



List of Constraints in MySQL

- NOT NULL
- UNIQUE
- DEFAULT
- CHECK
- FOREIGN KEY
- PRIMARY KEY



Data Table without Constraints

Id	Name	Age	Gender	Phone	City
1	Ram Kumar	17	Male	4022155	Agra
2	Salman Khan	19		4033244	Agra
3	Meera Khan	20	Female	4022155	Agra
	Sarita Kumari	18	Female	4066899	Agra
5	Anil Kapoor	19	Male	4188733	Agra



Data Table without Constraints

Id	Name	Age	Gender	Phone	City
1	Ram Kumar	17	Male	4022155	Agra
2	Salman Khan	19		4033244	Agra
3	Meera Khan	20	Female	4022155	Agra
	Sarita Kumari	18	Female	4066899	Agra
5	Anil Kapoor	19	Male	4188733	Agra

NOT NULL

UNIQUE

CHECK (age >= 18)

NOT NULL

UNIQUE

DEFAULT 'Agra'



Create Table Syntax

```
CREATE TABLE table_name (  
    id INT NOT NULL UNIQUE,  
    name VARCHAR(50) NOT NULL,  
    age INT NOT NULL CHECK (age >= 18),  
    gender VARCHAR(10) NOT NULL,  
    phone VARCHAR(10) NOT NULL UNIQUE,  
    city VARCHAR(10) NOT NULL DEFAULT 'Agra',  
);
```



XAMPP Control Panel v3.2.4 [Compiled: Jun 5th 2019]

XAMPP Control Panel v3.2.4

Modules

Service	Module	PID(s)	Port(s)	Actions
<input type="checkbox"/>	Apache	2992 7920	80, 443	Stop Admin Config Logs
<input type="checkbox"/>	MySQL	8892	3306	Stop Admin Config Logs
<input type="checkbox"/>	FileZilla			Start Admin Config Logs
<input type="checkbox"/>	Mercury			Start Admin Config Logs
<input type="checkbox"/>	Tomcat			Start Admin Config Logs

1:17:07 AM [main] Checking for prerequisites
1:17:08 AM [main] All prerequisites found
1:17:08 AM [main] Initializing Modules
1:17:08 AM [main] The Tomcat module is disabled
1:17:08 AM [main] Starting Check-Timer
1:17:08 AM [main] Control Panel Ready
1:17:10 AM [Apache] Attempting to start Apache app...
1:17:10 AM [Apache] Status change detected: running
1:17:10 AM [mysql] Attempting to start MySQL app...
1:17:11 AM [mysql] Status change detected: running

Config Netstat Shell Explorer Services Help Quit

Navigator

SCHEMAS

Filter objects

- phpmyadmin
- student
 - Tables
 - Views
 - Stored Procedures
 - Functions
- testing

Administration Schemas Information

No object selected

Query 1 x personal Limit to 1000 n

```
1 • CREATE TABLE personal(  
2     id INT NOT NULL UNIQUE,  
3     name VARCHAR(50) NOT NULL,  
4     age INT NOT NULL CHECK (age >= 18),  
5     gender VARCHAR(1) NOT NULL,  
6     phone VARCHAR(10) NOT NULL UNIQUE,  
7     city VARCHAR(15) NOT NULL DEFAULT 'Agra'  
8 );  
9
```

Output

Action Output

#	Time	Action	Message
1	02:28:57	SELECT * FROM student.personal LIMIT 0, 1000	5 row(s) returned
2	02:30:06	INSERT INTO personal (id, name, birth_date, phone) VALUES (6, "Amir Khan", "1992-02-07", "94753344881")	1 row(s) affected
3	02:30:14	SELECT * FROM student.personal LIMIT 0, 1000	6 row(s) returned
4	02:31:15	DROP TABLE "student"."personal"	0 row(s) affected
5	02:35:17	CREATE TABLE personal(id INT NOT NULL UNIQUE, name VARCHAR(50) NOT NULL, age INT NOT N...	0 row(s) affected



How to show data from Tables with SQL ?

Name	Age	Gender
Ram Kumar	19	Male
Salman Khan	22	Male
Meera Khan	21	Female
Sarita Kumari	18	Female
Anil Kapoor	22	Male

SELECT Command



SELECT Syntax

```
SELECT column1, column2, column3, ....  
FROM table_name;
```




SELECT Syntax

```
SELECT column1, column2, column3, ....  
FROM table_name;
```

```
SELECT *  
FROM table_name;
```

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Administration Schemas

Information

No object selected

Query 1 x

Limit to 1000 rows

1 • `SELECT * FROM personal;`

Result Grid

	id	name	age	gender	phone	city
1	Ram Kumar	19	M	4022155	Agra	
2	Sarita Kumari	21	F	4034421	Delhi	
3	Salman Khan	20	M	4056221	Agra	
4	Juhi Chawla	18	F	4089821	Bhopal	
5	Anil Kapoor	22	M	4025221	Agra	
6	John Abraham	21	M	4033776	Delhi	

personal 1 x

Output

Action Output

#	Time	Action	Message
1	02:23:56	SELECT * FROM personal LIMIT 0, 1000	6 row(s) returned

Navigator

SCHEMAS

Filter objects

- phpmyadmin
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Administration Schemas

