

## CREATE TABLE table\_name ( column1 datatype, column2 datatype, column3 datatype,

How does the syntax of an ALTER statement look? ALTER TABLE table\_name ADD COLUMN column\_name data\_type column\_constraint; ALTER TABLE table\_name DROP COLUMN column\_name;

ALTER TABLE table\_name ALTER COLUMN column\_name SET DATA TYPE data\_type; ALTER TABLE table\_name **RENAME COLUMN** current\_column\_name **TO** new\_column\_name; How does the syntax of a TRUNCATE statement look?

## TRUNCATE TABLE table\_name;

How does the syntax of a DROP statement look?

Software Used in this Lab efficiently. access to Db2 on IBM Cloud, and you will need to follow this lab first: • Hands-on Lab: Sign up for IBM Cloud, Create Db2 service instance and Get started with the Db2 console

DROP TABLE table\_name;

In this lab, you will use IBM Db2 Database. Db2 is a Relational Database Management System (RDBMS) from IBM, designed to store, analyze and retrieve the data To complete this lab you will utilize a Db2 database service on IBM Cloud. If you did not already complete this lab task earlier in this module, you will not yet have Database Used in this Lab The databases used in this lab are internal databases.

**Objectives** After completing this lab, you will be able to:

• Create a new table in a database • Add, delete, or modify columns in an existing table • Remove all rows from an existing table without deleting the table itself • Delete an existing table in a database

**Exercise 1: CREATE** 

page. Click Run all.

CREATE TABLE PETSALE (

PET CHAR(20),

SALEDATE DATE

CREATE TABLE PET (

);

);

IBM **Db2 on Cloud** 

ID INTEGER NOT NULL,

PROFIT DECIMAL(6,2),

ID INTEGER NOT NULL,

ANIMAL VARCHAR(20),

Storage: 14%

QUANTITY INTEGER

□ - 5 C | «» AA | A | III | A CREATE TABLE PETSALE (

SALEPRICE DECIMAL(6,2),
PROFIT DECIMAL(6,2),

PET CHAR(20),

SALEDATE DATE

QUANTITY INTEGER

Run all Remember my last behavior

Run SQL page. Click Run all.

**INSERT** INTO PET VALUES

(3, 'Hamster', 2);

**SELECT** \* FROM PETSALE;

□ ▼ 5 C | ⟨/> A<sub>A</sub> | B<sub>A</sub> | Ū | B<sub>A</sub> INSERT INTO PETSALE VALUES

INSERT INTO PET VALUES

(3, 'Hamster', 2); SELECT \* FROM PETSALE;

(1, 'Cat',3),

E Storage: 14%

(1, 'Cat', 450.09, 100.47, '2018-05-29'),

(2, 'Dog', 666.66, 150.76, '2018-06-01'), (3, 'Parrot', 50.00, 8.9, '2018-06-04'), (4, 'Hamster', 60.60, 12, '2018-06-11'),

(5, 'Goldfish', 48.48, 3.5, '2018-06-14');

Remember my last behavior

Task A: ALTER using ADD COLUMN

**Exercise 2: ALTER** 

Run all.

**RUN SQL** 

**ALTER TABLE PETSALE** 

**SELECT** \* **FROM** PETSALE;

□ - 5 C | ALTER TABLE PETSALE ADD COLUMN QUANTITY INTEGER;

Run all Remember my last behavior

**SELECT** \* **FROM** PETSALE;

□ - 5 C | </>
AA | AB | Ū | AB

SELECT \* FROM PETSALE;

Storage: 14%

UPDATE PETSALE SET QUANTITY = 9 WHERE ID = 1; UPDATE PETSALE SET QUANTITY = 3 WHERE ID = 2;

UPDATE PETSALE SET QUANTITY = 2 WHERE ID = 3; UPDATE PETSALE SET QUANTITY = 6 WHERE ID = 4; UPDATE PETSALE SET QUANTITY = 24 WHERE ID = 5;

Remember my last behavior

Task B: ALTER using DROP COLUMN

IBM Db2 on Cloud

**RUN SQL** 

all.

**RUN SQL** 

**ALTER TABLE PETSALE** 

DROP COLUMN PROFIT;

**SELECT** \* **FROM** PETSALE;

□ · 5 C | · A A | A | | □ | A

Remember my last behavior

textbox of the Run SQL page. Click Run all.

