author_fname, author_lname, AVG(pages) FROM book GROUP BY author_fname,  
author_lname;
```

"DATATYPES"

Char and varchar

Decimal

float and double

date,time and datetime

curdate, curtime and now

formatting dates

date math

timestamps

“CHAR AND VACHAR”

```
CREATE DATABASE testing;
```

```
USE testing;
```

```
CREATE TABLE animal
```

```
(
```

```
NAME CHAR(5),
```

```
breed VARCHAR(10)
```

```
);
```

```
INSERT INTO animal(NAME, breed)
```

```
VALUES('zibra', 'mincho'),
```

```
('lion', 'chibo');
```

```
SELECT*FROM animal;
```

“DECIMAL”

```
CREATE TABLE items
```

```
(
```

```
price DECIMAL(5,2)
```

```
);
```

```
INSERT INTO items VALUES(7);
```

```
INSERT INTO items VALUES(47);
```



```
INSERT INTO items VALUES(347.00000);  
SELECT*FROM items;
```

```
CREATE TABLE items  
(  
price DECIMAL(5,2)  
);  
INSERT INTO items VALUES(7);  
INSERT INTO items VALUES(47);  
INSERT INTO items VALUES(347.00000);  
SELECT*FROM items;
```

"FLOAT"

```
CREATE TABLE animals1(price FLOAT);  
INSERT INTO animals1 VALUES(77676.00);  
INSERT INTO animals1 VALUES(776776876.877564);  
SELECT*FROM animals1;
```

"DOUBLE"

```
CREATE TABLE animals1(price DOUBLE);  
INSERT INTO animals1 VALUES(7767678686564.00);  
INSERT INTO animals1 VALUES(776779878686779.877564);  
SELECT*FROM animals1;
```

"DATE, TIME AND DATETIME"

```
CREATE TABLE users  
(
```

```
NAME VARCHAR(100),
birthday DATE,
birthtime TIME,
birthdt DATETIME
);
INSERT INTO users(NAME, birthday, birthtime, birthdt)
VALUES('pandu', '1999-10-13', '14:25:58', '1999-10-13 14:25:58'),
('panndu', '2000-1-10', '11:2:58', '2000-1-10 11:2:58');
SELECT*FROM users;
```

"CURDATE, CURTIME AND NOW"

```
SELECT CURDATE();
SELECT CURTIME();
SELECT NOW();
INSERT INTO users(NAME, birthday, birthtime, birthdt)
VALUES('microwave', CURDATE(), CURTIME(), NOW());
SELECT * FROM users;
DELETE FROM users WHERE NAME='microwave';
SELECT * FROM users;
```