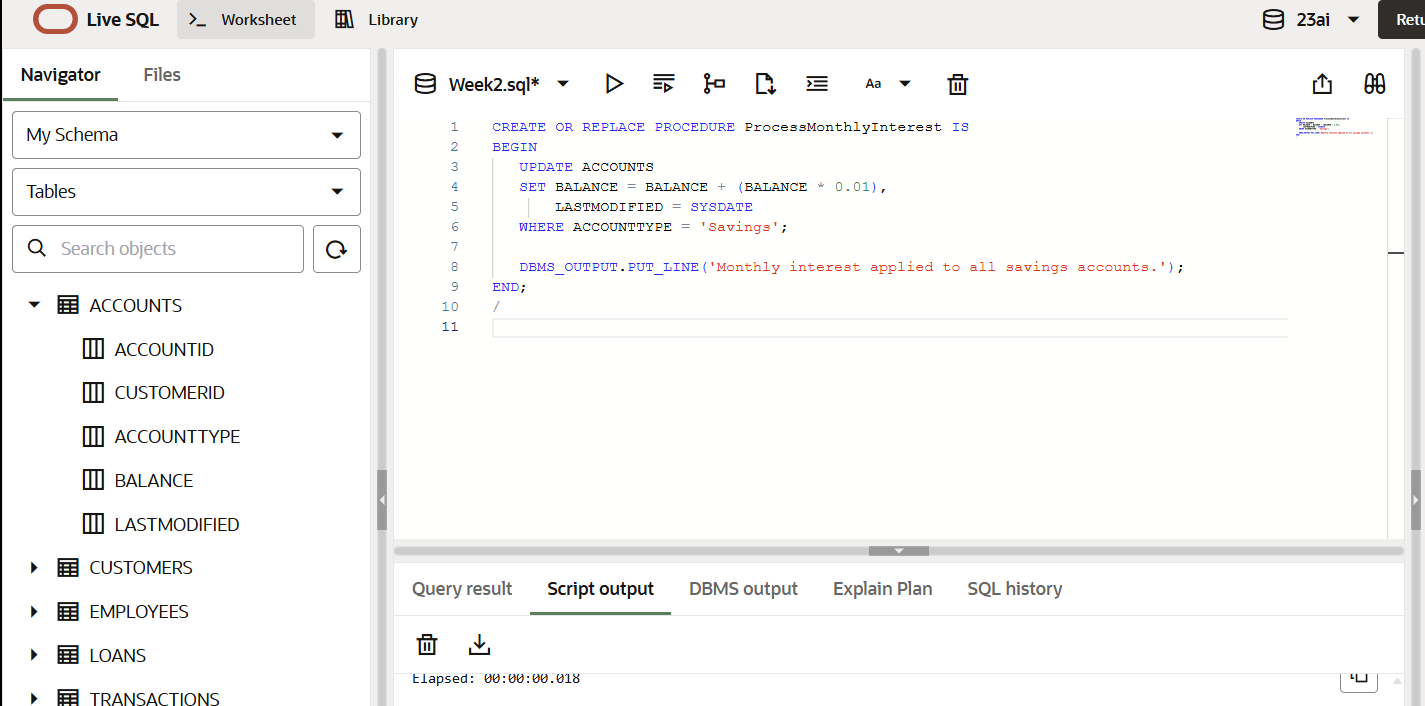
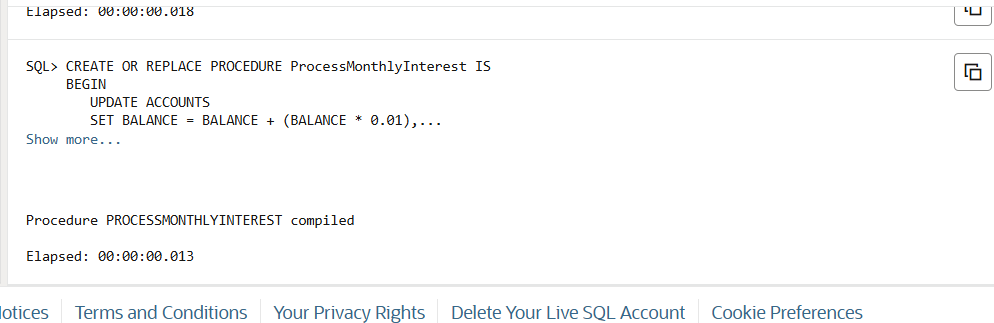
**Scenario 1:** The bank needs to process monthly interest for all savings accounts.