**Storage: 14%** 

ALTER COLUMN PET SET DATA TYPE VARCHAR(20);

Remember my last behavior

**Schemas** ▼ Select All

Click Run all.

**ALTER TABLE PETSALE** 

**SELECT** \* **FROM** PETSALE;

□ • 5 C | ⟨/> A<sub>A</sub> | B<sub>A</sub> | Ū | B<sub>A</sub>

ALTER TABLE PETSALE RENAME COLUMN PET TO ANIMAL;

SELECT \* FROM PETSALE;

IBM **Db2 on Cloud** 

**RUN SQL** 

RENAME COLUMN PET TO ANIMAL;

**≡** Storage: 14%

Remember my last behavior

TRUNCATE TABLE PET IMMEDIATE;

**■** Storage: 14%

Remember my last behavior

textbox of the Run SQL page. Click Run all.

Storage: 14%

**Exercise 4: DROP** 

**DROP TABLE PET;** 

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DROP TABLE PET:

SELECT \* FROM PET;

**RUN SQL** 

Author(s)

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Changelog

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Other Contributor(s)

Version

1.1

1.0

**Changed by** 

Steve Ryan

Sandip Saha Joy

**SELECT** \* **FROM** PET;

□ ▼ 5 C | ⟨/> A<sub>A</sub> | Q | Ū | Z

**SELECT** \* **FROM** PET;

TRUNCATE TABLE PET IMMEDIATE;

SELECT \* FROM PET;

IBM **Db2 on Cloud** 

**Exercise 3: TRUNCATE** 

**▼** TPZ00692 2 tables

✓ DB2INST1 0 table

▼ SQL74730 0 table

**▼** ERRORSCHEMA 0 table

ST\_INFORMTN\_SCHEMA 0 table

✓ AUDIT 0 table

ALTER COLUMN PET SET DATA TYPE VARCHAR(20);

**ALTER TABLE PETSALE** 

**SELECT** \* **FROM** PETSALE;

□ · 5 C | ⟨/> A<sub>A</sub> | B<sub>A</sub> | Ū | B<sub>A</sub> ALTER TABLE PETSALE

SELECT \* FROM PETSALE;

IBM **Db2 on Cloud** 

**RUN SQL** 

\* Untitled - 1

Task C: ALTER using ALTER COLUMN

ALTER TABLE PETSALE

SELECT \* FROM PETSALE:

it to the textbox of the Run SQL page. Click Run all.

**UPDATE** PETSALE **SET** QUANTITY = **9 WHERE ID** = **1**;

**UPDATE** PETSALE **SET** QUANTITY = **3 WHERE ID** = **2**;

**UPDATE** PETSALE **SET** QUANTITY = 2 **WHERE ID** = 3;

**UPDATE** PETSALE **SET** QUANTITY = **6 WHERE ID** = **4**;

UPDATE PETSALE SET QUANTITY = 24 WHERE ID = 5;

Syntax assistant

SELECT \* FROM PETSALE;

IBM **Db2 on Cloud** 

ADD COLUMN QUANTITY INTEGER;

Storage: 14%

**SELECT** \* FROM PET;

IBM Db2 on Cloud

\* Untitled - 1

**RUN SQL** 

(1, 'Cat', 3),

(2, 'Dog',4),

**INSERT** INTO PETSALE VALUES

(1, 'Cat', 450.09, 100.47, '2018-05-29'),

(2, 'Dog', 666.66, 150.76, '2018-06-01'),

(3, 'Parrot', 50.00, 8.9, '2018-06-04'),

(4, 'Hamster', 60.60, 12, '2018-06-11'),

(5, 'Goldfish', 48.48, 3.5, '2018-06-14');

CREATE TABLE PET ( ID INTEGER NOT NULL, ANIMAL VARCHAR(20),

SALEPRICE DECIMAL(6,2),

In this exercise, you will use the CREATE statement to create two new tables using Db2.

