**SQL PROJECTS**

1. have  created database kg\_insurance\_company

CREATE DATABASE kg\_insurance\_company;

USE kg\_insurance\_company;

CREATE TABLE customers (

    customer\_id INT PRIMARY KEY,

    full\_name VARCHAR(100),

    gender CHAR(1),

    age INT,

    region VARCHAR(50)

);

CREATE TABLE policies (

    policy\_id VARCHAR(10) PRIMARY KEY,

    customer\_id INT,

    policy\_type VARCHAR(50),

    start\_date DATE,

    end\_date DATE,

    premium DECIMAL(10, 2),

    FOREIGN KEY (customer\_id) REFERENCES customers(customer\_id)

);

CREATE TABLE claims (

    claim\_id VARCHAR(10) PRIMARY KEY,

    policy\_id VARCHAR(10),

    claim\_date DATE,

    claim\_amount DECIMAL(10, 2),

    claim\_type VARCHAR(50),

    status VARCHAR(50),

    FOREIGN KEY (policy\_id) REFERENCES policies(policy\_id)

);

CREATE TABLE agents (

    agent\_id VARCHAR(10) PRIMARY KEY,

    agent\_name VARCHAR(100),

    region VARCHAR(50),

    total\_clients INT

);

3. Inserted records into the TABLE

customers records

DELIMITER //

CREATE PROCEDURE insert\_customers()

BEGIN

    DECLARE i INT DEFAULT 1;

    WHILE i <= 1000 DO

        INSERT INTO customers (customer\_id, full\_name, gender, age, region)

        VALUES

        (i,

        CONCAT('Customer ', i),

        IF(MOD(i, 2) = 0, 'M', 'F'),

        FLOOR(18 + (RAND() \* 50)),

        CASE

            WHEN MOD(i, 4) = 0 THEN 'Gauteng'

            WHEN MOD(i, 4) = 1 THEN 'KZN'

            WHEN MOD(i, 4) = 2 THEN 'Western Cape'

            ELSE 'Eastern Cape'

        END);

        SET i = i + 1;

    END WHILE;

END//

DELIMITER ;

CALL insert\_customers();

policies records

DELIMITER //

CREATE PROCEDURE insert\_policies()

BEGIN

    DECLARE i INT DEFAULT 1;

    WHILE i <= 1000 DO

        INSERT INTO policies (policy\_id, customer\_id, policy\_type, start\_date, end\_date, premium)

        VALUES

        (CONCAT('P', LPAD(i, 3, '0')),

        i,

        CASE

            WHEN MOD(i, 3) = 0 THEN 'Home'

            WHEN MOD(i, 3) = 1 THEN 'Auto'

            ELSE 'Life'

        END,

        DATE\_ADD('2022-01-01', INTERVAL i DAY),

        DATE\_ADD('2023-01-01', INTERVAL i DAY),

        ROUND(300 + (RAND() \* 700), 2));

        SET i = i + 1;

    END WHILE;

END//

DELIMITER ;

CALL insert\_policies();

claims table records

DELIMITER //

CREATE PROCEDURE insert\_claims()

BEGIN

    DECLARE i INT DEFAULT 1;

    DECLARE policy\_count INT;

    DECLARE random\_policy\_id VARCHAR(10);

    SELECT COUNT(\*) INTO policy\_count FROM policies;

    WHILE i <= 200 DO

        SET random\_policy\_id = CONCAT('P', LPAD(FLOOR(RAND() \* policy\_count) + 1, 3, '0'));

        INSERT INTO claims (claim\_id, policy\_id, claim\_date, claim\_amount, claim\_type, status)

        VALUES

        (UUID(),

        random\_policy\_id,

        DATE\_ADD('2022-01-01', INTERVAL FLOOR(RAND() \* 365) DAY),

        ROUND(1000 + (RAND() \* 10000), 2),

        CASE

            WHEN MOD(i, 3) = 0 THEN 'Accident'

            WHEN MOD(i, 3) = 1 THEN 'Death'

            ELSE 'Fire'

        END,

        CASE

            WHEN MOD(i, 2) = 0 THEN 'Approved'

            ELSE 'Rejected'

        END);

        SET i = i + 1;

