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SQL Cheat Sheet: Views, Stored Procedures and Transactions

Views

| Topic | Syntax | Description | Example |
|---------------|---|---|---|
| Create View | CREATE VIEW view_name AS SELECT column1, column2, FROM table_name WHERE condition; | A CREATE VIEW is an alternative way of representing data that exists in one or more tables. | CREATE VIEW EMPSALARY AS SELECT EMP_ID, F_NAME, L_NAME, B_DATE, SEX, SALARY FROM EMPLOYEES; |
| Update a View | CREATE OR REPLACE VIEW view_name AS SELECT column1, column2, FROM table_name WHERE condition; | The CREATE OR REPLACE VIEW command updates a view. | CREATE OR REPLACE VIEW EMPSALARY AS SELECT EMP_ID, F_NAME, L_NAME, B_DATE, SEX, JOB_TITLE, MIN_SALARY, MAX_SALARY FROM EMPLOYEES, JOBS WHERE EMPLOYEES.JOB_ID = JOBS.JOB_IDENT; |
| Drop a View | DROP VIEW view_name; | Use the DROP VIEW statement to remove a view from the database. | DROP VIEW EMPSALARY; |

--#SET TERMINATOR @ CREATE PROCEDURE

Stored Procedures in IBM Db2 using SQL

| | | | RETRIEVE_ALL |
|----------------------|--|---|---|
| Stored Procedures | #SET TERMINATOR @ CREATE PROCEDURE PROCEDURE_NAME | you can save, so the code can be reused over and over again. The default terminator for a stored procedure is semicolon(;). To set a different terminator we use SET TERMINATOR clause followed by the terminator such as '@'. | LANGUAGE SQL READS SQL DATA |
| | LANGUAGE | | DYNAMIC RESULT SETS 1 BEGIN |
| | BEGIN | | DECLARE C1 CURSOR |
| | END | | WITH RETURN FOR SELECT * FROM PETSALE; |
| | @ | | OPEN C1; |
| | | | END |

Stored Procedures in MySQL using phpMyAdmin

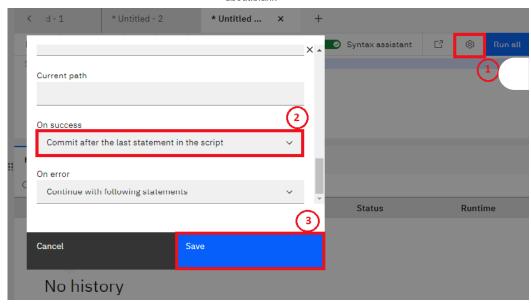
| Stored Procedures | DELIMITER // | A stored procedure is a prepared SQL code that you can save, so the code can be reused over and over again. The default terminator for a stored procedure is semicolon (;). To set a different terminator we use DELIMITER clause followed by the terminator such as \$\$ or // | DELIMITER // |
|----------------------|---------------------------------|--|------------------------|
| | CREATE PROCEDURE PROCEDURE_NAME | | |
| | BEGIN | | BEGIN |
| | END // | | SELECT * FROM PETSALE; |
| | DELIMITER; | | END // |
| | | | DELIMITER; |

Transactions with Db2

```
A \ \mathsf{COMMIT}
                      command is
                      used to
                      persist the
                      changes in
                                     CREATE TABLE employee(ID INT, Name VARCHAR(20), City VARCHAR(20), Salary INT, Age INT);
Commit COMMIT;
                      the database.
                                      INSERT INTO employee( ID, Name, City, Salary, Age) VALUES( 1, 'Priyanka pal', 'Nasik', 36000, 21), (2, 'Riya chowdary'
                                      82000, 29);
                      The default
command
                      terminator
                                      SELECT *FROM employee;
                      for a
                                      COMMIT;
                      COMMIT
                      command is
                      semicolon
                      (;).
                                            As auto-commit is enabled by default, all transactions will be committed. We need to disable this option to see rollback works.
Rollback ROLLBACK; A ROLLBACK
command
                      command is
                      used to
                                            For db2, we have to disable auto-commit manually. Click the gear icon located on the right side of the SQL Assis window. Next, select the "On Success" drop-down and choose "commit after the last statement in the script" Remem save your changes!
                      rollback the
                      transactions
                      which are
                      not saved in
                      the database.
                      The default
                      terminator
                      ROLLBACK
                      command is
                      semicolon
```

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INSERT INTO employee VALUES (3, 'Swetha Tiwari', 'Kanpur', 38000, 38);
SELECT *FROM employee;
ROLLBACK;
SELECT *FROM employee;

