

## 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

Stored 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.	--#SET TERMINATOR @ CREATE PROCEDURE RETRIEVE_ALL
	LANGUAGE SQL BEGIN		LANGUAGE SQL READS SQL DATA DYNAMIC RESULT SETS 1 BEGIN
Stored Procedures	END @	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 PETSAL; OPEN C1;
			END @

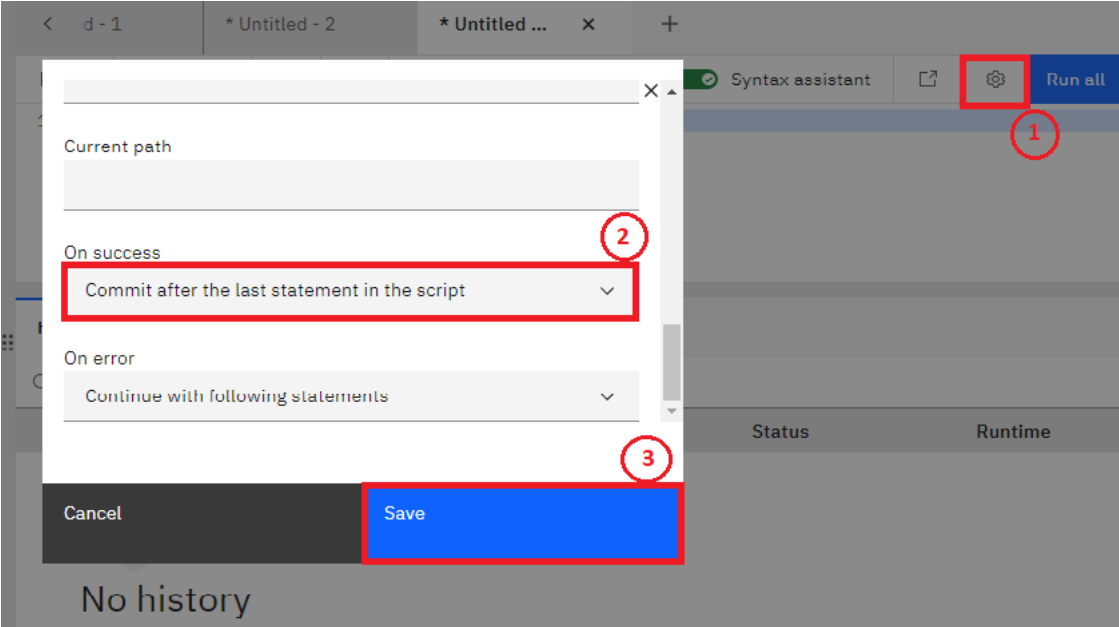
### Stored Procedures in MySQL using phpMyAdmin

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.	DELIMITER //
	CREATE PROCEDURE PROCEDURE_NAME BEGIN		CREATE PROCEDURE RETRIEVE_ALL()
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 //.	BEGIN SELECT * FROM PETSAL; END //
	DELIMITER ;		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', 82000, 29);
		The default terminator for a COMMIT command is semicolon (;).	SELECT *FROM employee; COMMIT;
Rollback command	ROLLBACK;	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!	
		The default terminator for a ROLLBACK command is	

semicolon  
(;).



```
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.	<pre>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;</pre>
		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.	<p>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;"</p> <pre>INSERT INTO employee VALUES (3, 'Swetha Tiwari', 'Kanpur', 38000, 38);  SELECT *FROM employee; ROLLBACK; SELECT *FROM employee;</pre>
		The default terminator for a ROLLBACK command is semicolon (;).	

Db2 Transactions using Stored Procedure

Commit command	<pre>--#SET TERMINATOR @ CREATE PROCEDURE PROCEDURE_NAME BEGIN COMMIT; END @</pre>	A COMMIT command is used to persist the changes in the database.	<pre>--#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 &lt; 0 THEN ROLLBACK WORK;  ELSE COMMIT WORK;  END IF;  END @</pre>
		The default terminator for a COMMIT command is semicolon (;).	
Rollback command	<pre>--#SET TERMINATOR @ CREATE PROCEDURE PROCEDURE_NAME BEGIN</pre>	A ROLLBACK command is used to rollback the transactions which are not saved in the database.	<pre>--#SET TERMINATOR @ CREATE PROCEDURE TRANSACTION_ROSE LANGUAGE SQL MODIFIES SQL</pre>

```
ROLLBACK;  
  
COMMIT;  
  
END  
@
```

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

```
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;  
  
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 ;
```

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 (;).

Author(s)

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Changelog

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