    END WHILE;

END//

DELIMITER ;

Agents records

DELIMITER //

CREATE PROCEDURE insert\_agents()

BEGIN

    DECLARE i INT DEFAULT 1;

    WHILE i <= 1000 DO

        INSERT INTO agents (agent\_id, agent\_name, region, total\_clients)

        VALUES

        (CONCAT('A', LPAD(i, 3, '0')),

        CONCAT('Agent ', i),

        CASE

            WHEN MOD(i, 3) = 0 THEN 'Gauteng'

            WHEN MOD(i, 3) = 1 THEN 'KZN'

            ELSE 'Western Cape'

        END,

        FLOOR(20 + (RAND() \* 80)));

        SET i = i + 1;

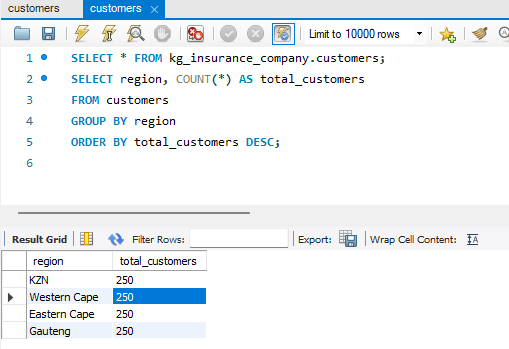
    END WHILE;

END//

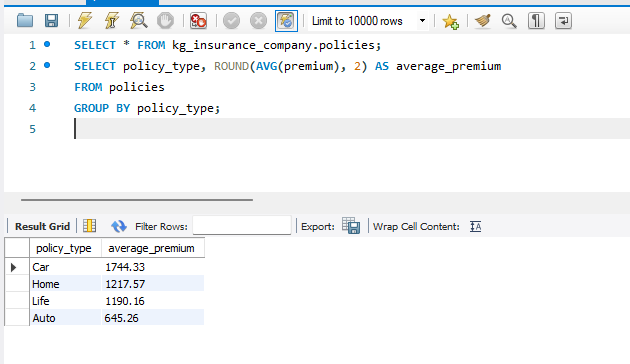
DELIMITER ;

CALL insert\_agents();

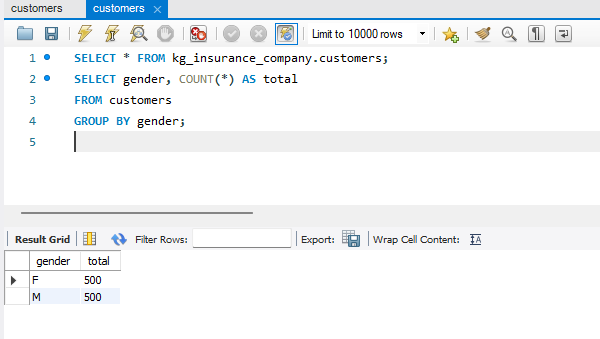
🔹 Query 1: Count of Customers per Region



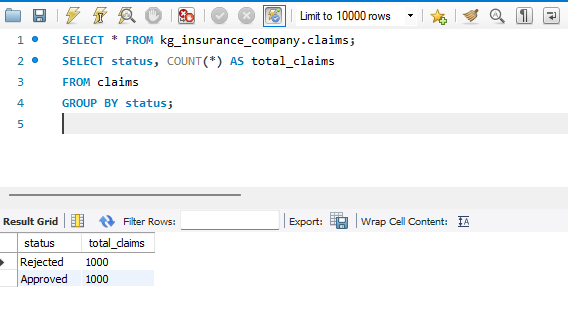
🔹 Query 2: Average Premium per Policy Type



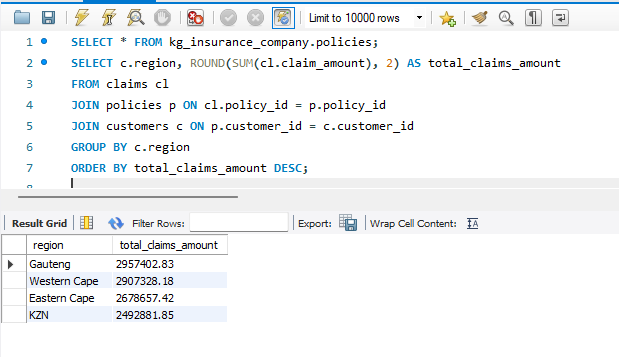
🔹 Query 3: Gender Distribution of Customers



