**1.WITH ONE TABLE**

a) CREATE TABLE BANK1(acc\_id INT PRIMARY KEY,acc\_name VARCHAR(100),balance DECIMAL(10,2));

INSERT INTO BANK1 VALUES(1,'John',1000.0);

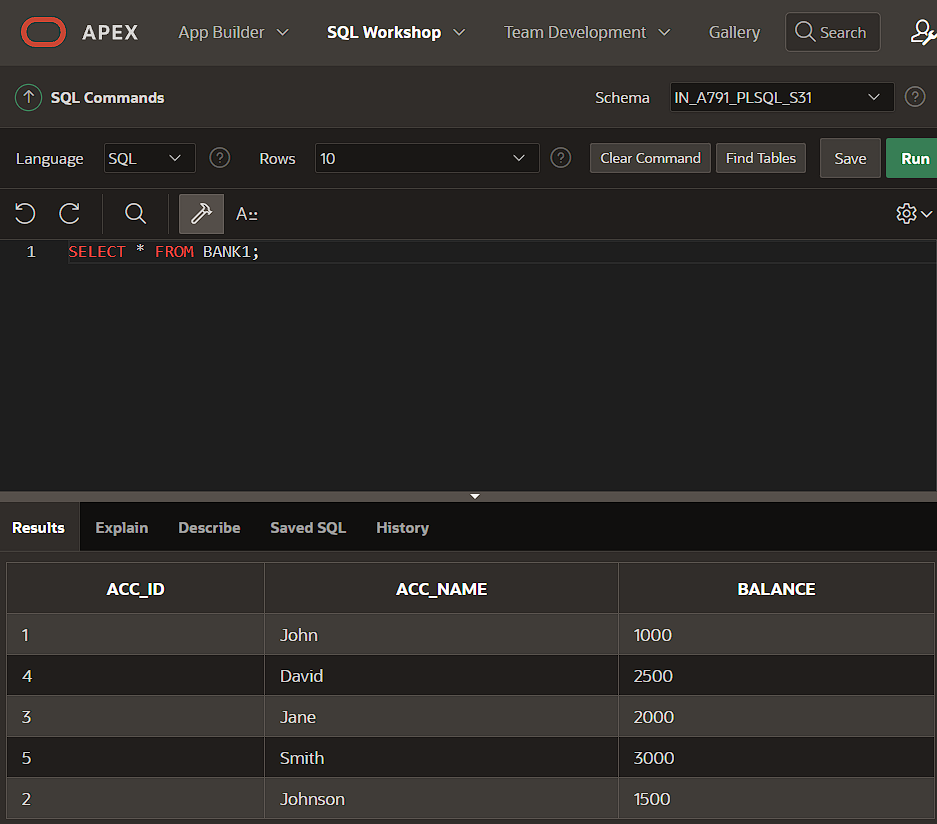
INSERT INTO BANK1 VALUES(2,'Johnson',1500.0);

INSERT INTO BANK1 VALUES(3,'Jane',2000.0);

INSERT INTO BANK1 VALUES(4,'David',2500.0);

INSERT INTO BANK1 VALUES(5,'Smith',3000.0);

SELECT \* FROM BANK1;



