

SQL Cheat Sheet: Views, Stored Procedures and Transactions



Views

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

Stored Procedures in IBM Db2 using SQL

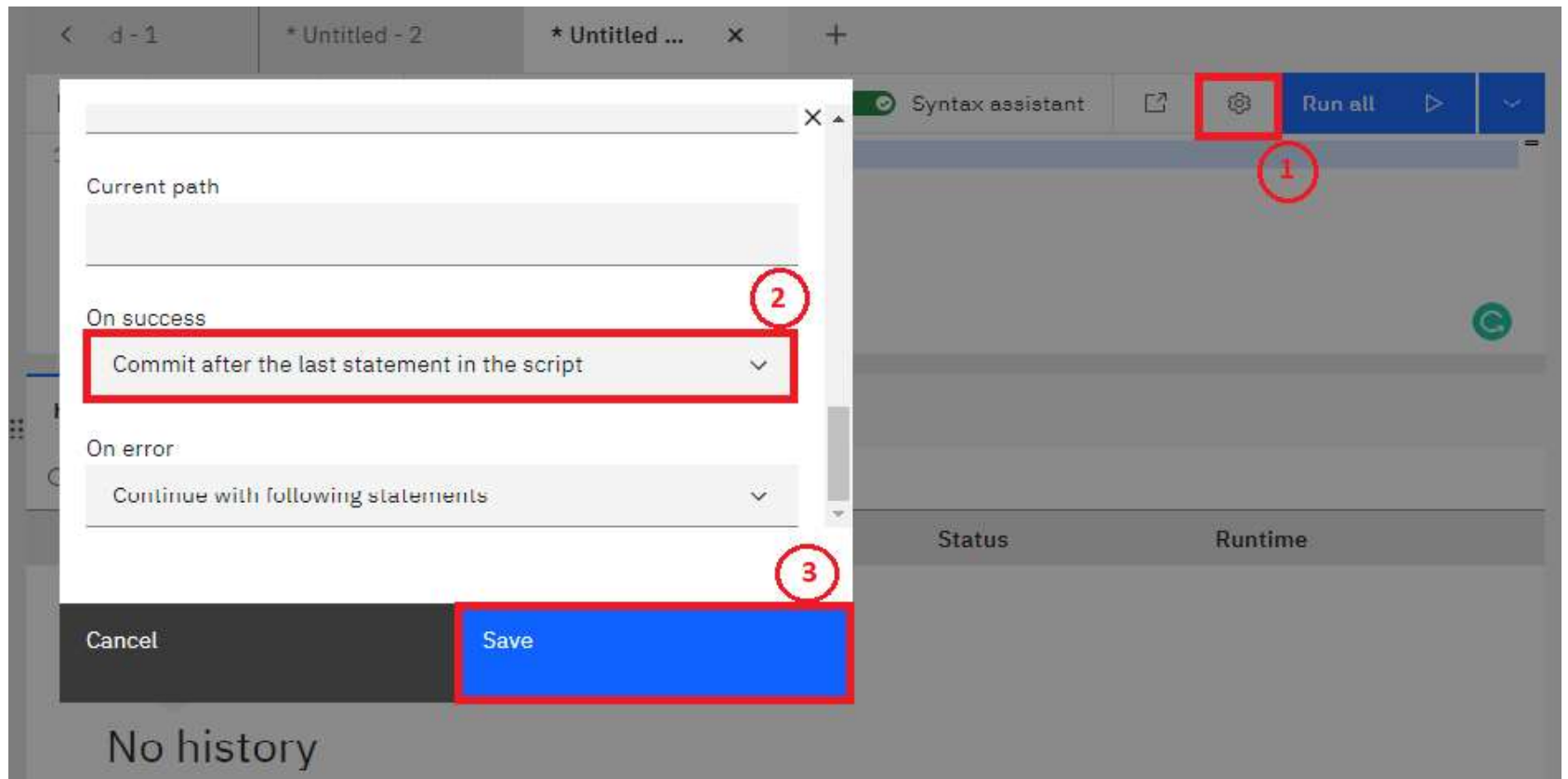
Stored Procedures	<code>--#SET TERMINATOR @ CREATE PROCEDURE PROCEDURE_NAME</code>	A stored procedure is a prepared SQL code that you can save, so the code can be reused over and over again.	<code>--#SET TERMINATOR @ CREATE PROCEDURE RETRIEVE_ALL</code>
	<code>LANGUAGE SQL</code>		<code>READS SQL DATA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

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.	DELIMITER //
	CREATE PROCEDURE PROCEDURE_NAME		CREATE PROCEDURE RETRIEVE_ALL()
	BEGIN		BEGIN
	END //		SELECT * FROM PETALE;
	DELIMITER ;	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 //.	END //
			DELIMITER ;

Transactions with Db2

Commit command	COMMIT;	A COMMIT command is used to persist the changes in the database.	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', 'Bangalore', 82000, 29);
		The default terminator for a COMMIT command is semicolon (;).	SELECT *FROM employee; COMMIT;
Rollback command	ROLLBACK;	A ROLLBACK command is used to rollback the transactions which are not saved in the database.	As auto-commit is enabled by default, all transactions will be committed. We need to disable this option to see how rollback works.
		The default terminator for a ROLLBACK command is semicolon (;).	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

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

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 (;).

```
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
BEGIN
COMMIT;
END
@
```

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
```

```
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 (;).

```
--#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  
@
```

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

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 (;).

```
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