Instructions When you approach the exercises in this lab, follow the instructions to run the queries on Db2: • Go to the Resource List of IBM Cloud by logging in where you can find the Db2 service instance that you created in a previous lab under Services section. Click on the Db2-xx service. Next, open the Db2 Console by clicking on Open Console button. Click on the 3-bar menu icon in the top left corner and go to the Run SQL page. The Run SQL tool enables you to run SQL statements. • If needed, follow Hands-on Lab: Sign up for IBM Cloud, Create Db2 service instance and Get started with the Db2 console

1. You need to create two tables, PETSALE and PET. To create the two tables PETSALE and PET, copy the code below and paste it to the textbox of the Run SQL

CREATE TABLE PETSALE ( ID INTEGER NOT NULL, PET CHAR(20), SALEPRICE ...

CREATE TABLE PET ( ID INTEGER NOT NULL, ANIMAL VARCHAR(20), Qu...

Status: Success | Affected Rows: 0

Status: Success | Affected Rows: 0

2. Now insert some records into the two newly created tables and show all the records of the two tables. Copy the code below and paste it to the textbox of the

Cookie Preferences

450.09

666.66

50.00

60.60

48.48

Cookie Preferences

O Discover

Run time: 0.017 s

Run time: 0.004 s

Script Library

SALEPRICE PROFIT SALEDATE OUANTITY

150.76

12.00

Cookie Preferences

O Discover

Run time: **0.005 s** 

Run time: 0.003 s

Run time: 0.002 s

Run time: 0.001 s

SALEPRICE PROFIT SALEDATE QUANTITY

450.09 666.66

50.00 60.60

48.48

2018-05-29 9

2018-06-01 3

2018-06-04 2

2018-06-11 6

2018-06-14 24

O Discover

Run time: 0.004 s

Q 1 7

Script Library

SALEPRICE SALEDATE QUANTITY

2018-05-29 9 2018-06-01 3

2018-06-04 2

2018-06-11 6 2018-06-14 24

O Discover

Run time: 0.023 s

Run time: 0.005 s

SALEDATE QUANTITY

2018-05-29 9 2018-06-01 3

2018-06-04 2

2018-06-14 24

×

Approximate 5 rows (32 KB)

Updated on 2020-12-09 22:26:28

SCALE

0

0

2

0

0

Script Library

Cookie Preferences

450.09

666.66

50.00

48.48

450.09

666.66

50.00 60.60

48.48

Q <u>1</u> 7

666.66

50.00

60.60

2018-05-29

2018-06-01

2018-06-11 2018-06-14 Ţ

✓ INSERT INTO PETSALE VALUES (1, 'Cat', 450.09, 100.47, '2018-05-29'), (2,...

✓ INSERT INTO PET VALUES (1, 'Cat', 3), (2, 'Dog', 4), (3, 'Hamster', ...

Status: Success | Affected Rows: 5

Status: Success | Affected Rows: 3

SELECT \* FROM PETSALE

Result set 1

3 Parrot

5 Goldfish

Result set 1

ID ANIMAL

3 Hamster

1. Add a new QUANTITY column to the PETSALE table and show the altered table. Copy the code below and paste it to the textbox of the Run SQL page. Click

ALTER TABLE PETSALE ADD COLUMN QUANTITY INTEGER

2. Now update the newly added QUANTITY column of the PETSALE table with some values and show all the records of the table. Copy the code below and paste

Status: Success | Affected Rows: 0

SELECT ★ FROM PETSALE

ID PET

2 Dog

Hamster

Result - Dec 8, 2020 7:3... ▼

UPDATE PETSALE SET QUANTITY = 9 WHERE ID = 1

✓ UPDATE PETSALE SET QUANTITY = 3 WHERE ID = 2

✓ UPDATE PETSALE SET QUANTITY = 2 WHERE ID = 3

✓ UPDATE PETSALE SET QUANTITY = 6 WHERE ID = 4

UPDATE PETSALE SET QUANTITY = 24 WHERE ID = 5

1. Delete the PROFIT column from the PETSALE table and show the altered table. Copy the code below and paste it to the textbox of the Run SQL page. Click Run

Status: Success | Affected Rows: 1

SELECT \* FROM PETSALE

Result set 1

ID PET

1 Cat

3 Parrot

5 Goldfish

Result - Dec 8, 2020 7:3... ▼

ALTER TABLE PETSALE DROP COLUMN PROFIT

1. Change the data type to VARCHAR(20) type of the column PET of the table PETSALE and show the altered table. Copy the code below and paste it to the

✓ ALTER TABLE PETSALE ALTER COLUMN PET SET DATA TYPE VARCHAR(20)

Status: Success | Affected Rows: 0

2. Now verify if the data type of the column PET of the table PETSALE changed to VARCHAR(20) type or not. Click on the 3 bar menu icon in the top left corner

1. Rename the column PET to ANIMAL of the PETSALE table and show the altered table. Copy the code below and paste it to the textbox of the Run SQL page.

