

Mysql database, data type

Mysql ga ulanish

```
💡 terminal yoki cmd orqali

mysql -u root -p
```

Databaselar ro'yxati

```
SHOW DATABASES;
```

Database qo'shish

```
CREATE DATABASE IF NOT EXISTS magazin;
```

Databasedan foydalanish

```
USE magazin;
```

Databaseni o'chirish

```
DROP DATABASE IF EXISTS magazin;
```

MySQL DATA TYPES			
DATE TYPE	SPEC	DATA TYPE	SPEC
CHAR	String (0 - 255)	INT	Integer (-2147483648 to 2147483647)
VARCHAR	String (0 - 255)	BIGINT	Integer (-9223372036854775808 to 9223372036854775807)
TINYTEXT	String (0 - 255)	FLOAT	Decimal (precise to 23 digits)
TEXT	String (0 - 65535)	DOUBLE	Decimal (24 to 53 digits)
BLOB	String (0 - 65535)	DECIMAL	"DOUBLE" stored as string
MEDIUMTEXT	String (0 - 16777215)	DATE	YYYY-MM-DD
MEDIUMBLOB	String (0 - 16777215)	DATETIME	YYYY-MM-DD HH:MM:SS
LONGTEXT	String (0 - 4294967295)	TIMESTAMP	YYYYMMDDHHMMSS
LONGBLOB	String (0 - 4294967295)	TIME	HH:MM:SS
TINYINT	Integer (-128 to 127)	ENUM	One of preset options
SMALLINT	Integer (-32768 to 32767)	SET	Selection of preset options
MEDIUMINT	Integer (-8388608 to 8388607)	BOOLEAN	TINYINT(1)
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Raqamli ma'lumotlar turi (int)

Type	Storage (Bytes)	Minimum Value (Signed/Unsigned)	Maximum Value (Signed/Unsigned)
TINYINT	1	-128	127
		0	255
SMALLINT	2	-32768	32767
		0	65535
MEDIUMINT	3	-8388608	8388607
		0	16777215
INT	4	-2147483648	2147483647
		0	4294967295
BIGINT	8	-9223372036854775808	9223372036854775807
		0	18446744073709551615

```
CREATE TABLE kitoblar ( kitob_id INT AUTO_INCREMENT PRIMARY KEY, nomi VARCHAR(255) );
```

```
INSERT INTO kitoblar(nomi) VALUES ('Salom dunyo'), ('Maugli'), ('Pakaxontas');
```

💡 **INT UNSIGNED** - bo'lsa manfiy sonlarni qabul qilmaydi

```
CREATE TABLE kitoblar ( id INT AUTO_INCREMENT, nomi VARCHAR(255) NOT NULL, bet INT UNSIGNED );
```

Matn ko'rinishidagi ma'lumotlar turlari (string)

CHAR(size)	Maximum size of 255 characters.
VARCHAR(size)	Maximum size of 255 characters.
TINYTEXT(size)	Maximum size of 255 characters.
TEXT(size)	Maximum size of 65,535 characters.

VARCHAR

maximum character count - 255

```
CREATE TABLE kitoblar ( id INT AUTO_INCREMENT, nomi VARCHAR(255) NOT NULL, bet INT UNSIGNED, PRIMARY KEY (id) ); INSERT INTO kitoblar(nomi, bet) VALUES('Bu kitob nomi', 5); Create table temp (City CHAR(10), Street VARCHAR(10)); Insert into temp values('Pune','Oxford'); select length(city), length(street) from temp; length(City) Length(street) 10 6 CHAR - Belgilangan uzunlikdagi simvollar satrini saqlash uchun ishlatiladi. VARCHAR - O'zgaruvchan uzunlikdagi ma'lumotlarni saqlash uchun foydalaniladi
```

TEXT va TINYTEXT

VARCHAR tipida default qiymat berish mumkin TEXT va TINYTEXT da default qiymat berib bo'lmaydi

Date va Time

DATE	Values range from '1000-01-01' to '9999-12-31'.
DATETIME	Values range from '1000-01-01 00:00:00' to '9999-12-31 23:59:59'.
TIMESTAMP(m)	Values range from '1970-01-01 00:00:01' UTC to '2038-01-19 03:14:07' TC.
TIME	Values range from '-838:59:59' to '838:59:59'.