Transactions with MySQL

| Commit command | COMMIT; | A COMMIT command is used to persist the changes in the database. The default terminator for a COMMIT command is semicolon (;). | CREATE TABLE employee(ID INT, Name VARCHAR(20), City VARCHAR(20), Salary INT, Age INT); START TRANSACTION; INSERT INTO employee(ID, Name, City, Salary, Age) VALUES(1, 'Priyanka pal', 'Nasik', 36000, 21), (2, 'Riya chowdary', 'Bangalor', 82000, 29); |
|---------------------|-----------|---|--|
| Rollback command | ROLLBACK; | A ROLLBACK command is used to rollback the transactions which are not saved in the database. The default terminator for a ROLLBACK command is semicolon (;). | SELECT *FROM employee; COMMIT; As auto-commit is enabled by default, all transactions will be committed. We need to disable this option to see how rollback works. For MySQL use the command "SET autocommit = 0;" INSERT INTO employee VALUES (3, 'Swetha Tiwari', 'Kanpur', 38000, 38); SELECT *FROM employee; ROLLBACK; SELECT *FROM employee; |

Db2 Transactions using Stored Procedure

```
--#SET TERMINATOR @ CREATE PROCEDURE
TRANSACTION_ROSE LANGUAGE SQL MODIFIES SQL
                                                                                                                                                     DATA
                                                                                                                                                     BEGIN
                                                                                                                                                     DECLARE SQLCODE INTEGER DEFAULT 0;
DECLARE retcode INTEGER DEFAULT 0;
DECLARE CONTINUE HANDLER FOR SQLEXCEPTION
SET retcode = SQLCODE;
                      -#SET TERMINATOR @
                     CREATE PROCEDURE PROCEDURE_NAME
                                                                                                                                                     UPDATE BankAccounts
                                                                                     A COMMIT command is used to persist the changes
                                                                                                                                                     SET Balance = Balance-200
WHERE AccountName = 'Rose';
                     BEGIN
                                                                                     in the database.
Commit
                     COMMIT;
command
                                                                                                                                                     UPDATE BankAccounts
SET Balance = Balance-300
WHERE AccountName = 'Rose';
                                                                                     The default terminator for a COMMIT
                     END
                                                                                     command is semicolon (;).
                                                                                                                                                     IF retcode < 0 THEN ROLLBACK WORK;
                                                                                                                                                     ELSE
                                                                                                                                                     COMMIT WORK;
                                                                                                                                                     END IF;
                                                                                                                                                     END
                                                                                                                                                     --#SET TERMINATOR @ CREATE PROCEDURE
TRANSACTION_ROSE LANGUAGE SQL MODIFIES SQL
DATA
                      --#SET TERMINATOR @
Rollback
                                                                                     A ROLLBACK command is used to rollback the
                                                                                     transactions which are not saved in the database.
command
                     CREATE PROCEDURE PROCEDURE_NAME
                     BEGIN
                                                                                                                                                     BEGIN
```

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> ROLLBACK; COMMIT; END

The default terminator for a ROLLBACK command is semicolon (;).

DECLARE SQLCODE INTEGER DEFAULT 0; DECLARE retcode INTEGER DEFAULT 0; DECLARE CONTINUE HANDLER FOR SQLEXCEPTION SET retcode = SQLCODE;

UPDATE BankAccounts SET Balance = Balance-200
WHERE AccountName = 'Rose';

UPDATE BankAccounts SET Balance = Balance-300 WHERE AccountName = 'Rose';

IF retcode < 0 THEN ROLLBACK WORK;

ELSE COMMIT WORK;

DELIMITER //

END IF: END

BEGIN

BEGIN ROLLBACK;

RESIGNAL;

MySQL Transactions using Stored Procedure

DELIMITER // CREATE PROCEDURE PROCEDURE_NAME BEGIN Commit COMMIT; command END //

DELIMITER;

DELIMITER //

BEGIN

ROLLBACK;

COMMIT:

END //

DELIMITER;

CREATE PROCEDURE PROCEDURE NAME

A COMMIT command is used to persist the changes in the database.

The default terminator for a COMMIT command is semicolon (;).

END:

START TRANSACTION; UPDATE BankAccounts SET Balance = Balance-200 WHERE AccountName = 'Rose';

CREATE PROCEDURE TRANSACTION_ROSE()

DECLARE EXIT HANDLER FOR SQLEXCEPTION

UPDATE BankAccounts SET Balance = Balance-300
WHERE AccountName = 'Rose';

COMMIT: END // DELIMITER; DELIMITER //

CREATE PROCEDURE TRANSACTION_ROSE()

DECLARE EXIT HANDLER FOR SQLEXCEPTION BEGIN

ROLLBACK: RESIGNAL; END;

A ROLLBACK command is used to rollback the transactions which are not saved in the database.

The default terminator for a ROLLBACK command is semicolon (;).

START TRANSACTION; UPDATE BankAccounts
SET Balance = Balance-200
WHERE AccountName = 'Rose';

UPDATE BankAccounts SET Balance = Balance-300
WHERE AccountName = 'Rose';

COMMIT; END // DELIMITER;

Author(s)

D.M Naidu

Rollback

command



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