SQL Learning from scratch

-- set 7

-- NULL
-- DROP
-- NOT NULL

sukhaa02

Query

- -- 1. write a query to get all employee
- CREATE Table EMP (
- EMP_ID int not null,
- FNAME char(50),
- LNAME char(50),
- Salary int,
- join_Date date,
- DEPT char(10),
- Gender char(6));

Messages
Commands completed successfully.

Completion time: 2023-06-15T16:20:18.0268217-04:00

sukhaa02

Printing the Schema

- -- Printing the schema of the Table
- SELECT * FROM information_schema.columns
- WHERE table_name = 'EMP';

- -- or

- EXEC sp_columns EMP;

⊞ Results ▦ Messages

	COLUMN_NAME	DATA_TYPE	TYPE_NAME	PRECISION	LENGTH	SCALE	RADIX	NULLABLE
1	EMP_ID	4	int	10	4	0	10	1
2	FNAME	1	char	50	50	NULL	NULL	1
3	LNAME	1	char	50	50	NULL	NULL	1
4	Salary	4	int	10	4	0	10	1
5	join_Date	-9	date	10	20	NULL	NULL	1
6	DEPT	1	char	10	10	NULL	NULL	1
7	Gender	1	char	6	6	NULL	NULL	1

Insertion with all values.

- INSERT into EMP
- (EMP_ID, LNAME, Salary, join_Date, DEPT, Gender) values
- (2, 'Vikas', 'Ahlawat', 600000.00, '2013-FEb-15', 'IT', 'Male');

▦ Results ▤ Messages

	EMP_ID	FNAME	LNAME	Salary	join_Date	DEPT	Gender
1	2	Vikas	Ahlawat	600000	2013-02-15	IT	Male

sukhaa02

First_name NotEntered

- INSERT into EMP
- (EMP_ID, LNAME, Salary, join_Date, DEPT, Gender) values
- (2, 'Ahlawat', 600000.00, '2013-FEb-15', 'IT', 'Male');

⊞ Results 📄 Messages

	EMP_ID	FNAME	LNAME	Salary	join_Date	DEPT	Gender
1	2	Vikas	Ahlawat	600000	2013-02-15	IT	Male
2	2	NULL	Ahlawat	600000	2013-02-15	IT	Male

Last_name NotEntered

- INSERT into EMP
- (EMP_ID, FNAME, Salary, join_Date, DEPT, Gender) values
- (2, 'Ahlawat', 600000.00, '2013-FEb-15', 'IT', 'Male');

	EMP_ID	FNAME	LNAME	Salary	join_Date	DEPT	Gender
1	2	Vikas	Ahlawat	600000	2013-02-15	IT	Male
2	2	NULL	Ahlawat	600000	2013-02-15	IT	Male
3	2	Ahlawat	NULL	600000	2013-02-15	IT	Male

NULL

- If we skipped a value it will turns to NULL.

- In order to make it mandatory

- We can use NOT NULL

- NOT NULL makes a condition to enter the specific value to execute the transaction.

	EMP_ID	FNAME	LNAME	Salary	join_Date	DEPT	Gender
1	2	Vikas	Ahlawat	600000	2013-02-15	IT	Male
2	2	NULL	Ahlawat	600000	2013-02-15	IT	Male
3	2	Ahlawat	NULL	600000	2013-02-15	IT	Male

DROP Table

- We have to update the Table with the new condition. DROP Table

- DROP Table EMP;

Messages

Commands completed successfully.

Completion time: 2023-06-15T17:34:22.5776251-04:00

sukhaa02

CREATE NEW TABLE (NOT NULL)

- CREATE Table EMP (
- EMP_ID int,
- FNAME char(50) not null,
- LNAME char(50),
- Salary int,
- join_Date date,
- DEPT char(10),
- Gender char(6)
-);

Messages

Commands completed successfully.

