**WEEK 2 : CONTROL STRUCTURES**

**Exercise 3: Stored Procedures**

**Scenario 1: The bank needs to process monthly interest for all savings accounts.**

o**Question: Write a stored procedure ProcessMonthlyInterest that calculates and updates the balance of all savings accounts by applying an interest rate of 1% to the current balance.**

**CODE :**

CREATE OR REPLACE PROCEDURE ProcessMonthlyInterest AS

BEGIN

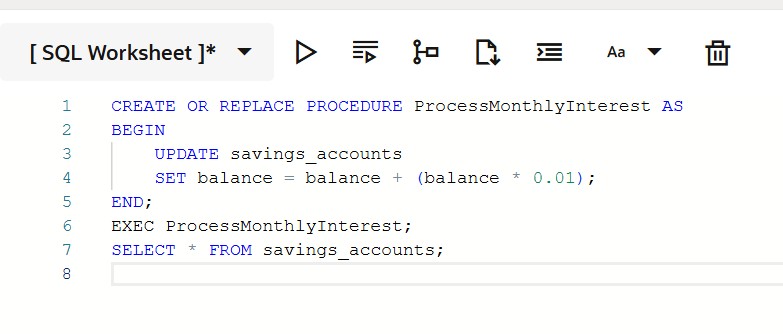
UPDATE savings\_accounts

SET balance = balance + (balance \* 0.01);

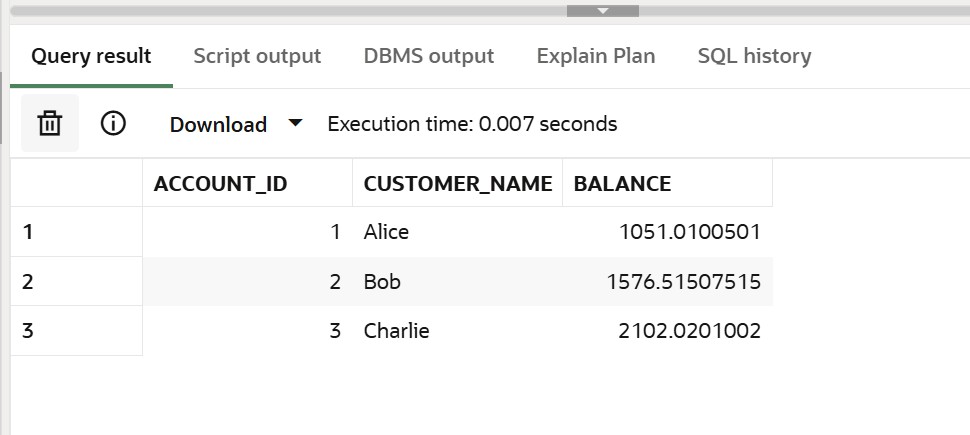
END;

EXEC ProcessMonthlyInterest;

SELECT \* FROM savings\_accounts;



**OUTPUTS :**



**Scenario 2: The bank wants to implement a bonus scheme for employees based on their performance.**

o**Question: Write a stored procedure UpdateEmployeeBonus that updates the salary of employees in a given department by adding a bonus percentage passed as a parameter.**

**CODE :**

CREATE OR REPLACE PROCEDURE UpdateEmployeeBonus ( dept IN VARCHAR2, bonus\_percent IN NUMBER

) AS

BEGIN

UPDATE employees

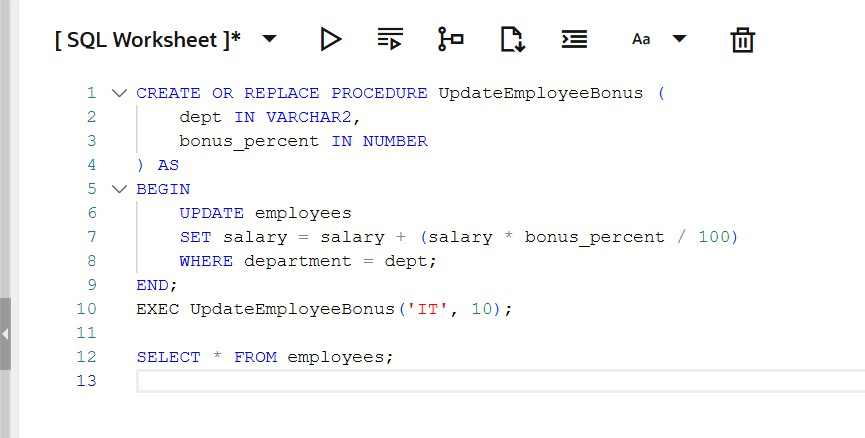
SET salary = salary + (salary \* bonus\_percent / 100)

