**EXERCISE 3: STORED PROCEDURE**

**CODE:**

**CREATING TABLES FOR THAT SCENARIO:**

BEGIN  
EXECUTE IMMEDIATE 'DROP TABLE accounts';  
EXECUTE IMMEDIATE 'DROP TABLE employees';  
EXCEPTION  
WHEN OTHERS THEN NULL;  
END;  
/

-- Accounts Table  
CREATE TABLE accounts (  
account\_id NUMBER PRIMARY KEY,  
customer\_id NUMBER,  
account\_type VARCHAR2(20),  
balance NUMBER  
);

-- Employees Table  
CREATE TABLE employees (  
emp\_id NUMBER PRIMARY KEY,  
name VARCHAR2(100),  
department VARCHAR2(50),  
salary NUMBER  
);

-- Sample Data  
INSERT INTO accounts VALUES (101, 1, 'savings', 1000);  
INSERT INTO accounts VALUES (102, 1, 'savings', 2000);  
INSERT INTO accounts VALUES (103, 2, 'checking', 3000);

INSERT INTO employees VALUES (1, 'John', 'IT', 5000);  
INSERT INTO employees VALUES (2, 'Jane', 'HR', 4000);  
INSERT INTO employees VALUES (3, 'Bob', 'IT', 5500);

COMMIT;

**SCENARIO 1:**

CREATE OR REPLACE PROCEDURE ProcessMonthlyInterest IS  
BEGIN  
UPDATE accounts  
SET balance = balance + (balance \* 0.01)  
WHERE account\_type = 'savings';

COMMIT;  
END;  
/

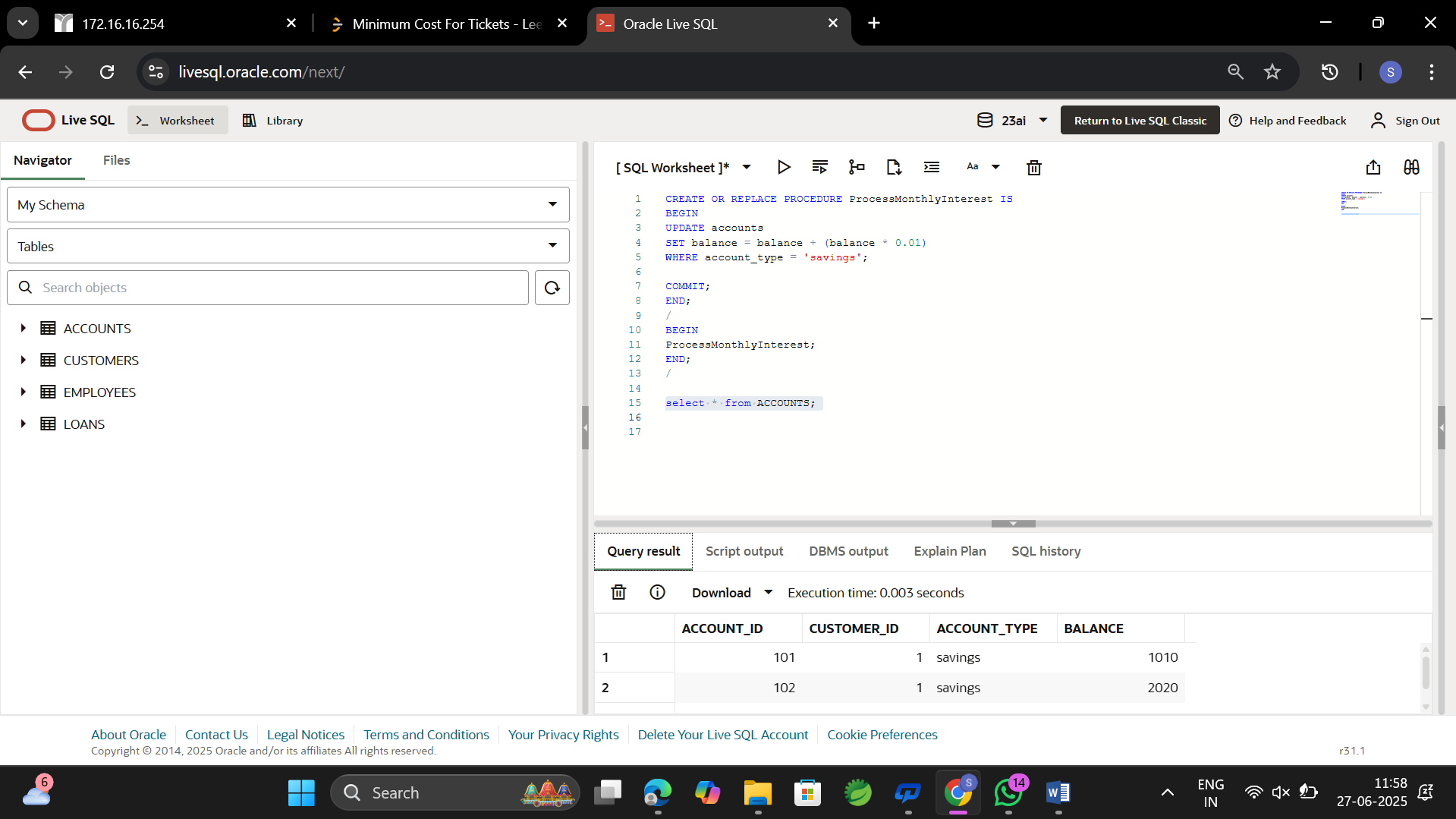
**RUN THE PROCEDURE**:

BEGIN  
ProcessMonthlyInterest;  
END;  
/

Check result:

SELECT \* FROM accounts;

**OUTPUT:**

****

**SCENARIO 2:**

CREATE OR REPLACE PROCEDURE UpdateEmployeeBonus(  
dept\_name IN VARCHAR2,  
bonus\_pct IN NUMBER  
) IS  
BEGIN  
UPDATE employees  
SET salary = salary + (salary \* bonus\_pct / 100)  
WHERE department = dept\_name;

COMMIT;  
END;  
/

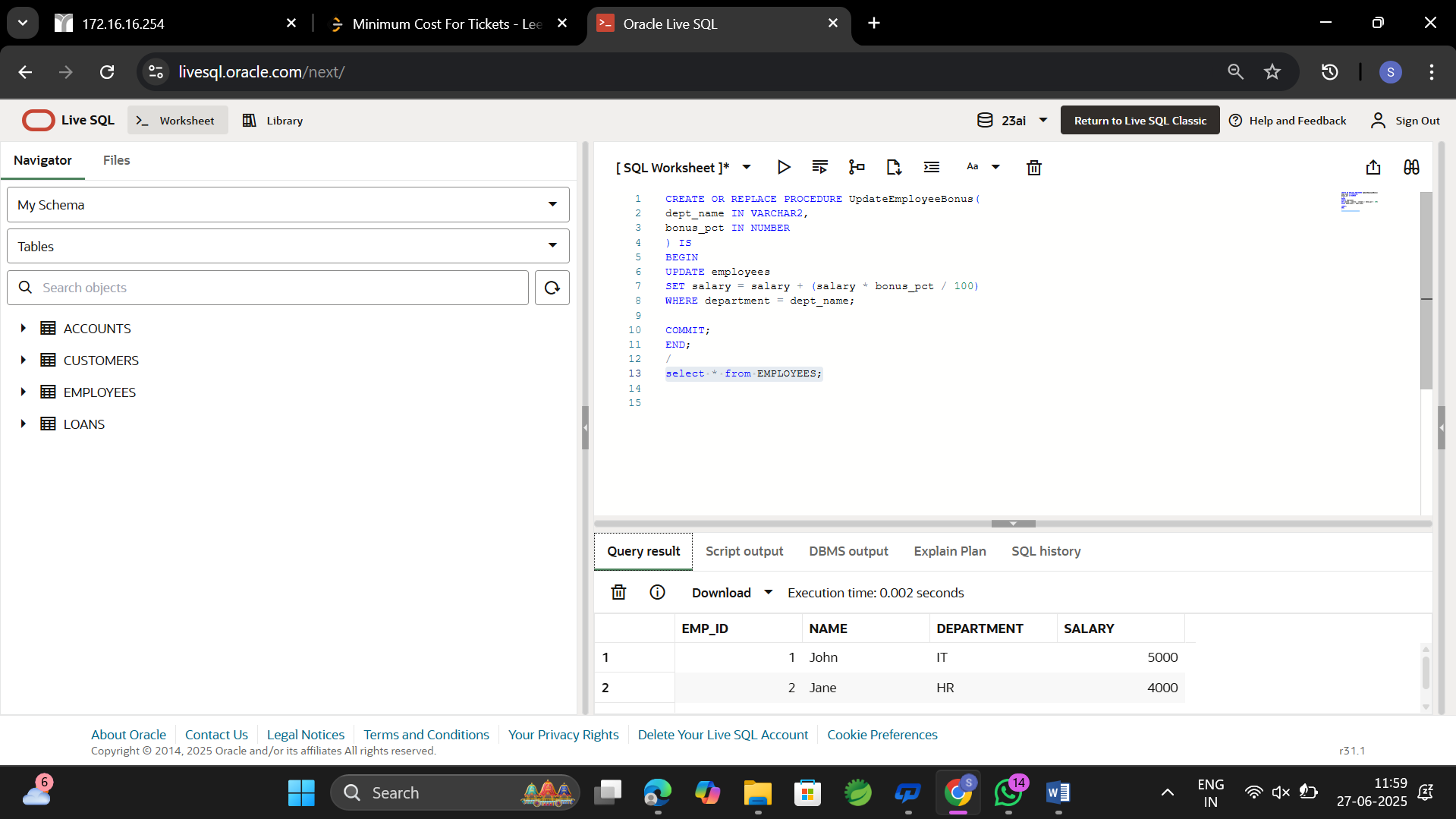
**Run the procedure :**

BEGIN  
UpdateEmployeeBonus('IT', 10);  
END;  
/

Check result:

SELECT \* FROM employees;