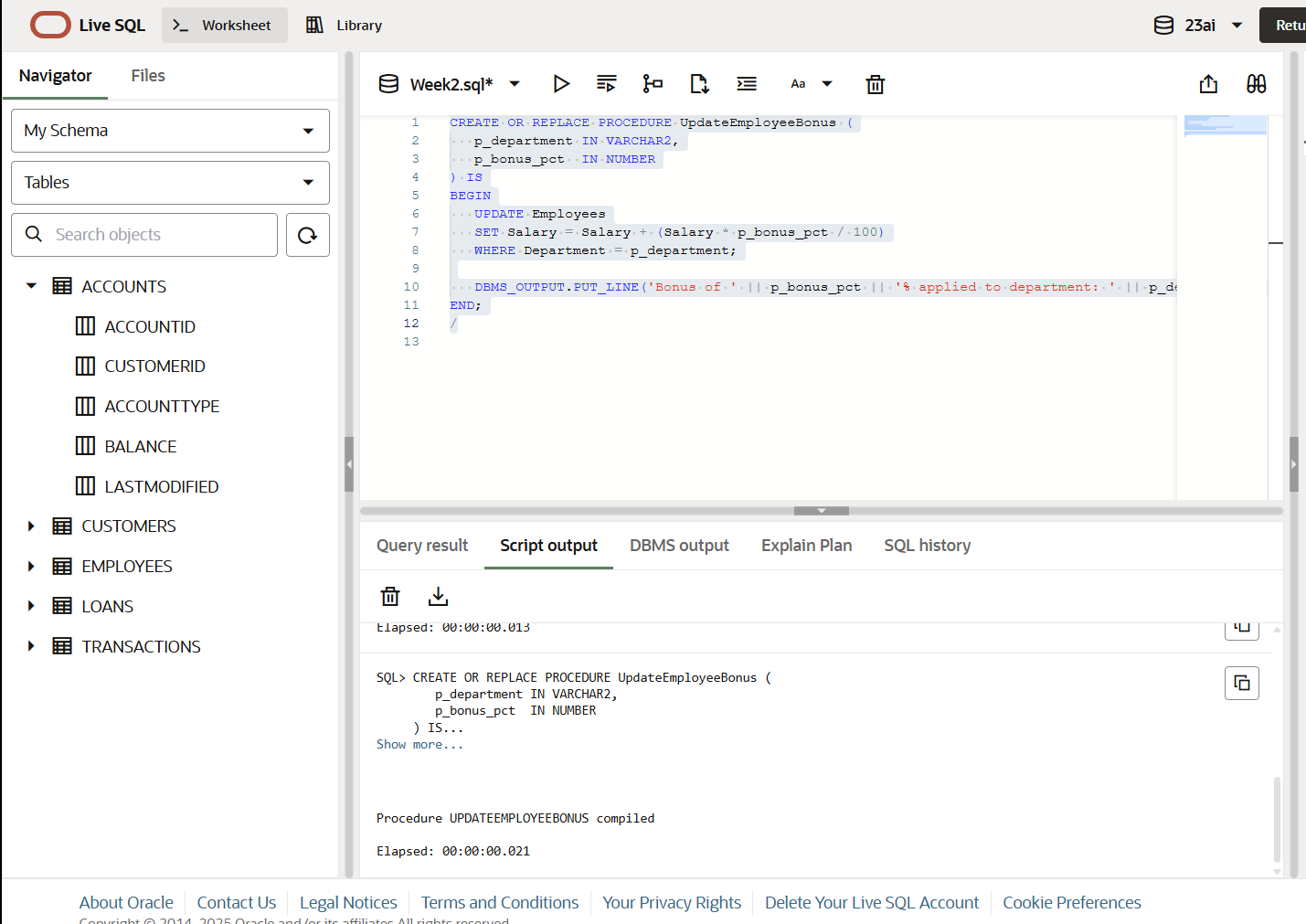
* + **Question:** Write a stored procedure **ProcessMonthlyInterest** that calculates and updates the balance of all savings accounts by applying an interest rate of 1% to the current balance.



OUTPUT:  
  
  


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

* + **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.