DATE

```
CREATE TABLE people ( id INT AUTO_INCREMENT PRIMARY KEY, first_name VARCHAR(50) NOT NULL, last_name VARCHAR(50) NOT NULL, birth_date DATE NOT NULL ); SELECT NOW(); //Result : 2019-12-10 05:59:38 SELECT DATE(NOW()); //Result : 2019-12-10 SELECT CURDATE(); //Result : 2019-12-10 SELECT DAY('2019-12-10') kun, MONTH('2019-12-10') oy, QUARTER('2019-12-10') yil_choragi, YEAR('2019-12-10') yil
```

TIME

```
CREATE TABLE dars ( id INT PRIMARY KEY AUTO_INCREMENT, name VARCHAR(255) NOT NULL, start_at TIME, end_at TIME ); INSERT INTO dars(name,start_at,end_at) VALUES('Veb','19:00:00','21:00:00');
```

TIMESTAMP

```

TIMESTAMP - bu turdagi ustunga hozirgi sana va vaqtni UTC bilan saqlash mumkin
CREATE TABLE test_timestamp ( t1 TIMESTAMP );
INSERT INTO test_timestamp(t1) VALUES('2020-01-11 01:00:01');
'1970-01-01 00:00:01' UTC - '2038-01-19 03:14:07' UTC
CREATE TABLE categories ( id INT AUTO_INCREMENT PRIMARY KEY, name VARCHAR(255) NOT NULL, created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP );

```

DATETIME

```

CREATE TABLE test_dt ( id INT AUTO_INCREMENT PRIMARY KEY, created_at DATETIME );
INSERT INTO test_dt(created_at) VALUES('2019-12-10 14:29:36');

```

Large Object Data Types (LOB) Data Types:

Data Type Syntax	Maximum Size
TINYBLOB	Maximum size of 255 bytes.
BLOB(size)	Maximum size of 65,535 bytes.
MEDIUMBLOB	Maximum size of 16,777,215 bytes.
LONGTEXT	Maximum size of 4gb or 4,294,967,295 characters.

JSON

```

CREATE TABLE table_name ( ... json_column_name JSON, ... );
JSON turidagi ustunga DEFAULT qiymat berish mumkin emas
INDEX qilish imkoni yo'q
CREATE TABLE events( id int auto_increment primary key, event_name varchar(255), visitor varchar(255), properties json, browser json );
INSERT INTO events(event_name, visitor, properties, browser) VALUES ( 'pageview', '1', '{ "page": "/" }', '{ "name": "Safari", "os": "Mac", "resolution": { "x": 1920, "y": 1080 } }' ), ( 'pageview', '2', '{ "page": "/contact" }', '{ "name": "Firefox", "os": "Windows", "resolution": { "x": 2560, "y": 1600 } }' ), ( 'pageview', '1', '{ "page": "/products" }', '{ "name": "Safari", "os": "Mac", "resolution": { "x": 1920, "y": 1080 } }' ), ( 'purchase', '3', '{ "amount": 200 }', '{ "name": "Firefox", "os": "Windows", "resolution": { "x": 1600, "y": 900 } }' ), ( 'purchase', '4', '{ "amount": 150 }', '{ "name": "Firefox", "os": "Windows", "resolution": { "x": 1280, "y": 800 } }' ), ( 'purchase', '4', '{ "amount": 500 }', '{ "name": "Chrome", "os": "Windows", "resolution": { "x": 1680, "y": 1050 } }' );
JSON ustunlaridan qiymatlarni olish uchun (->>) operatoridan foydalaniladi
SELECT id, browser->'$.name' browser FROM events;
https://www.digitalocean.com/community/tutorials/working-with-json-in-mysql

```


BOOLEAN

```

CREATE TABLE tasks ( id INT PRIMARY KEY AUTO_INCREMENT, title VARCHAR(255) NOT NULL, completed BOOLEAN );
TRUE yoki FALSE qiymatlarni qabul qiladi.

```

DECIMAL

SQL  Copy

```

CREATE TABLE materials ( id INT AUTO_INCREMENT PRIMARY KEY, description VARCHAR(255), cost DECIMAL(19 , 4 ) NOT NULL );
INSERT INTO materials(description, cost) VALUES('Bicycle', 500.34), ('Seat',10.23), ('Break',5.21);
DECIMAL(13,4) - jami 13 ta son qatnashishi mumkin, va shundan 4 tasi verguldan keyingi sonlar bo'lishi mumkin.
999999999.9999 - yuqoridagining max qiymati DECIMAL(6,4) - -99.9999 to 99.9999
UNSIGNED DECIMAL(6,4) - 0.0000 to 99.9999

```