**OUTPUT:**



**SCENARIO 3:**

CREATE OR REPLACE PROCEDURE TransferFunds(  
from\_acct IN NUMBER,  
to\_acct IN NUMBER,  
amount IN NUMBER  
) IS  
insufficient\_balance EXCEPTION;  
BEGIN  
-- Check balance  
DECLARE  
from\_balance NUMBER;  
BEGIN  
SELECT balance INTO from\_balance FROM accounts WHERE account\_id = from\_acct;

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IF from\_balance < amount THEN

RAISE insufficient\_balance;

END IF;

END;

-- Perform transfer  
UPDATE accounts  
SET balance = balance - amount  
WHERE account\_id = from\_acct;

UPDATE accounts  
SET balance = balance + amount  
WHERE account\_id = to\_acct;

COMMIT;

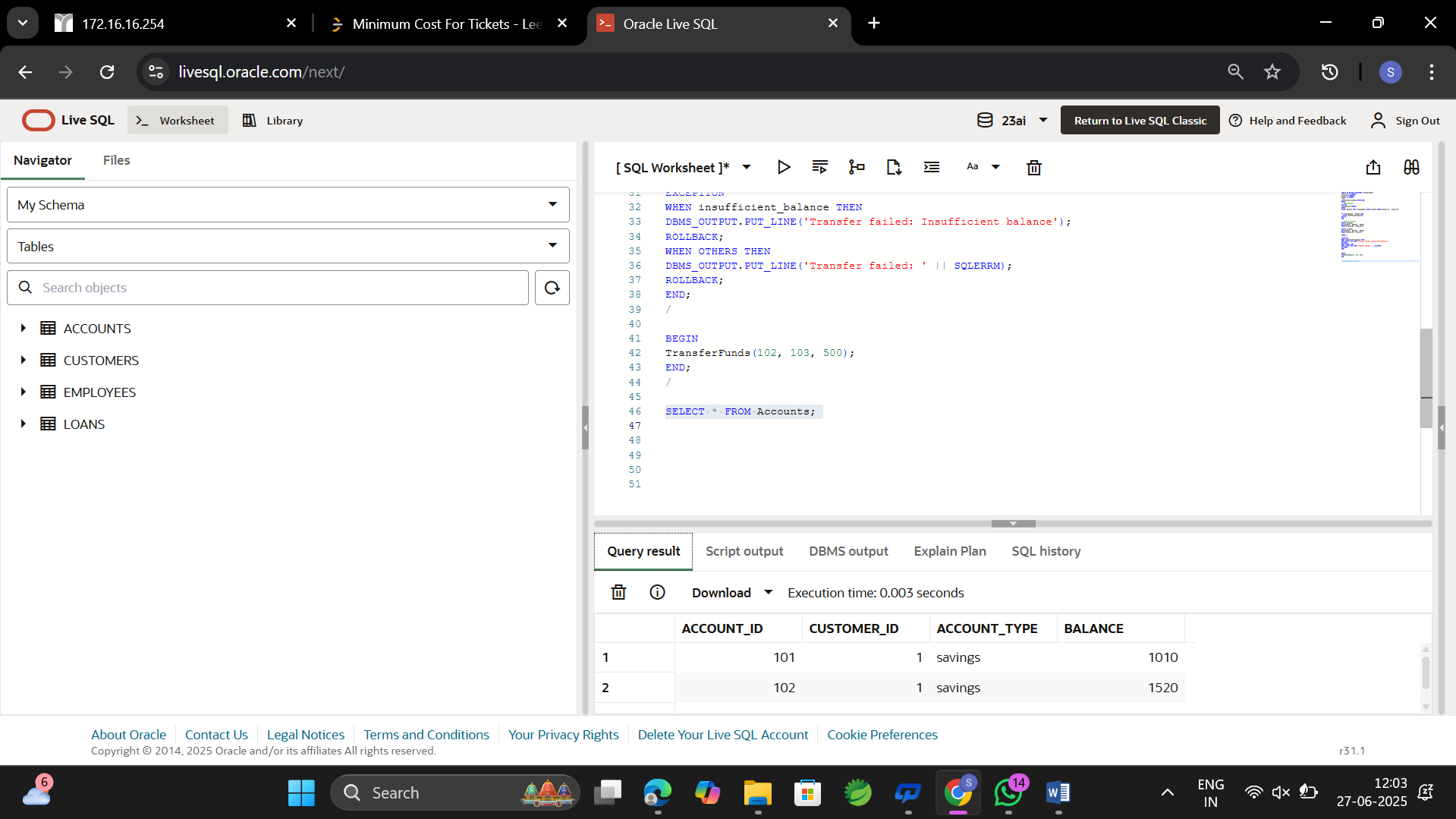
EXCEPTION  
WHEN insufficient\_balance THEN  
DBMS\_OUTPUT.PUT\_LINE('Transfer failed: Insufficient balance');  
ROLLBACK;  
WHEN OTHERS THEN  
DBMS\_OUTPUT.PUT\_LINE('Transfer failed: ' || SQLERRM);  
ROLLBACK;  
END;  
/

**Run the procedure :**

BEGIN  
TransferFunds(102, 103, 500);  
END;  
/

SELECT \* FROM accounts;

**OUTPUT:**

****