WHERE department = dept;

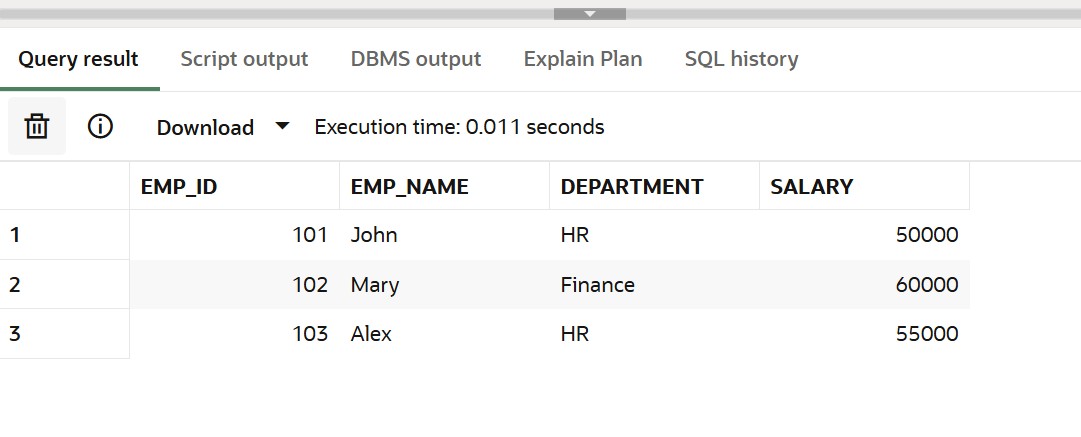
END;

EXEC UpdateEmployeeBonus('IT', 10);

SELECT \* FROM employees;



**OUTPUT :**



**Scenario 3: Customers should be able to transfer funds between their accounts.**

o**Question: Write a stored procedure TransferFunds that transfers a specified amount from one account to another, checking that the source account has sufficient balance before making the transfer.**

**CODE :**

CREATE OR REPLACE PROCEDURE TransferFunds ( from\_account IN NUMBER,

to\_account IN NUMBER, amount IN NUMBER

) AS

from\_balance NUMBER;

BEGIN

SELECT balance INTO from\_balance FROM bank\_accounts WHERE account\_id = from\_account;

IF from\_balance < amount THEN

DBMS\_OUTPUT.PUT\_LINE('Insufficient balance!');

ELSE

UPDATE bank\_accounts

SET balance = balance - amount

WHERE account\_id = from\_account;

UPDATE bank\_accounts

SET balance = balance + amount

WHERE account\_id = to\_account;

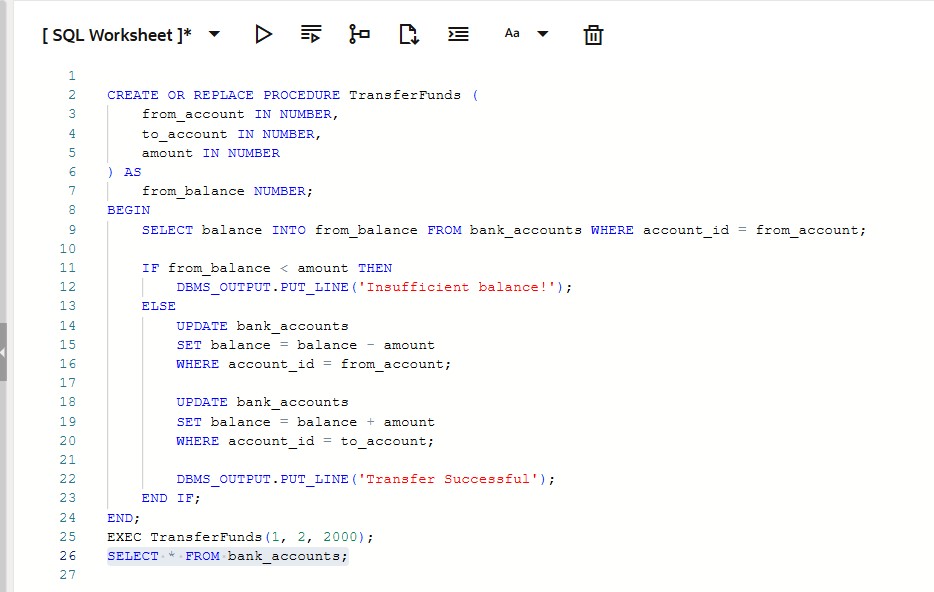
DBMS\_OUTPUT.PUT\_LINE('Transfer Successful');

END IF;

END;

EXEC TransferFunds(1, 2, 2000);

SELECT \* FROM bank\_accounts;



**OUTPUT:**

