**Instructions:**

Please share your answers filled in line in the Word document. Submitcode

separately wherever applicable.

Please ensure you update all the details:

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**Topic: Introduction to Database**

1. **Write an SQL query to accomplish the following tasks:**

* 1. Create a database named **student\_db**.

Answer:

create database student\_db;

* 1. Create a table named **students\_details** with columns **id** (integer), **name** (varchar), **age** (integer), and **grade** (float). id should be set as the primary key.

Answer:

CREATE TABLE student\_details

(

id INT PRIMARY KEY,

name VARCHAR(200),

age INT,

grade FLOAT

);

* 1. Insert any four records into **students\_details**.

Answer:

Insert into student\_details (id,name,age,grade) values(1,'ram',10,7.5),(2,'ramu',12,9.0),(3,'rakesh',12,7.0),(4,'ramesh',11,5.0);

* 1. Create a new table named **students\_details\_copy** with the same columns as **students\_details**. **id** should also be set as the primary key.

Answer:

CREATE TABLE student\_details\_copy

(

id INT PRIMARY KEY,

name VARCHAR(200),

age INT,

grade FLOAT

);

* 1. Create a trigger named **after\_insert\_details** that inserts a new record into **students\_details\_copy** every time a record is inserted into students\_details.

Answer:

DELIMITER $$

CREATE TRIGGER after\_insert\_details

AFTER INSERT ON student\_details

FOR EACH ROW

BEGIN

INSERT INTO student\_details\_copy

VALUES (NEW.id,NEW.name,NEW.age,NEW.grade);

END $$

DELIMITER ;

* 1. Insert a new record into **students\_details.**

Answer:

**insert into student\_details(id,name,age,grade) values(5,'joe',18,8.7),(6,'sigh',19,7.7);**

* 1. check whether a record is filling in **students\_details\_copy** as you insert value in **students\_details.**

Answer:

They got updated in **students\_details\_copy** table.

1. **Write an SQL question that accomplishes the following tasks:**

* 1. use **student\_db ,**
  2. Create a trigger named **update\_grade** that automatically updates the **grade** column every time a record in **students\_details** is updated based on the following criteria:
  3. If the updated record has an age value less than 18, multiply the grade by 0.9.
  4. If the updated record has an age value between 18 and 20 (inclusive), multiply the grade by 1.1.

* 1. If the updated record has an age value greater than 20, multiply the grade by 1.05.

Answers:

DELIMITER $$

CREATE TRIGGER update\_grade

AFTER UPDATE ON student\_details

FOR EACH ROW

BEGIN

IF NEW.age <18 THEN

SET NEW.grade = NEW.grade \* 0.9;

ELSEIF NEW.age BETWEEN 18 AND 20 THEN

SET NEW.grade = NEW.grade\*1.1;

ELSE

SET NEW.grade = NEW.grade \* 1.05;

END IF;

END $$

DELIMITER ;

* 1. Update the age value of one of the records in students\_new to see the trigger in action.

Answers:

UPDATE students\_details

SET age = 19

WHERE id = 1;

1. **Explain the difference between the AFTER and INSTEAD OF trigger operators in SQL.**

Answers:

AFTER is used on tables in triggers in sql operators.

INSTEAD is used on views in triggers in sql operators

1. **What is the purpose of the INSTEAD OF DELETE trigger operator in SQL?**

Answers:

INSTEAD OF DELETE trigger is used to rows in a table manually it takes the back up of deleted rows in to another table.