**PLSQL\_Exercises**

**2)Stored Procedures**

**\* Scenario 1:** Apply 1% interest to all Savings accounts.

CREATE OR REPLACE PROCEDURE ProcessMonthlyInterest AS

BEGIN

FOR acc IN (

SELECT AccountID, Balance

FROM Accounts

WHERE AccountType = 'Savings'

) LOOP

UPDATE Accounts

SET Balance = Balance + (Balance \* 0.01),

LastModified = SYSDATE

WHERE AccountID = acc.AccountID;

END LOOP;

DBMS\_OUTPUT.PUT\_LINE('Monthly interest applied to all Savings accounts.');

END;

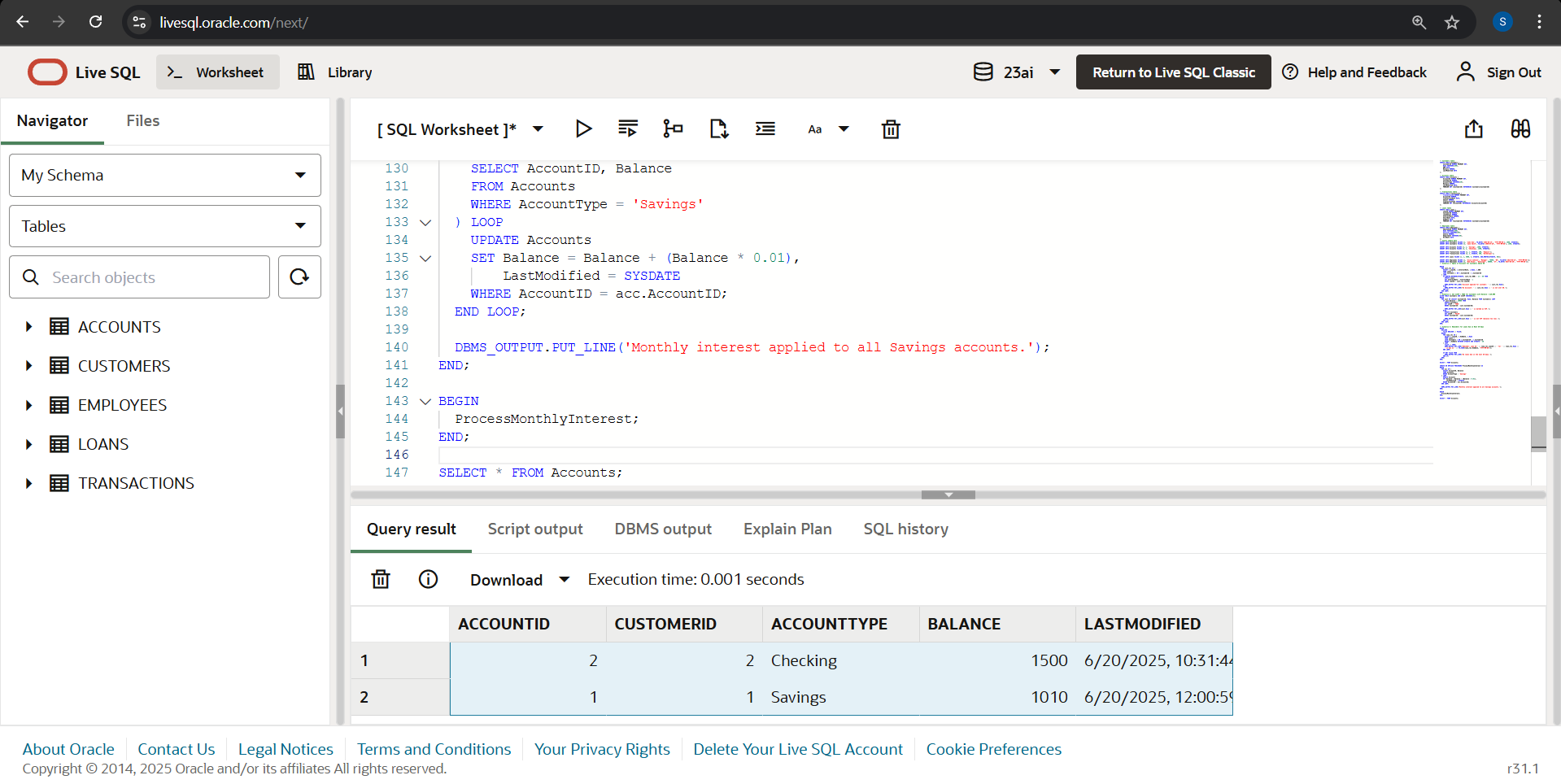
BEGIN

ProcessMonthlyInterest;

END;

SELECT \* FROM Accounts;