Completion time: 2023-06-15T17:37:17.7283976-04:00

sukhaa02

Printing the Schema

- -- Printing the schema of the Table
- SELECT * FROM information_schema.columns
- WHERE table_name = 'EMP';

- -- or

- EXEC sp_columns EMP;

⊞ Results ▥ Messages

	COLUMN_NAME	DATA_TYPE	TYPE_NAME	PRECISION	LENGTH	SCALE	RADIX	NULLABLE
1	EMP_ID	4	int	10	4	0	10	1
2	FNAME	1	char	50	50	NULL	NULL	0
3	LNAME	1	char	50	50	NULL	NULL	1
4	Salary	4	int	10	4	0	10	1
5	join_Date	-9	date	10	20	NULL	NULL	1
6	DEPT	1	char	10	10	NULL	NULL	1
7	Gender	1	char	6	6	NULL	NULL	1

sukhaa02

First_name
NOT NULL

- INSERT into EMP
- (EMP_ID, FNAME, Salary, join_Date, DEPT, Gender) values
- (2, 'Ahlawat', 600000.00, '2013-FEb-15', 'IT', 'Male');

We got an err because we pass a null value

Messages

Msg 515, Level 16, State 2, Line 31
Cannot insert the value NULL into column 'FNAME', table 'ma
The statement has been terminated.

Completion time: 2023-06-15T17:43:53.9951679-04:00

First_name NOT NULL

- INSERT into EMP
- (EMP_ID, FNAME, LNAME, Salary, join_Date, DEPT, Gender) values
- (2, 'Vikas', 'Ahlawat', 600000.00, '2013-FEb-15', 'IT', 'Male');

We passed!!

Results | Messages

	EMP_ID	FNAME	LNAME	Salary	join_Date	DEPT	Gender
1	2	Vikas	Ahlawat	600000	2013-02-15	IT	Male

sukhaa02

Last_name
NOT NULL

- INSERT into EMP

- (EMP_ID, FNAME, Salary, join_Date, DEPT, Gender) values
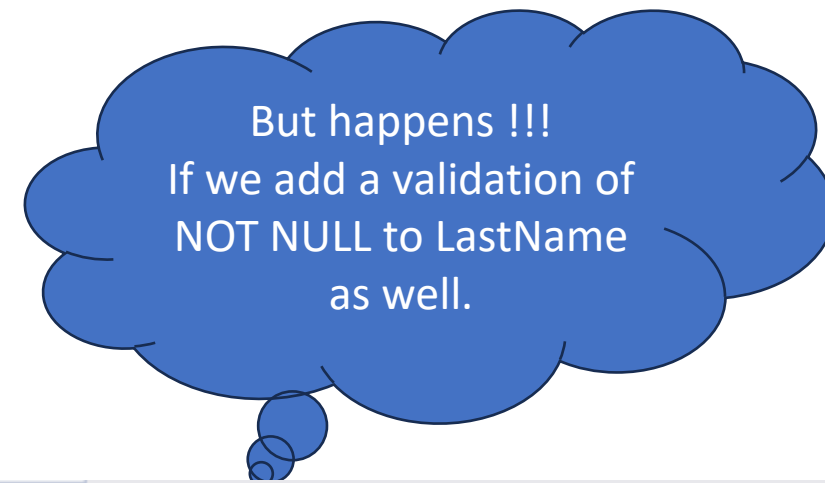
- (2, 'Vikas', 600000.00, '2013-FEb-15', 'IT', 'Male');

We passed!!
The LastName has no validation on the transaction.

⊞ Results   📑 Messages

	EMP_ID	FNAME	LNAME	Salary	join_Date	DEPT	Gender
1	2	Vikas	NULL	600000	2013-02-15	IT	Male

TABLE EMP (NOT NULL)

- CREATE Table EMP (
- EMP_ID int,
- FNAME char(50) not null,
- LNAME char(50)not null,
- Salary int,
- join_Date date,
- DEPT char(10),
- Gender char(6)
-);

But happens !!!
If we add a validation of
NOT NULL to LastName
as well.

Messages

Commands completed successfully.

