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## **SQL Cheat Sheet: Views, Stored Procedures and Transactions**

#### Views

VICWS			
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			
			#SET TERMINATOR @ CREATE PROCEDURE RETRIEVE_ALL
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.  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 '@'.	LANGUAGE SQL READS SQL DATA
	LANGUAGE		DYNAMIC RESULT SETS 1 BEGIN
	BEGIN		DECLARE C1 CURSOR WITH RETURN FOR
	END @		SELECT * FROM PETSALE;
			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		CREATE PROCEDURE RETRIEVE_ALL()
	BEGIN		BEGIN
	END //	The default terminator for a stored procedure is semicolon (;). To set a different terminator we use	SELECT * FROM PETSALE;

DELIMITER;

command is semicolon (;).

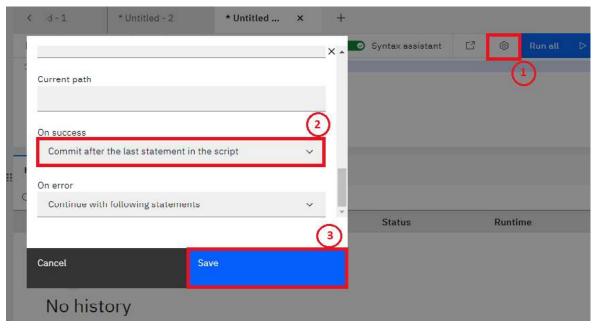
Transactions with Db2 A COMMIT  $\hbox{command } is$ used to persist the changes in CREATE TABLE employee(ID INT, Name VARCHAR(20), City VARCHAR(20), Salary INT, Age INT); the database. COMMIT; INSERT INTO employee( ID, Name, City, Salary, Age) VALUES( 1, 'Priyanka pal', 'Nasik', 36000, 21), (2, 'Riya chowdary', 'Ba Commit 82000, 29); command The default 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 how rollback works. command command is 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 t save your changes! used to rollback the transactions which are not saved in the database. The default terminator for a ROLLBACK

as \$\$ or //.

DELIMITER clause followed by the terminator such | END //

DELIMITER;

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

Age INT);

END IF;

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 in  $_{\mbox{\scriptsize START}}$  TRANSACTION; COMMIT; the database. Commit INSERT INTO employee( ID, Name, City, Salary, command Age) VALUES( 1, 'Priyanka pal', 'Nasik', 36000, 21), (2, 'Riya chowdary', 'Bangalor', The default terminator for a COMMIT command is semicolon (;). 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. A ROLLBACK command is used to rollback the For MySQL use the command "SET ROLLBACK; transactions which are not saved in the database. autocommit = 0; Rollback command INSERT INTO employee VALUES (3, 'Swetha The default terminator for a ROLLBACK Tiwari', 'Kanpur', 38000, 38); command is semicolon (;). SELECT \*FROM employee; ROLLBACK; SELECT \*FROM employee;

#### **Db2** Transactions using Stored Procedure

A commit command is used to persist the changes in  $\,$  --#SET TERMINATOR  $\,$  @ CREATE PROCEDURE -#SET TERMINATOR @ Commit TRANSACTION\_ROSE LANGUAGE SQL MODIFIES SQL command the database. CREATE PROCEDURE PROCEDURE\_NAME The default terminator for a COMMIT command BEGIN BEGIN is semicolon (;). COMMIT; DECLARE SQLCODE INTEGER DEFAULT 0; DECLARE retcode INTEGER DEFAULT 0; END 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;

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```
END
                                                                                                                  --#SET TERMINATOR @ CREATE PROCEDURE
                                                                                                                  TRANSACTION_ROSE LANGUAGE SQL MODIFIES SQL
                                                                                                                  BEGIN
                                                                                                                  DECLARE SQLCODE INTEGER DEFAULT 0;
                                                                                                                  DECLARE retcode INTEGER DEFAULT 0;
DECLARE CONTINUE HANDLER FOR SQLEXCEPTION
                --#SET TERMINATOR @
                                                                                                                  SET retcode = SOLCODE:
                CREATE PROCEDURE PROCEDURE_NAME
                                                                                                                  UPDATE BankAccounts
                BEGIN
                                                                 A ROLLBACK command is used to rollback the
                                                                                                                  SET Balance = Balance-200
                                                                 transactions which are not saved in the database.
                                                                                                                  WHERE AccountName = 'Rose';
Rollback
                ROLLBACK;
command
                                                                                                                  UPDATE BankAccounts
                COMMIT;
                                                                 The default terminator for a ROLLBACK
                                                                                                                  SET Balance = Balance-300
WHERE AccountName = 'Rose';
                                                                 command is semicolon (;).
                END
                                                                                                                  IF retcode < 0 THEN
                                                                                                                  ROLLBACK WORK;
                                                                                                                  ELSE
                                                                                                                  COMMIT WORK;
                                                                                                                  END IF;
                                                                                                                  END
MySQL Transactions using Stored Procedure
                                                                                                                  DELIMITER //
                                                                                                                  CREATE PROCEDURE TRANSACTION_ROSE()
                                                                                                                  BEGIN
                                                                                                                  DECLARE EXIT HANDLER FOR SQLEXCEPTION
                DELIMITER //
                                                                                                                  BEGIN
                                                                                                                  ROLLBACK:
                CREATE PROCEDURE PROCEDURE_NAME
                                                                                                                  RESIGNAL:
                                                                 A COMMIT command is used to persist the changes in END;
                BEGIN
Commit
                                                                                                                  START TRANSACTION:
                COMMIT;
                                                                                                                  UPDATE BankAccounts
command
                                                                 The default terminator for a COMMIT command
                                                                                                                  SET Balance = Balance-200
                END //
                                                                 is semicolon (;).
                                                                                                                  WHERE AccountName = 'Rose';
                DELIMITER;
                                                                                                                  UPDATE BankAccounts
                                                                                                                  SET Balance = Balance-300
                                                                                                                  WHERE AccountName = 'Rose';
                                                                                                                  COMMIT;
                                                                                                                  END //
                                                                                                                  DELIMITER :
                                                                                                                  DELIMITER //
                                                                                                                  CREATE PROCEDURE TRANSACTION ROSE()
                                                                                                                  BEGIN
                DELIMITER //
                                                                                                                  DECLARE EXIT HANDLER FOR SQLEXCEPTION
                CREATE PROCEDURE PROCEDURE_NAME
                                                                                                                  ROLLBACK;
                                                                                                                  RESIGNAL;
                BEGIN
                                                                                                                  END;
                                                                  A ROLLBACK command is used to rollback the
                ROLLBACK;
                                                                 transactions which are not saved in the database.
Rollback
                                                                                                                  START TRANSACTION:
                                                                                                                  UPDATE BankAccounts
command
                COMMIT;
                                                                 The default terminator for a ROLLBACK
                                                                                                                  SET Balance = Balance-200
                                                                 command is semicolon (;).
                                                                                                                  WHERE AccountName = 'Rose';
                END //
                                                                                                                  UPDATE BankAccounts
                DELIMITER;
                                                                                                                  SET Balance = Balance-300
                                                                                                                  WHERE AccountName = 'Rose';
                                                                                                                  COMMIT;
                                                                                                                  END //
                                                                                                                  DELIMITER;
```

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# Changelog

Date Version Changed by Change Description

2022-10-04 1.0 D.M.Naidu Initial Version

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