**Output:**



* Monthly interest applied to all Savings accounts.
* Account ID 1: Balance updated from 1000 to 1010

**\* Scenario 2:** Bonus for Employees in IT Department

CREATE OR REPLACE PROCEDURE UpdateEmployeeBonus (

dept\_name IN VARCHAR2,

bonus\_percent IN NUMBER

) AS

BEGIN

UPDATE Employees

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

WHERE Department = dept\_name;

DBMS\_OUTPUT.PUT\_LINE('Bonus applied to employees in department: ' || dept\_name);

END;

BEGIN

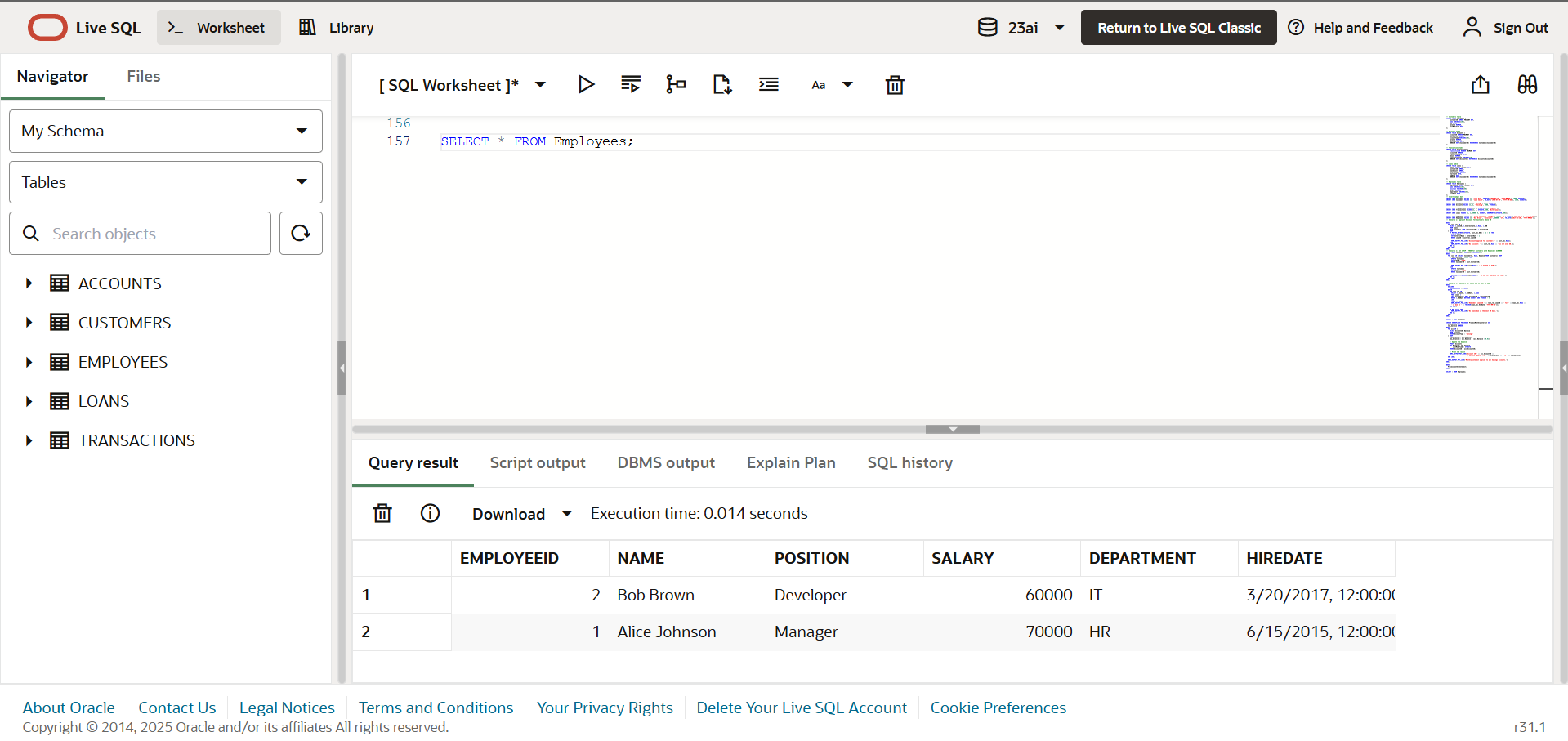
UpdateEmployeeBonus('IT', 10);

