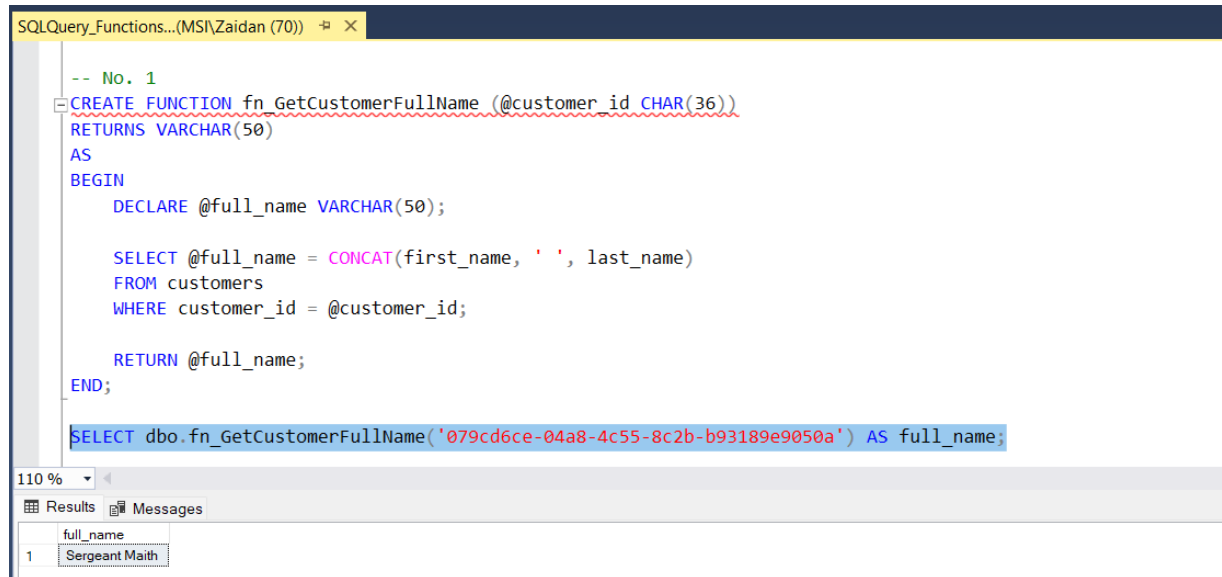


## KELOMPOK 1 MBD A2

- Fachryzaidan Akmal (24060122120001)
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1. function `fn_GetCustomerFullName` yang menerima input `customer_id` dan mengembalikan nama lengkap customer (gabungan `first_name` dan `last_name`).



```
-- No. 1
CREATE FUNCTION fn_GetCustomerFullName (@customer_id CHAR(36))
RETURNS VARCHAR(50)
AS
BEGIN
    DECLARE @full_name VARCHAR(50);

    SELECT @full_name = CONCAT(first_name, ' ', last_name)
    FROM customers
    WHERE customer_id = @customer_id;

    RETURN @full_name;
END;

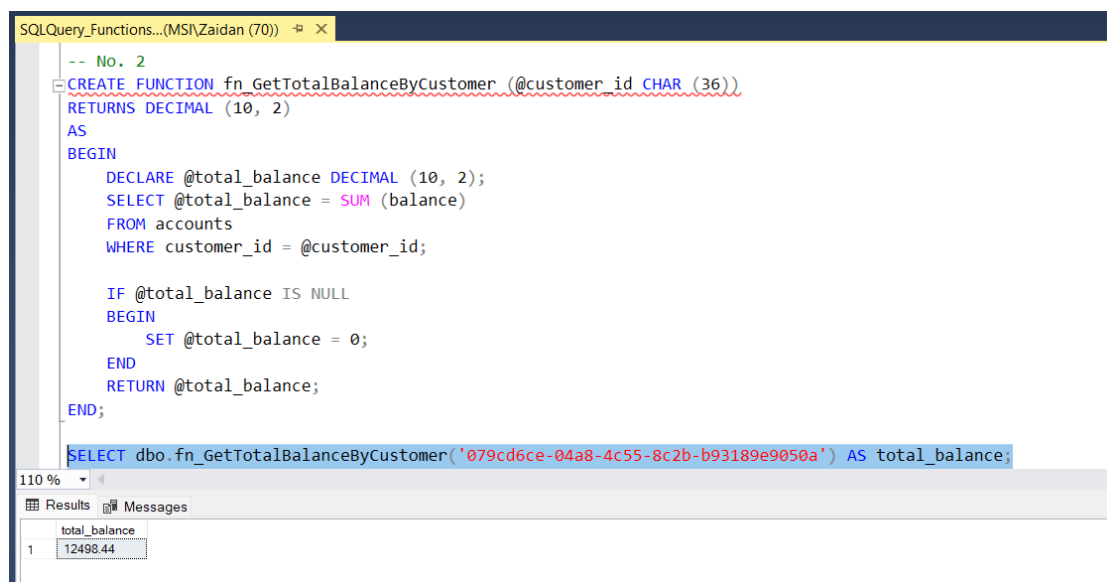
SELECT dbo.fn_GetCustomerFullName('079cd6ce-04a8-4c55-8c2b-b93189e9050a') AS full_name;
```