BEGIN

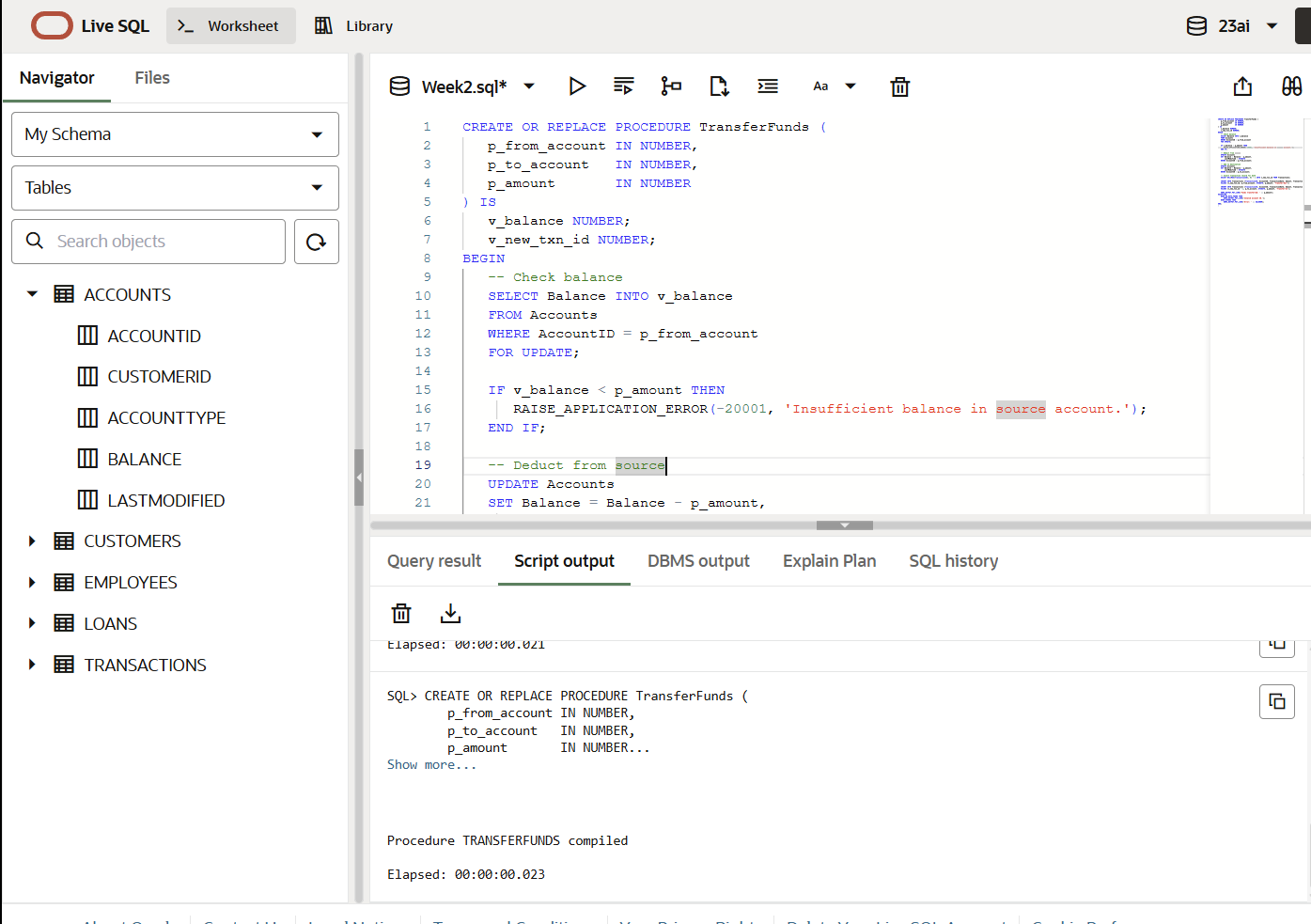
UpdateEmployeeBonus('IT', 10);

END;

/

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

* + **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.



CREATE OR REPLACE PROCEDURE TransferFunds (

   p\_from\_account IN NUMBER,

   p\_to\_account   IN NUMBER,

   p\_amount       IN NUMBER

) IS

   v\_balance NUMBER;

   v\_new\_txn\_id NUMBER;

BEGIN

   -- Check balance

   SELECT Balance INTO v\_balance

   FROM Accounts

   WHERE AccountID = p\_from\_account

   FOR UPDATE;

   IF v\_balance < p\_amount THEN

      RAISE\_APPLICATION\_ERROR(-20001, 'Insufficient balance in source account.');

   END IF;

   -- Deduct from source

   UPDATE Accounts

   SET Balance = Balance - p\_amount,

       LastModified = SYSDATE

   WHERE AccountID = p\_from\_account;

   -- Add to destination

   UPDATE Accounts

   SET Balance = Balance + p\_amount,

       LastModified = SYSDATE

   WHERE AccountID = p\_to\_account;

   -- Insert transaction record for both

   SELECT NVL(MAX(TransactionID), 0) + 1 INTO v\_new\_txn\_id FROM Transactions;

   INSERT INTO Transactions (TransactionID, AccountID, TransactionDate, Amount, TransactionType)

   VALUES (v\_new\_txn\_id, p\_from\_account, SYSDATE, p\_amount, 'Transfer-Out');

   INSERT INTO Transactions (TransactionID, AccountID, TransactionDate, Amount, TransactionType)

   VALUES (v\_new\_txn\_id + 1, p\_to\_account, SYSDATE, p\_amount, 'Transfer-In');

   DBMS\_OUTPUT.PUT\_LINE('Funds transferred: ' || p\_amount);

EXCEPTION

   WHEN NO\_DATA\_FOUND THEN

      DBMS\_OUTPUT.PUT\_LINE('Invalid account ID.');

   WHEN OTHERS THEN

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

END;

/