END;

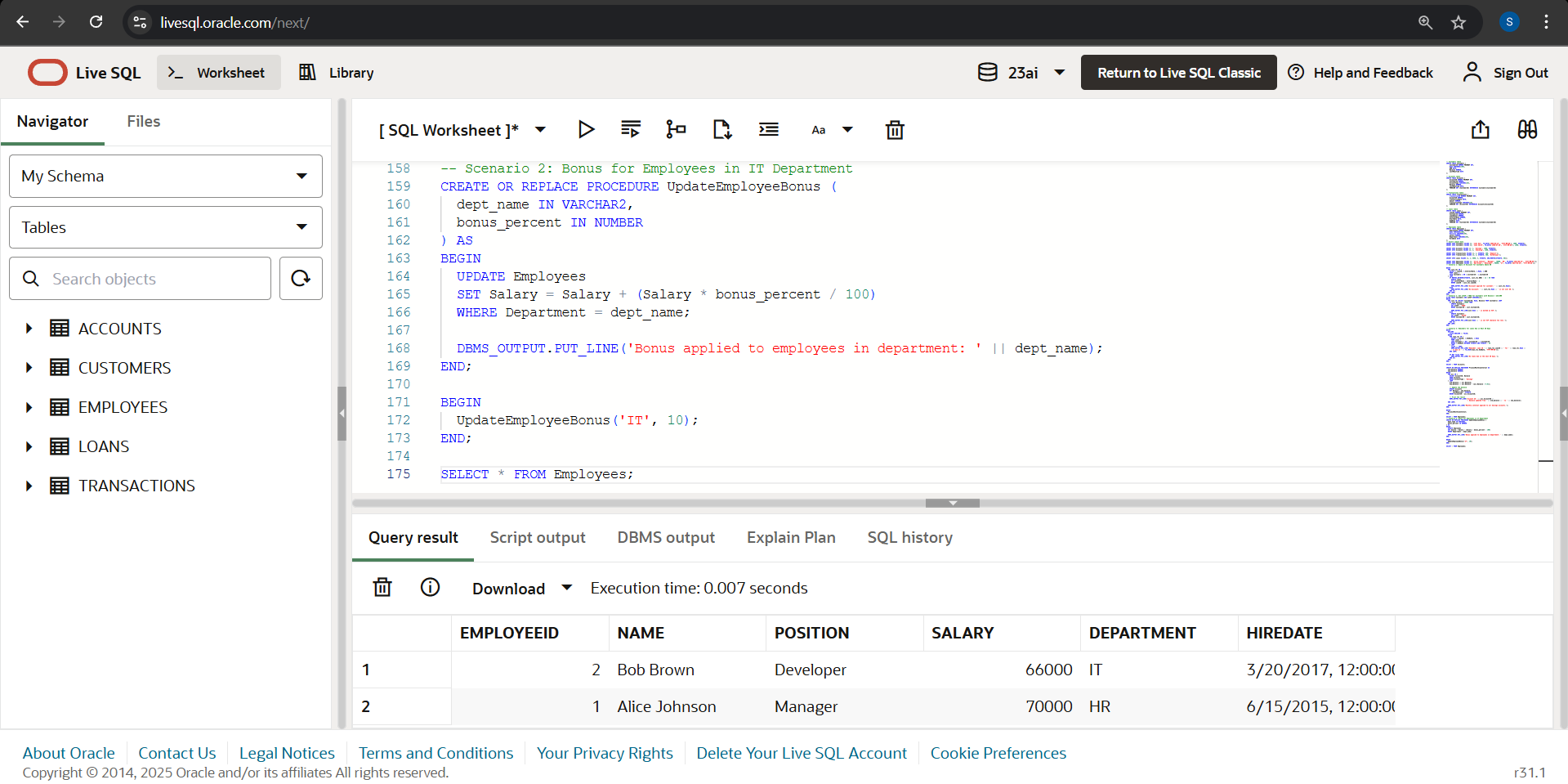
SELECT \* FROM Employees;