ALTER TABLE PETSALE RENAME COLUMN PET TO ANIMAL

Result - Dec 8, 2020 7:3...

Status: Success | Affected Rows: 0

SELECT \* FROM PETSALE

Result set 1

Dog

Parrot

5 Goldfish

In this exercise, you will use the TRUNCATE statement to remove all rows from an existing table created in exercise 1 without deleting the table itself.

Result - Dec 8, 2020 7:3... ▼

SELECT \* FROM PET

Result set 1

TRUNCATE TABLE PET IMMEDIATE

Status: Success | Affected Rows: 0

ANIMAL

1. Delete the PET table and verify if the table still exists or not (SELECT statement won't work if a table doesn't exist). Copy the code below and paste it to the

Syntax assistant

Congratulations! You have completed this Lab. You are ready for the next topic.

**Change Description** 

Initial version created

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**ID** reviewed

✓ ✓ DROP TABLE PET

SELECT \* FROM PET

Status: Failed

Status: Success | Affected Rows: 0

"TPZ00692.PET" is an undefined name.. SQLCODE=-204, SQLSTATE=42704, DRIVER=4.26.14

1. Remove all rows from the PET table and show the empty table. Copy the code below and paste it to the textbox of the Run SQL page. Click Run all.

G

Syntax assistant

In this exercise, you will use the DROP statement to delete an existing table created in exercise 1.

Hamster

ID

1 Cat

ANIMAL

and click Explore > Tables. Find the PETSALE table from Schemas by clicking Select All. Click on the PETSALE table to open the Table Definition page of the

**PROPERTIES** 

7 ↑ : ×

**Table Definition** 

**COLUMN NAME** 

DATA TYPE

**INTEGER** 

VARCHAR

DECIMAL

DATE

INTEGER

NULLABLE

Ν

Υ

LENGTH

20

6

4

**PETSALE** 

ID

PET

SALEPRICE

SALEDATE

QUANTITY

**Cookie Preferences** 

SALEPRICE

450.09

666.66

50.00

60.60

48.48

**Cookie Preferences** 

QUANTITY

No available items to display

O Discover

Run time: 0.016 s

Run time: 0.005 s

O Discover

Run time: 0.036 s

Cookie Preferences

Script Library

Run time: **0.021 s** 

Run time: 0.004 s

SALEDATE QUANTITY

2018-05-29 9

2018-06-04 2 2018-06-11 6

2018-06-14 24

Q 1 7

SELECT \* FROM PETSALE

Result set 1

1 Cat

3 Parrot

5 Goldfish

**SCHEMA** 

TPZ00692

TPZ00692

Syntax assistant Result - Dec 8, 2020 7:3...

G

table. Here, you can see all the current data type of the columns of the PETSALE table.

H New implicit schema

Task D: ALTER using RENAME COLUMN

**Tables** 

■ NAME ▼

PETRESCUE

✓ PETSALE

Syntax assistant

Status: Success | Affected Rows: 0

SELECT \* FROM PETSALE

Result set 1

ID PET

1 Cat

2 Dog

Parrot

5 Goldfish

<u>..</u> G

Syntax assistant

<u>..</u> G

In this exercise, you will use the ALTER statement to add, delete, or modify columns in two of the existing tables created in exercise 1.

Syntax assistant Result - Dec 8, 2020 7:3...

SELECT \* FROM PET

O Discover

Run time: 0.007 s

Run time: 0.004 s

SALEPRICE PROFIT SALEDATE

3.50

Q <u>1</u> 7

2018-05-29

2018-06-01

2018-06-04

2018-06-11

2018-06-14

OUANTITY

Q <u>1</u> 7

Run time: 0.003 s

Syntax assistant Result - Dec 8, 2020 7:2...

**:** 3

Syntax assistant 7 8 Result - Dec 8, 2020 7:3...