

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 EMP_SALARY 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 EMP_SALARY 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 EMP_SALARY;

Stored Procedures in IBM Db2 using SQL

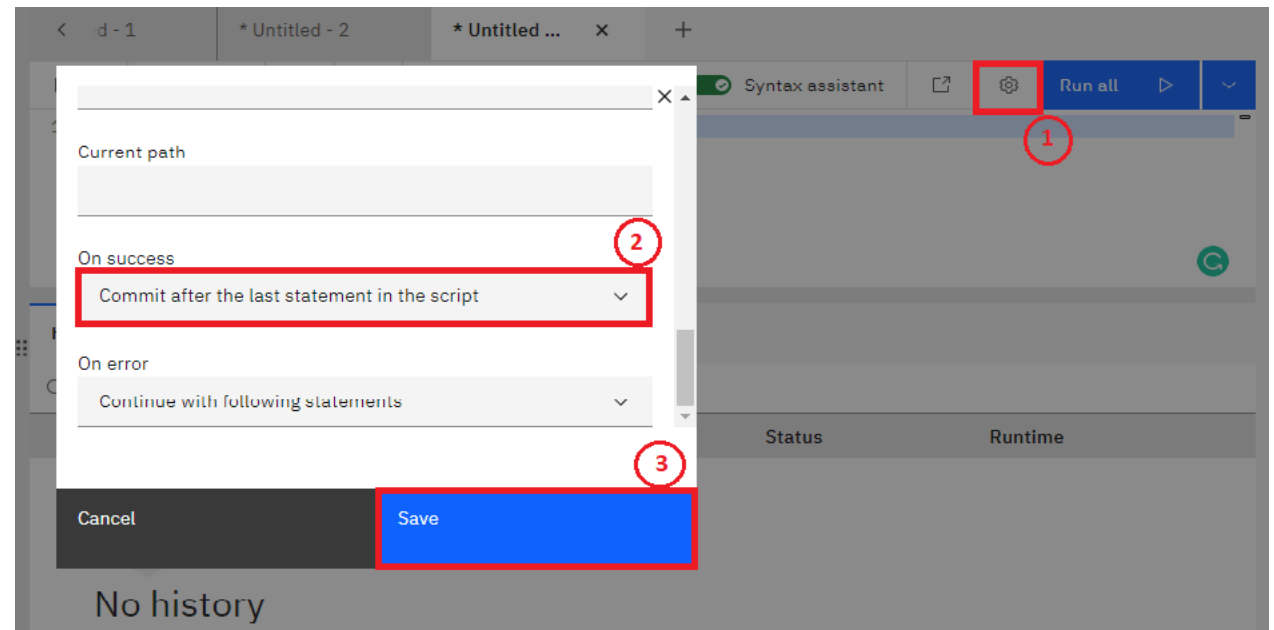
	--#SET TERMINATOR @ CREATE PROCEDURE PROCEDURE_NAME		--#SET TERMINATOR @ CREATE PROCEDURE RETRIEVE_ALL
	LANGUAGE		LANGUAGE SQL
	BEGIN		READS SQL DATA
Stored Procedures	END @	A stored procedure is a prepared SQL code that you can save, so the code can be reused over and over again.	DYNAMIC RESULT SETS 1 BEGIN
		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 '@'.	DECLARE C1 CURSOR WITH RETURN FOR  SELECT * FROM PETSALe;  OPEN C1;  END @

Stored Procedures in MySQL using phpMyAdmin

	DELIMITER //		DELIMITER //
	CREATE PROCEDURE PROCEDURE_NAME		CREATE PROCEDURE RETRIEVE_ALL()
	BEGIN	A stored procedure is a prepared SQL code that you can save, so the code can be reused over and over again.	BEGIN
Stored Procedures	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; END //
	DELIMITER ;		DELIMITER ;

Transactions with Db2

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);  INSERT INTO employee( ID, Name, City, Salary, Age) VALUES( 1, 'Priyanka pal', 'Nasik', 36000, 21), (2, 'Riya chowdary', 'Bangalor', 82000, 29);  SELECT *FROM employee; COMMIT;
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 (;).	As auto-commit is enabled by default, all transactions will be committed. We need to disable this option to see how rollback works.  For db2, we have to disable auto-commit manually. Click the gear icon located on the right side of the SQL Assistant window. Next, select the "On Success" drop-down and choose "commit after the last statement in the script" Remember to save your changes!



```
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 (;).

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 (;).

```
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);
```

```
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

Commit command

```
--SET TERMINATOR @
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 (;).

```
--SET TERMINATOR @ CREATE PROCEDURE TRANSACTION_ROSE LANGUAGE
SQL MODIFIES SQL DATA
BEGIN
```

```
BEGIN
COMMIT;

END
@
```

```
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;

END IF;

END
@

--#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;

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;

END
@
```

Rollback command

```
--#SET TERMINATOR @

CREATE PROCEDURE PROCEDURE_NAME

BEGIN

ROLLBACK;

COMMIT;

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 (;).

## MySQL Transactions using Stored Procedure

Commit command

```
DELIMITER //

CREATE PROCEDURE PROCEDURE_NAME

BEGIN

COMMIT;

END //

DELIMITER ;
```

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

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

```
DELIMITER //

CREATE PROCEDURE TRANSACTION_ROSE()

BEGIN

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

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

Rollback command

```
DELIMITER //  
CREATE PROCEDURE PROCEDURE_NAME  
BEGIN  
ROLLBACK;  
COMMIT;  
END //  
DELIMITER ;
```

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 (;).

```
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;  
  
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)

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Changelog

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