**Output:**

**Before:**



**After:**



* Bonus applied to employees in department: IT

**\* Scenario 3:** Transfer Funds Between Accounts

CREATE OR REPLACE PROCEDURE TransferFunds (

from\_account\_id IN NUMBER,

to\_account\_id IN NUMBER,

amount IN NUMBER

) AS

from\_balance NUMBER;

BEGIN

SELECT Balance INTO from\_balance

FROM Accounts

WHERE AccountID = from\_account\_id;

IF from\_balance < amount THEN

DBMS\_OUTPUT.PUT\_LINE('Transfer failed: Insufficient balance.');

ELSE

UPDATE Accounts

SET Balance = Balance - amount,

LastModified = SYSDATE

WHERE AccountID = from\_account\_id;

UPDATE Accounts

SET Balance = Balance + amount,

LastModified = SYSDATE

WHERE AccountID = to\_account\_id;

DBMS\_OUTPUT.PUT\_LINE('Transfer of ' || amount || ' from Account ' || from\_account\_id || ' to Account ' || to\_account\_id || ' completed.');

END IF;

EXCEPTION

WHEN NO\_DATA\_FOUND THEN

DBMS\_OUTPUT.PUT\_LINE('One or both account IDs not found.');

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('Error occurred: ' || SQLERRM);

END;

BEGIN

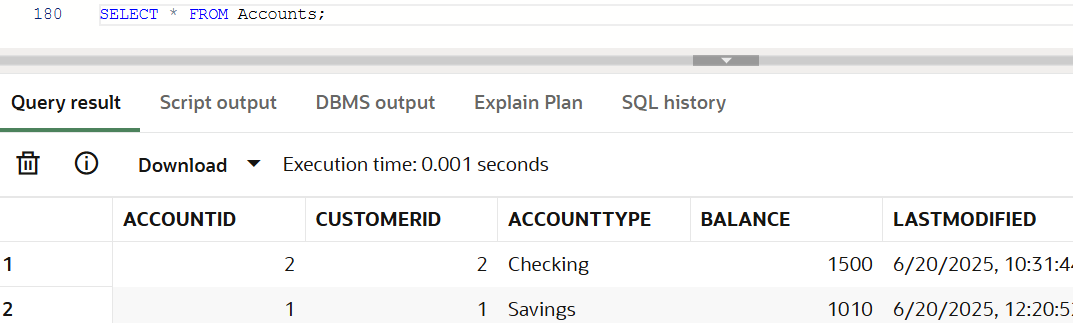
TransferFunds(1, 2, 500);

END;

SELECT \* FROM Accounts;

**Output :**

**Before:**

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**After:**

Transfer of 500 from Account 1 to Account 2 completed.

Savings - 510 ← 1010 – 500

Checking - 2000 ← 1500 + 500