110 %

Results Messages

	full_name
1	Sergeant Maith

2. function `fn_GetTotalBalanceByCustomer` yang menerima input `customer_id` dan mengembalikan total saldo dari semua akun milik customer tersebut dari tabel `accounts`.



```
-- No. 2
CREATE FUNCTION fn_GetTotalBalanceByCustomer (@customer_id CHAR(36))
RETURNS DECIMAL(10, 2)
AS
BEGIN
    DECLARE @total_balance DECIMAL(10, 2);
    SELECT @total_balance = SUM(balance)
    FROM accounts
    WHERE customer_id = @customer_id;

    IF @total_balance IS NULL
    BEGIN
        SET @total_balance = 0;
    END
    RETURN @total_balance;
END;

SELECT dbo.fn_GetTotalBalanceByCustomer('079cd6ce-04a8-4c55-8c2b-b93189e9050a') AS total_balance;
```

110 %

Results Messages

	total_balance
1	12498.44

3. function `fn_GetActiveLoanCount` yang menghitung berapa jumlah pinjaman dengan status 'active' pada tabel `loans`.

```
SQLQuery_Functions...(MS\Zaidan (70)) - X
-- No. 3
CREATE FUNCTION fn_GetActiveLoanCount ()
RETURNS INT
AS
BEGIN
    DECLARE @active_loan_count INT;

    SELECT @active_loan_count = COUNT(*)
    FROM loans
    WHERE status = 'active';

    RETURN @active_loan_count;
END;

SELECT dbo.fn_GetActiveLoanCount() AS active_loan_count;
```

110 %

Results Messages

	active_loan_count
1	33

4. function `fn_GetAccountNetFlow` yang menerima `account_id` dan mengembalikan selisih antara total transaksi masuk dan keluar.

```
SQLQuery_Functions...(MS\Zaidan (70)) - X
-- No. 4
CREATE FUNCTION fn_GetAccountNetFlow (@account_id CHAR(36))
RETURNS DECIMAL(10,2)
AS
BEGIN
    DECLARE @net_flow DECIMAL(10,2);

    SELECT @net_flow = ISNULL(SUM(
        CASE
            WHEN tt.name IN ('deposit', 'transfer') AND (t.reference_account IS NULL OR t.reference_account = @account_id) THEN t.amount
            WHEN tt.name IN ('withdrawal', 'transfer') AND t.account_id = @account_id THEN -t.amount
            ELSE 0
        END
    ), 0)
    FROM transactions t
    JOIN transaction_types tt ON t.transaction_type_id = tt.transaction_type_id
    WHERE t.account_id = @account_id OR t.reference_account = @account_id;

    RETURN @net_flow;
END;

SELECT dbo.fn_GetAccountNetFlow('079cd6ce-04a8-4c55-8c2b-b93189e9050a') AS net_flow;
```

110 %

Results Messages

	net_flow
1	0.00

5. function fn\_GetCustomerFinancialSummary yang menerima customer\_id dan mengembalikan hasil total saldo + total pinjaman.

```
SQLQuery_Funcions...(MSI\Zaidan (70))  
  
-- No. 5  
CREATE FUNCTION fn_GetCustomerFinancialSummary (@customer_id CHAR(36))  
RETURNS DECIMAL(10,2)  
AS  
BEGIN  
    DECLARE @total_balance DECIMAL(10,2);  
    DECLARE @total_loan DECIMAL(10,2);  
  
    SELECT @total_balance = ISNULL(SUM(balance), 0)  
    FROM accounts  
    WHERE customer_id = @customer_id;  
  
    SELECT @total_loan = ISNULL(SUM(loan_amount), 0)  
    FROM loans  
    WHERE customer_id = @customer_id AND status = 'active';  
  
    RETURN @total_balance + @total_loan;  
END;  
  
SELECT dbo.fn_GetCustomerFinancialSummary('079cd6ce-04a8-4c55-8c2b-b93189e9050a') AS financial_summary;
```

110 %  
Results Messages  
financial\_summary  
1 12498.44