# Summary

## 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 MySQL using phpMyAdmin

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| Stored Procedures | `DELIMITER //`<br>`CREATE PROCEDURE`<br>`PROCEDURE_NAME`<br>`BEGIN`<br>`END //`<br>`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`<br>`PROCEDURE`<br>`RETRIEVE_ALL()`<br>`BEGIN`<br>`SELECT * FROM`<br>`PETSALE;`<br>`END //`<br><br>`DELIMITER ;` |

## Transactions with MySQL

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| Commit command | COMMIT; | A COMMIT command is used to persist the changes in the database.<br>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;<br>INSERT INTO employee( ID, Name, City, Salary, Age) VALUES( 1, ‘Priyanka pal’, ‘Nasik’, 36000, 21), (2, ‘Riya chowdary’, ‘Bangalor’, 82000, 29);<br>SELECT *FROM employee;<br>COMMIT; |
| Rollback command | ROLLBACK; | A ROLLBACK command is used to rollback the transactions which are not saved in the database.<br>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;”<br>INSERT INTO employee VALUES (3, ‘Swetha Tiwari’, ‘Kanpur’, 38000, 38);<br>SELECT *FROM employee;<br>ROLLBACK;<br>SELECT *FROM employee; |

## MySQL Transactions using Stored Procedure

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|---|---|---|---|
| Commit command | DELIMITER //<br>CREATE PROCEDURE PROCEDURE_NAME<br>BEGIN<br>COMMIT;<br>END //<br>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()<br>BEGIN<br>DECLARE EXIT HANDLER FOR SQLEXCEPTION<br>BEGIN<br>ROLLBACK;<br>RESIGNAL;<br>END;<br>START TRANSACTION;<br>UPDATE BankAccounts SET Balance = Balance-200 |

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| | | | WHERE AccountName = ‘Rose’;<br>UPDATE BankAccounts<br>SET Balance = Balance-300<br>WHERE AccountName = ‘Rose’;<br>COMMIT;<br>END //<br>DELIMITER ; |
| Rollback command | DELIMITER //<br>CREATE PROCEDURE<br>PROCEDURE_NAME<br>BEGIN<br>ROLLBACK;<br>COMMIT;<br>END //<br>DELIMITER ; | A ROLLBACK command is used to rollback the transactions which are not saved in the database.<br>The default terminator for a ROLLBACK command is semicolon (;). | DELIMITER //CREATE PROCEDURE TRANSACTION_ROSE()<br>BEGIN<br>DECLARE EXIT HANDLER FOR SQLEXCEPTION<br>BEGIN<br>ROLLBACK;<br>RESIGNAL;<br>END;<br>START TRANSACTION;<br>UPDATE BankAccounts<br>SET Balance = Balance-200<br>WHERE AccountName = ‘Rose’;<br>UPDATE BankAccounts<br>SET Balance = Balance-300<br>WHERE AccountName = ‘Rose’;<br>COMMIT;<br>END //<br>DELIMITER ; |

1. Which of the following statements about 'views' in SQL is correct?

○ A view can only represent data from a single table.

○ A view is an independent copy of a single table's structure, including the data.

○ You cannot change data in the base tables through a view.

● When you define a view, only the definition of the view is stored, not the data that it represents.

> Correct! The data that the view represents remains stored in the base tables, not in the view itself.

Which SQL statement below creates a view displaying job names and salary ranges for jobs where the salary range is between 50,000 and 100,000?

○ CREATE VIEW JobSalaryRanges(Job, StartingSalary, MaximumSalary)

FROM JOBS

WHERE MIN_SALARY > 50000 AND MAX_SALARY < 100000;

○ CREATE VIEW JobSalaryRanges(Job, StartingSalary, MaximumSalary)

AS SELECT JOB_TITLE, MIN_SALARY, MAX_SALARY

FROM JOBS

WHERE SALARY > 50000 AND SALARY < 100000;

○ CREATE VIEW

AS SELECT JOB_TITLE, MIN_SALARY, MAX_SALARY

FROM JOBS

WHERE MIN_SALARY > 50000 AND MAX_SALARY < 100000;

● CREATE VIEW JobSalaryRanges(Job, StartingSalary, MaximumSalary)

AS SELECT JOB_TITLE, MIN_SALARY, MAX_SALARY

FROM JOBS

WHERE MIN_SALARY >= 50000 AND MAX_SALARY <= 100000;

> Correct! This CREATE VIEW statement is correctly formed and contains a valid WHERE clause.

Which of the following are benefits of ‘stored procedures’?

○ Reduction in network traffic

● All are valid benefits

> Correct! You can use stored procedures to gain all of these benefits.

○ Improvement in performance

○ Reuse of code

**4.** Which of the following parameters can a stored procedure use?

○ Input parameters

● Input and output parameters

> Correct! Stored procedures can use both input and output parameters.

○ Output parameters

○ No parameters as a stored procedure cannot accept parameters.