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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_ITILE, 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;  |

## Stored Procedures in IBM Db2 using SQL

|                      |   |  | #SET TERMINATOR @ CREATE PROCEDURE<br>RETRIEVE_ALL |
|----------------------|---|--|--|
| Stored<br>Procedures | #SET TERMINATOR @ CREATE PROCEDURE PROCEDURE NAME | 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 | LANGUAGE SQL<br>READS SQL DATA                     |
|                      | LANGUAGE  |  | DYNAMIC RESULT SETS 1<br>BEGIN                     |
|                      | BEGIN   |  | DECLARE C1 CURSOR                                  |
|                      | END   |  | WITH RETURN FOR SELECT * FROM PETSALE;             |
|                      | @   | terminator such as '@'.  | OPEN C1;   |
|                      |   |  | END  |
|                      |   |  | @  |

# Stored Procedures in MySQL using phpMyAdmin

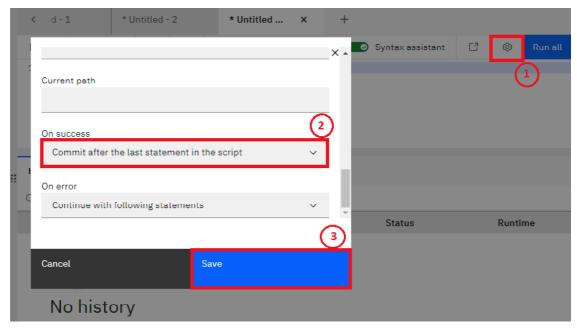
semicolon (;).

|                      | DELIMITER //                    | A stored procedure is a prepared SQL code that   | DELIMITER //           |
|----------------------|---------------------------------|--|------------------------|
| Stored<br>Procedures | CREATE PROCEDURE PROCEDURE_NAME | you can save, so the code can be reused over and   |                        |
|                      | BEGIN                           | over again.  | BEGIN                  |
|                      | END //                          | 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 //. | SELECT * FROM PETSALE; |
|                      | DELIMITER;                      |  | END //                 |
|                      |                                 |  | DELIMITER :            |

```
Transactions with Db2
                      A COMMIT
                      \hbox{command } is
                      used to
                      persist the
                                    CREATE TABLE employee(ID INT, Name VARCHAR(20), City VARCHAR(20), Salary INT, Age INT);
                      changes in
                      the database.
          COMMIT;
                                     INSERT INTO employee( ID, Name, City, Salary, Age) VALUES( 1, 'Priyanka pal', 'Nasik', 36000, 21), (2, 'Riya chowdary'
Commit
                                     82000, 29);
                      The default
command
                      terminator
                                     SELECT *FROM employee;
                      for a
                                     COMMIT;
                      COMMIT
                      command is
                      semicolon
                      (;).
Rollback ROLLBACK; A ROLLBACK
                                           As auto-commit is enabled by default, all transactions will be committed. We need to disable this option to see
command
                      \hbox{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
                      rollback the
                      transactions
                                           save your changes!
                      which are
                      not saved in
                      the database.
                      The default
                      terminator
                      for a
                      ROLLBACK
                      command is
```

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INSERT INTO employee VALUES (3, 'Swetha Tiwari', 'Kanpur', 38000, 38);

SELECT \*FROM employee; ROLLBACK: SELECT \*FROM employee;

### Transactions with MySQL

A COMMIT command is used to persist the changes START TRANSACTION; COMMIT; in the database. Commit INSERT INTO employee( ID, Name, City,
Salary, Age) VALUES( 1, 'Priyanka pal',
'Nasik', 36000, 21), (2, 'Riya chowdary',
'Bangalor', 82000, 29); command The default terminator for a COMMIT 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  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left($ A ROLLBACK command is used to rollback the ROLLBACK; transactions which are not saved in the database. "SET autocommit = 0;" Rollback command The default terminator for a ROLLBACK INSERT INTO employee VALUES (3, 'Swetha Tiwari', 'Kanpur', 38000, 38); command is semicolon (;). 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 TERMINATOR @ SET retcode = SQLCODE; CREATE PROCEDURE PROCEDURE NAME UPDATE BankAccounts A COMMIT command is used to persist the changes SET Balance = Balance-200 BEGIN in the database. WHERE AccountName = Commit COMMIT; command UPDATE BankAccounts The default terminator for a COMMIT SET Balance = Balance-300 END command is semicolon (;). WHERE AccountName = 'Rose'; IF retcode < 0 THEN ROLLBACK WORK; ELSE COMMIT WORK; END IF; END --#SET TERMINATOR @ CREATE PROCEDURE Rollback --#SET TERMINATOR @ A ROLLBACK command is used to rollback the TRANSACTION\_ROSE LANGUAGE SQL MODIFIES SQL command transactions which are not saved in the database. CREATE PROCEDURE PROCEDURE NAME DATA BEGIN

BEGIN

CREATE TABLE employee(ID INT, Name VARCHAR(20), City VARCHAR(20), Salary INT,

Age INT);

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```
ROLLBACK:
                                              The default terminator for a ROLLBACK
                                              command is semicolon (;).
COMMIT;
END
```

```
DECLARE SOLCODE 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; END IF;

DELIMITER //

END

## **MySQL Transactions using Stored Procedure**

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

DELIMITER;

DELIMITER //

BEGIN

ROLLBACK;

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

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

DECLARE EXIT HANDLER FOR SQLEXCEPTION BEGIN ROLLBACK: RESIGNAL; END;

CREATE PROCEDURE TRANSACTION\_ROSE()

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

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

COMMIT; END // DELIMITER; DELIMITER //

CREATE PROCEDURE TRANSACTION\_ROSE()

BEGIN

DECLARE EXIT HANDLER FOR SQLEXCEPTION

BEGIN ROLLBACK; RESIGNAL; END;

transactions which are not saved in the database. START TRANSACTION; UPDATE BankAccounts SET Balance = Balance-200

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

WHERE AccountName = 'Rose';

COMMIT; END // DELIMITER;

The default terminator for a ROLLBACK

command is semicolon (;).

A ROLLBACK command is used to rollback the

Rollback command

COMMIT; END // DELIMITER;

CREATE PROCEDURE PROCEDURE\_NAME

### Author(s)

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# Changelog

Version Changed by Change Description D.M.Naidu Initial Version 2022-10-04 1.0

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