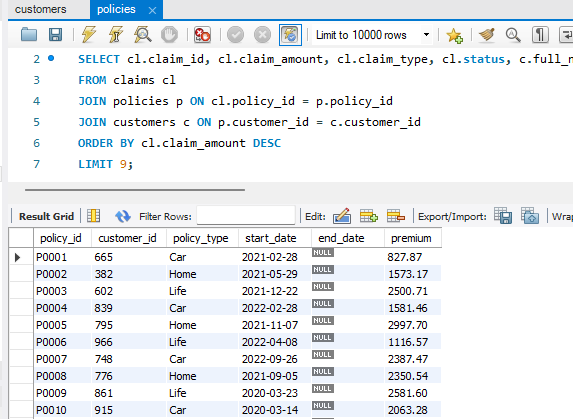
🔹 Query 4: Claims by Status



🔹 Query 5: Total Claims Amount by Region

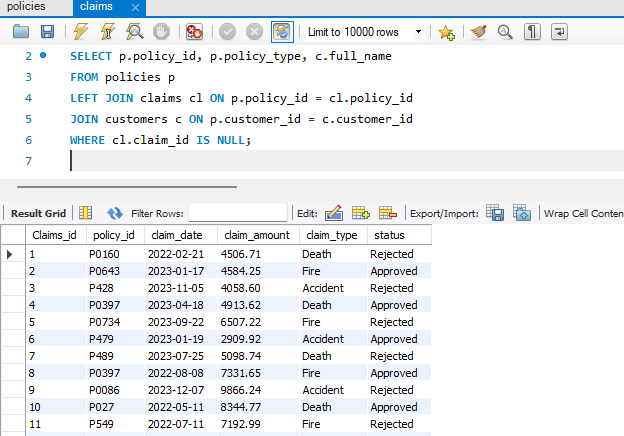


🔹 Query 6: Top 10 Highest Claim Amounts

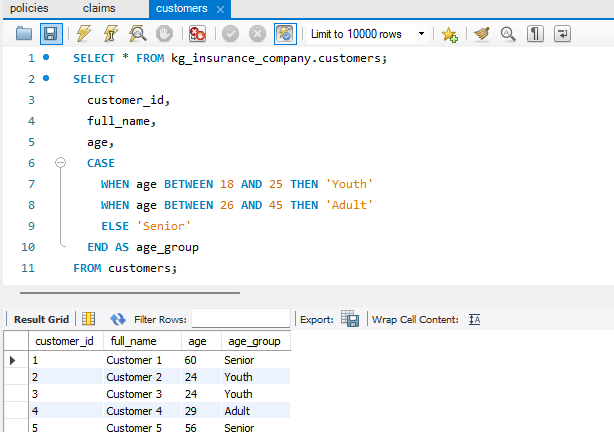


🔹 Query 7: Policies Without Claims

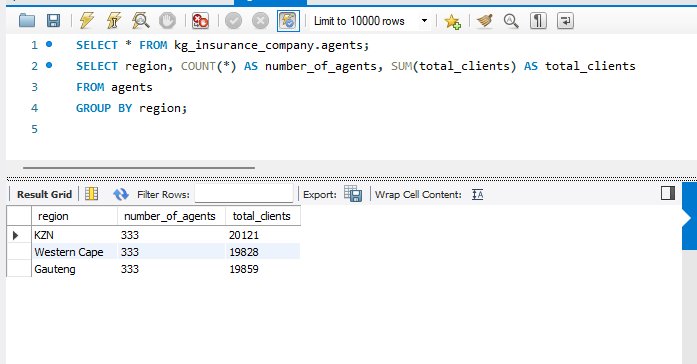
🔹 Query 7: Policies Without Claims



🔹 Query 8: Categorize Customers by Age Group



🔹 Query 9: Agent Load Summary by Region



🔹 Query 10: Customers with More Than 1 Claim