Information

No object selected

Query 1 x

Limit to 1000 rows

```
1 • SELECT id, name, phone FROM personal;
```

Result Grid

	id	name	phone
1	Ram Kumar	4022155	
2	Sarita Kumari	4034421	
3	Salman Khan	4056221	
4	Juhi Chawla	4089821	
5	Anil Kapoor	4025221	
6	John Abraham	4033776	

personal 2 x

Output

Action Output

#	Time	Action	Message
1	02:23:56	SELECT * FROM personal LIMIT 0, 1000	6 row(s) returned
2	02:24:59	SELECT id, name, phone FROM personal LIMIT 0, 1000	6 row(s) returned

Navigator

SCHEMAS

Filter objects

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Administration Schemas

Information

No object selected

Query 1

Limit to 1000 rows

1 • SELECT id AS Id, name AS Student , phone AS Phone FROM personal;

Result Grid

	Id	Student	Phone
1	Ram Kumar	4022155	
2	Sarita Kumari	4034421	
3	Salman Khan	4056221	
4	Juhi Chawla	4089821	
5	Anil Kapoor	4025221	
6	John Abraham	4033776	

personal 2 x

Output

Action Output

#	Time	Action	Message
1	02:23:56	SELECT * FROM personal LIMIT 0, 1000	6 row(s) returned
2	02:24:59	SELECT id, name, phone FROM personal LIMIT 0, 1000	6 row(s) returned
3	02:26:59	SELECT id AS Id, name AS Student , phone AS Phone FROM personal LIMIT 0, 1000	6 row(s) returned

Navigator

SCHEMAS

Filter objects

phmyadmin

student

Tables

personal

Columns

- id
- name
- age
- gender
- phone
- city

Indexes

Foreign Keys

Triggers

Views

Stored Procedures

Functions

test

Administration Schemas

Information

No object selected

Query 1

Limit to 1000 rows

1 • SELECT id AS Id, name AS "Student Name" , phone AS Phone FROM personal;

Result Grid

	Id	Student	Phone
1	1	Ram Kumar	4022155
2	2	Sarita Kumari	4034421
3	3	Salman Khan	4056221
4	4	Juhi Chawla	4089821
5	5	Anil Kapoor	4025221
6	6	John Abraham	4033776

personal 3 x

Output

Action Output

#	Time	Action	Message
1	02:23:56	SELECT * FROM personal LIMIT 0, 1000	6 row(s) returned
2	02:24:59	SELECT id, name, phone FROM personal LIMIT 0, 1000	6 row(s) returned
3	02:26:59	SELECT id AS Id, name AS Student , phone AS Phone FROM personal LIMIT 0, 1000	6 row(s) returned



SELECT Data with WHERE Clause

Name	Age	Gender
Ram Kumar	19	Male
Salman Khan	22	Male
Meera Khan	21	Female
Sarita Kumari	18	Female
Anil Kapoor	22	Male



Name	Age	Gender
Meera Khan	21	Female
Sarita Kumari	18	Female



Name	Age	Gender
Ram Kumar	19	Male
Sarita Kumari	18	Female



SELECT with WHERE Clause Syntax

```
SELECT column1, column2, column3, ....  
FROM table_name  
WHERE condition;
```



SELECT with WHERE Clause Syntax

```
SELECT column1, column2, column3, ....  
FROM table_name  
WHERE condition;
```




WHERE Comparison Operators

Operator	Description
=	Equal
>	Greater than
<	Less than
>=	Greater than or equal
<=	Less than or equal
<> Or !=	Not equal.
BETWEEN	Between a certain range
LIKE	Search for a pattern
IN	To specify multiple possible values for a column

Navigator

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Administration Schemas Information

No object selected

Query 1

Limit to 1000 rows

```
1 • SELECT * FROM personal
2 WHERE gender = "F";
```

Result Grid

	id	name	age	gender	phone	city
▶	2	Sarita Kumari	21	F	4034421	Delhi
▶	4	Juhi Chawla	18	F	4089821	Bhopal
•						

personal 5 x

Output

Action Output

#	Time	Action	Message
1	02:23:56	SELECT * FROM personal LIMIT 0, 1000	6 row(s) returned

Navigator

SCHEMAS

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Administration Schemas

Information

No object selected

Query 1

Limit to 1000 rows

```
1 • SELECT * FROM personal
2 WHERE gender = "M";
```

Result Grid

	id	name	age	gender	phone	city
▶	1	Ram Kumar	19	M	4022155	Agra
	3	Salman Khan	20	M	4056221	Agra
	5	Anil Kapoor	22	M	4025221	Agra
	6	John Abraham	21	M	4033776	Delhi
•						

personal 6 x

Output

Action Output

#	Time	Action	Message
1	02:23:56	SELECT * FROM personal LIMIT 0, 1000	6 row(s) returned

Navigator

SCHEMAS

Filter objects

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 - gender
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Administration Schemas

Information

Query 1

Limit to 1000 rows

```
1 • SELECT * FROM personal
2 WHERE age < 20;
```

Result Grid

	id	name	age	gender	phone	city
▶	1	Ram Kumar	19	M	4022155	Agra
	4	Juhi Chawla	18	F	4089821	Bhopal
*						

personal 7 x

Output

Action Output

#	Time	Action	Message
1	02:23:56	SELECT * FROM personal LIMIT 0, 1000	6 row(s) returned