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;

Stored Procedures in IBM Db2 using SQL

Stored Procedures	--#SET TERMINATOR @ CREATE PROCEDURE PROCEDURE_NAME LANGUAGE BEGIN END @	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 SET TERMINATOR clause followed by the terminator such as ‘@’.	--#SET TERMINATOR @ CREATE PROCEDURE RETRIEVE_ALL LANGUAGE SQL READS SQL DATA DYNAMIC RESULT SETS 1 BEGIN DECLARE C1 CURSOR WITH RETURN FOR SELECT * FROM PETSALE; OPEN C1; END @

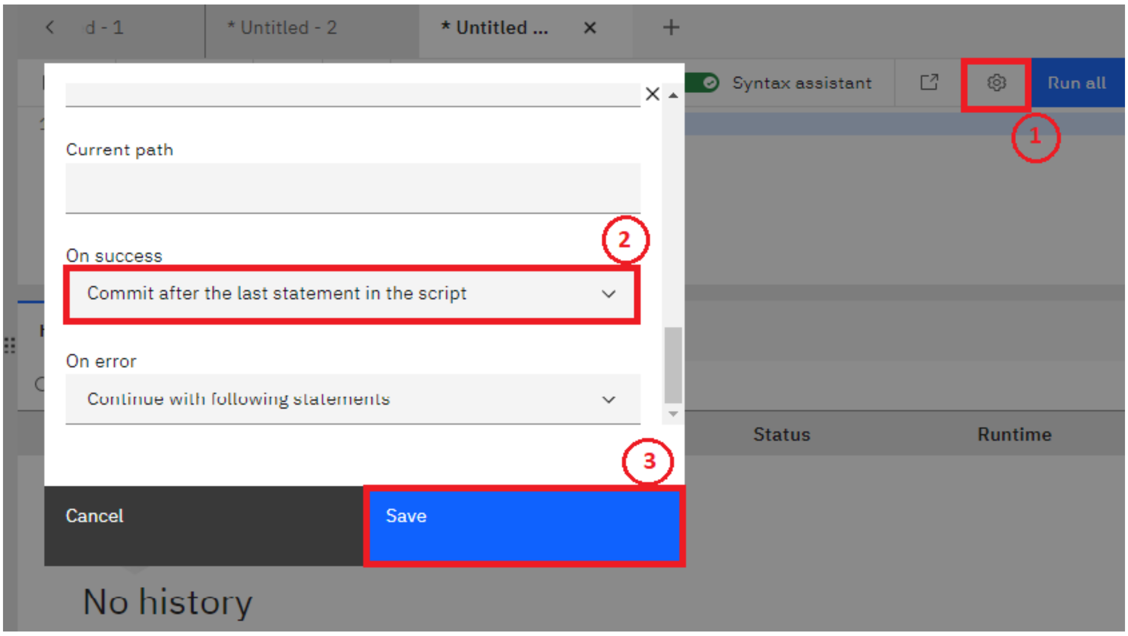
Stored Procedures in MySQL using phpMyAdmin

Stored Procedures	DELIMITER //
	CREATE PROCEDURE PROCEDURE_NAME
	BEGIN
	END //
	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 RETRIEVE_ALL()
			BEGIN
			SELECT * FROM PETSALE;
			END //
			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’ 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 rollback works. 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!



Current path

On success

Commit after the last statement in the script

On error

Continue with following statements

Cancel

Save

```
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);
			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 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
		A ROLLBACK command is used to rollback the transactions which are not saved in the database.	--#SET TERMINATOR @ CREATE PROCEDURE TRANSACTION_ROSE LANGUAGE SQL MODIFIES SQL DATA
			BEGIN

	`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;`
			`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;`
			`END //`
			`DELIMITER ;`

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 (;).
			`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