

Week 6 - Practice Quiz- Views, Stored Procedures and Transactions (Honours) (NOT REQUIRED)

1. Which of the following statements about **views** is correct?

- **When you define a view, only the definition of the view is stored, not the data that it represents.**
 - 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.
 - A view can only represent data from a single table.
- The data that the view represents remains stored in the base tables, not in the view itself.
- Views in a database are virtual tables created by defining a query. When you create a view, you define the query that specifies which data from one or more underlying tables should be included in the view. The view itself does not store the actual data; it stores the SQL query that defines how to retrieve the data from the underlying tables.

2. Which of the following SQL statements will create a view that lists the job name and min and max salaries for jobs with a pay range of 50000 to 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;**
- 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 SALARY > 50000 AND SALARY < 100000;
- CREATE VIEW JobSalaryRanges(Job, StartingSalary, MaximumSalary)
FROM JOBS
WHERE MIN_SALARY > 50000 AND MAX_SALARY < 100000;

3. The benefits of **stored procedures** include which of the following?

- Reuse of code
- Reduction in network traffic
- Improvement in performance
- **All of the above**

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

- **Input and output parameters**
- A stored procedure cannot accept parameters.
- Input parameters
- Output parameters

5. What does **ACID** stand for?

- Atomic, Consistent, Initiated, Duplicated
 - **Atomic, Consistent, Isolated, Durable**
 - Asynchronous, Complete, Individual, Direct
 - Alternative, Creative, Isolated, Durable
- ACID transactions are Atomic - all or nothing, leave the database in a Consistent state, Isolated from any other process that changes the same data, and Durable - the changes they make are permanent.

Week 6 - Graded Quiz- Views, Stored Procedures and Transactions (Honours) (NOT REQUIRED)

1. A **stored procedure** can:

- Be written in different languages
- Accept information
- Return results
- **All of the above**

2. What does **ACID** stand for?

- **Atomic, Consistent, Isolated, Durable**
- Alternative, Creative, Isolated, Durable
- Atomic, Consistent, Initiated, Duplicated
- Asynchronous, Complete, Individual, Direct

3. Which of the following SQL statements will create a view named EMP_VIEW with an employee's First name, last name, and ID, based on the EMPLOYEES tables?

- **CREATE VIEW EMP_VIEW (EMP_ID, FIRSTNAME, LASTNAME)
AS SELECT EMP_ID, F_NAME, L_NAME
FROM EMPLOYEES;**
- CREATE VIEW EMP_VIEW (EMP_ID, FIRSTNAME, LASTNAME)
FROM EMPLOYEES;
- CREATE VIEW EMP_VIEW (EMP_ID, FIRSTNAME, LASTNAME)
AS SELECT EMP_ID, F_NAME, L_NAME;
- NEW VIEW EMP_VIEW (EMP_ID, FIRSTNAME, LASTNAME)
AS SELECT EMP_ID, F_NAME, L_NAME
FROM EMPLOYEES;

4. Which of the following SQL statements will create a view that lists only the employees in department number 7?

- **CREATE VIEW EMP_VIEW (EMP_ID, FIRSTNAME, LASTNAME)
AS SELECT EMP_ID, F_NAME, L_NAME
FROM EMPLOYEES
WHERE DEP_ID = 7;**
- CREATE VIEW EMP_VIEW (EMP_ID, FIRSTNAME, LASTNAME)
AS SELECT EMP_ID, F_NAME, L_NAME
WHERE DEP_ID = 7;
- CREATE VIEW EMP_VIEW (EMP_ID, FIRSTNAME, LASTNAME)
AS SELECT EMP_ID, F_NAME, L_NAME
FROM EMPLOYEES
IF DEP_ID = 7;
- CREATE VIEW EMP_VIEW (EMP_ID, FIRSTNAME, LASTNAME)
WHERE DEP_ID = 7
AS SELECT EMP_ID, F_NAME, L_NAME
FROM EMPLOYEES;

5. You are developing an application that helps users transfer money from one bank account to another. In tests, the source account is debited, but the target account is not credited. Which of the following SQL commands undoes all the changes made during the transfer to leave the database in a stable state?

- **ROLLBACK**
- COMMIT
- BEGIN
- DROP

→ The ROLLBACK command undoes all the changes in the transaction, taking the database back to its initial state.

Week 6- Practice Quiz- JOIN Statements (Honours) (NOT REQUIRED)

1. You usually create a join between...?

- The foreign keys in each table.
- **The primary key in one table to the foreign key in another table.**
- Any column in either table.
- The primary keys in each table.

2. Which type of join returns all of the rows that an inner join returns and also all of the rows in the second table that do not have a match in the first table?

- **Right outer join**
- Full outer join
- Left outer join
- Left inner join

3. Which of the following statements correctly uses an INNER JOIN?

- SELECT * FROM EMPLOYEES e INNER JOIN DEPARTMENTS d ON DEP_ID
 - **SELECT * FROM EMPLOYEES e INNER JOIN DEPARTMENTS d ON e.DEP_ID = d.DEP_ID**
 - SELECT * FROM EMPLOYEES INNER JOIN DEPARTMENTS ON DEP_ID = DEP_ID
 - CREATE INNER JOIN BETWEEN EMPLOYEES e AND DEPARTMENTS d ON e.DEP_ID = d.DEP_ID
- This statement uses an inner join to access rows from the EMPLOYEES and DEPARTMENTS tables.

4. Which of the following are three valid types of outer join?

- **Left outer join, right outer join, full outer join**
- Left outer join, right outer join, total outer join
- Left outer join, right outer join, both outer join
- Left outer join, right outer join, left/right outer join

5. Which type of join would you use to select all the rows from both tables?

- Total outer join
- Left outer join
- Right outer join
- **Full outer join**

→ A full outer join will return all the rows from both the left table and the right table in the join.

Week 6- Graded Quiz: JOIN operations (Honours) (NOT REQUIRED)

1. An INNER JOIN returns only the rows that match. (T/F)

- **True**
- False

2. A LEFT OUTER JOIN displays all the rows from the right table, and combines matching rows from the left table. (T/F)

- True
- **False**

3. When using an OUTER JOIN, you must explicitly state what kind of OUTER JOIN you want - a LEFT JOIN, a RIGHT JOIN, or a FULL JOIN. (T/F)

- **True**
- False

4. Which of the following are valid types of JOINS?

- **LEFT OUTER JOIN**
- **RIGHT OUTER JOIN**
- **FULL OUTER JOIN**
- FULL LEFT JOIN
- All of the above

5. A FULL JOIN returns only the rows that match. (T/F)

True

False