Completion time: 2023-06-15T17:53:35.9751605-04:00

sukhaa02

Last_name NOT NULL

- INSERT into EMP
- (EMP_ID, FNAME, Salary, join_Date, DEPT, Gender) values
- (2, 'Vikas', 600000.00, '2013-FEb-15', 'IT', 'Male');

Messages

Msg 515, Level 16, State 2, Line 31
Cannot insert the value NULL into column 'LNAME', table
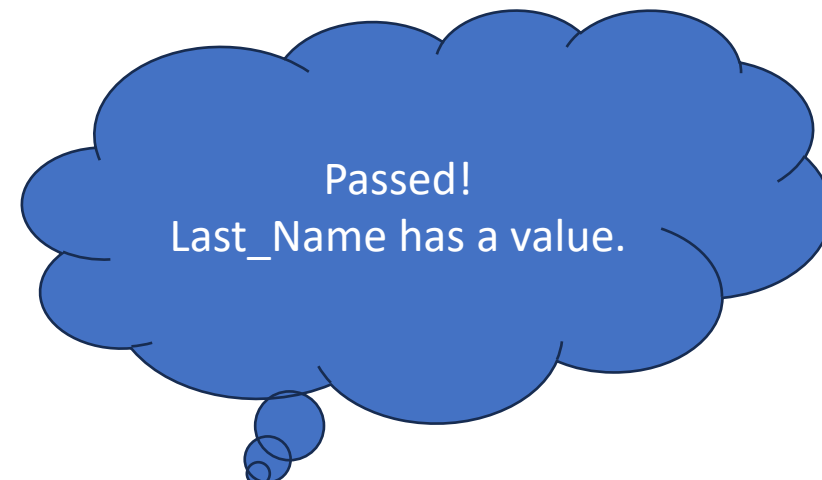The statement has been terminated.

Completion time: 2023-06-15T17:54:48.9944132-04:00

sukhaa02

Last_name NOT NULL

- INSERT into EMP
- (EMP_ID, FNAME, Lname, Salary, join_Date, DEPT, Gender) values
- (2, 'Vikas', 'Ahlawat', 600000.00, '2013-FEb-15', 'IT', 'Male');

Passed!
Last_Name has a value.

⊞ Results 🗐 Messages

	EMP_ID	FNAME	LNAME	Salary	join_Date	DEPT	Gender
1	2	Vikas	Ahlawat	600000	2013-02-15	IT	Male

sukhaa02

FirstName, Last_name NOT NULL

- INSERT into EMP
- (EMP_ID, Salary, join_Date, DEPT, Gender) values
- (2, 600000.00, '2013-FEb-15', 'IT', 'Male');

Messages
Msg 515, Level 16, State 2, Line 32
Cannot insert the value NULL into column 'FNAME', table
The statement has been terminated.

Completion time: 2023-06-15T17:59:18.4743700-04:00

FirstName, Last_name NOT NULL

- INSERT into EMP
- (EMP_ID, FNAME, Salary, join_Date, DEPT, Gender) values
- (2, 'Vikas', 600000.00, '2013-FEb-15', 'IT', 'Male');

Again err.
We passed the First_name.
But the Last_name is still required.

Messages

Msg 515, Level 16, State 2, Line 32
Cannot insert the value NULL into column 'LNAME', table
The statement has been terminated.

Completion time: 2023-06-15T18:01:08.3736945-04:00

sukhaa02

FirstName, Last_name NOT NULL

- INSERT into EMP
- (EMP_ID, FNAME, Lname, Salary, join_Date, DEPT, Gender) values
- (2, 'Vikas', 'Ahlawat', 600000.00, '2013-FEb-15', 'IT', 'Male');

Finally, the query executed.

	EMP_ID	FNAME	LNAME	Salary	join_Date	DEPT	Gender
1	2	Vikas	Ahlawat	600000	2013-02-15	IT	Male

sukhaa02

Conclusion

- When there is a not Null, the query will fail with an error of Null value.