MERGE INTO BANK1 b USING(

SELECT 4 AS acc\_id FROM DUAL

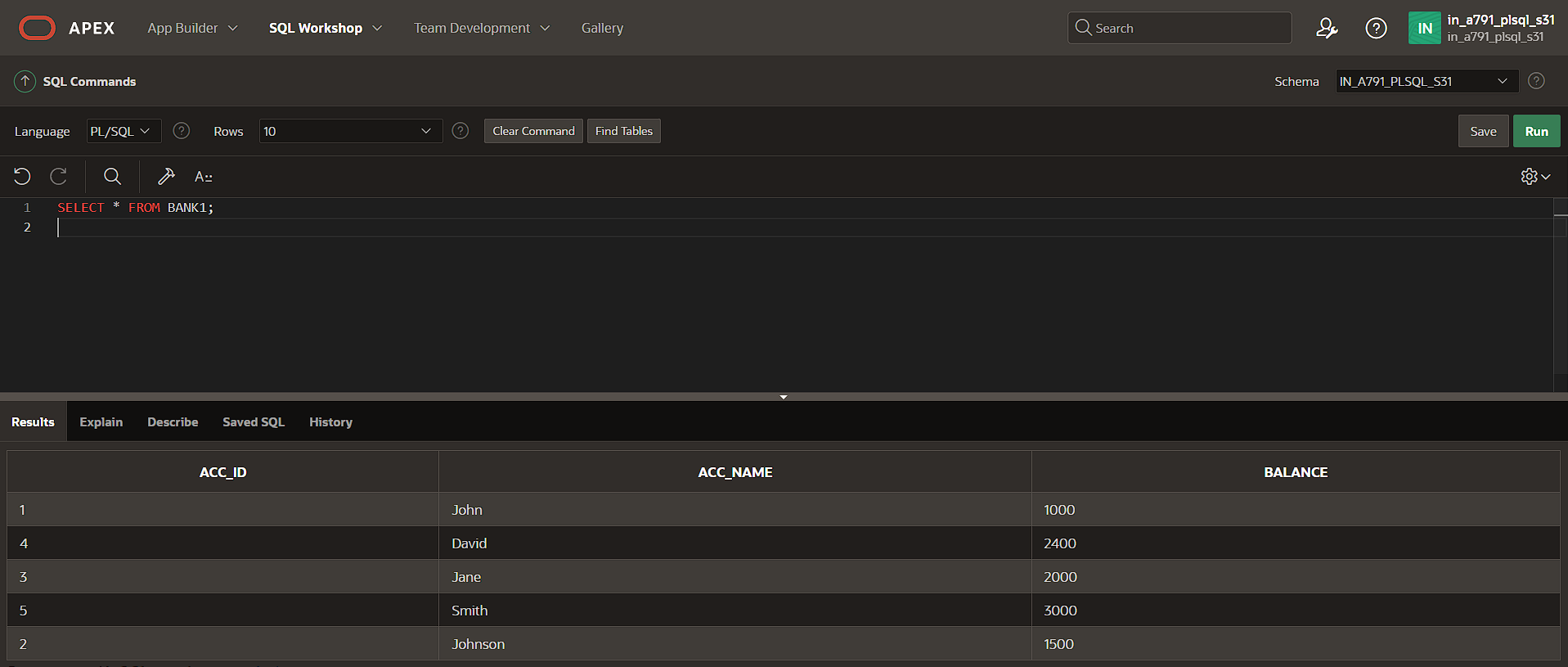
)t

ON(b.acc\_id=t.acc\_id)

WHEN MATCHED THEN

UPDATE SET b.balance=b.balance-100;

SELECT \* FROM BANK1;



b) BEGIN

UPDATE BANK1 SET balance=balance-100.0 WHERE acc\_id=1;

SAVEPOINT S1;

UPDATE BANK1 SET balance=balance-200.0 WHERE acc\_id=2;

SAVEPOINT S2;

UPDATE BANK1 SET balance=balance-300.0 WHERE acc\_id=3;

SAVEPOINT S3;

UPDATE BANK1 SET balance=balance-400.0 WHERE acc\_id=4;

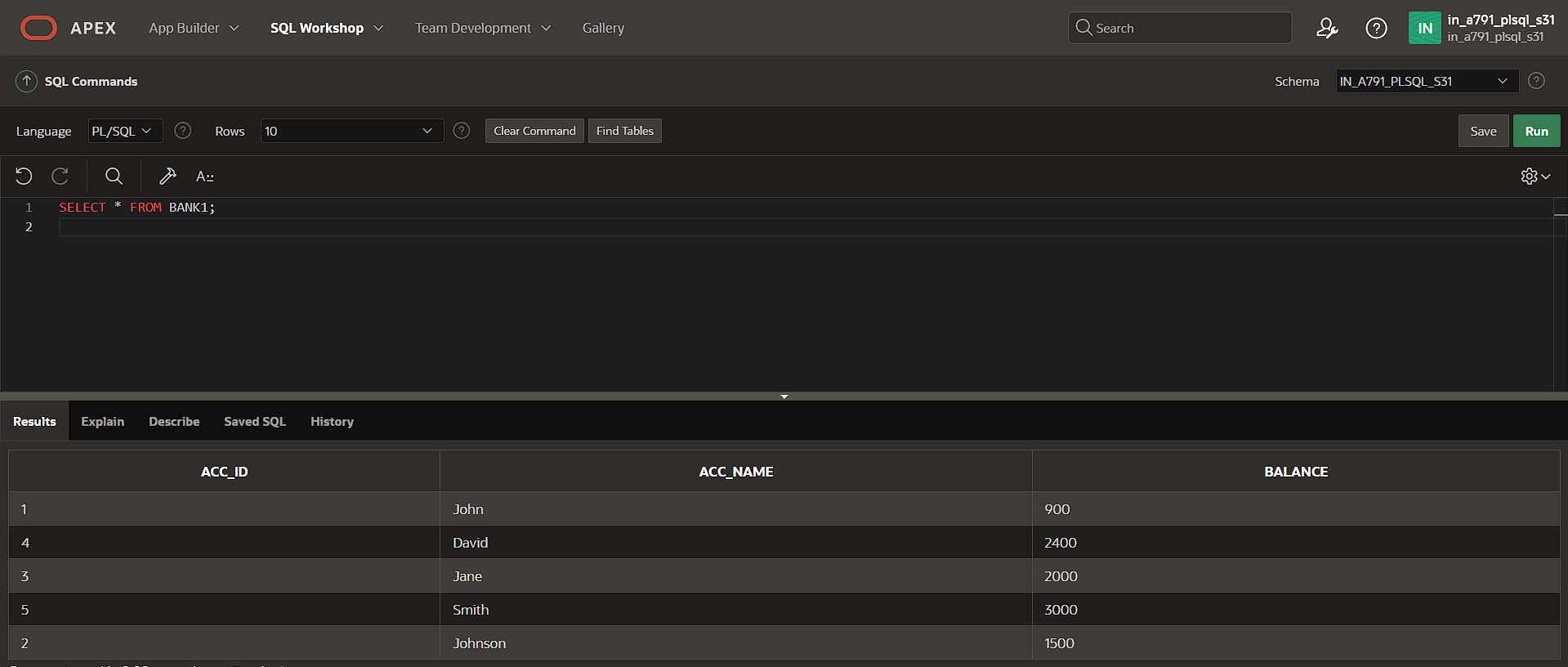
ROLLBACK TO S1;

COMMIT;

END;

/

SELECT \*FROM BANK1;



**2.WITH TWO TABLES**

a) CREATE TABLE BANK (acc\_id INT PRIMARY KEY,acc\_name VARCHAR(100),balance DECIMAL(10,2));

INSERT INTO BANK VALUES(1,'John',1000.0);

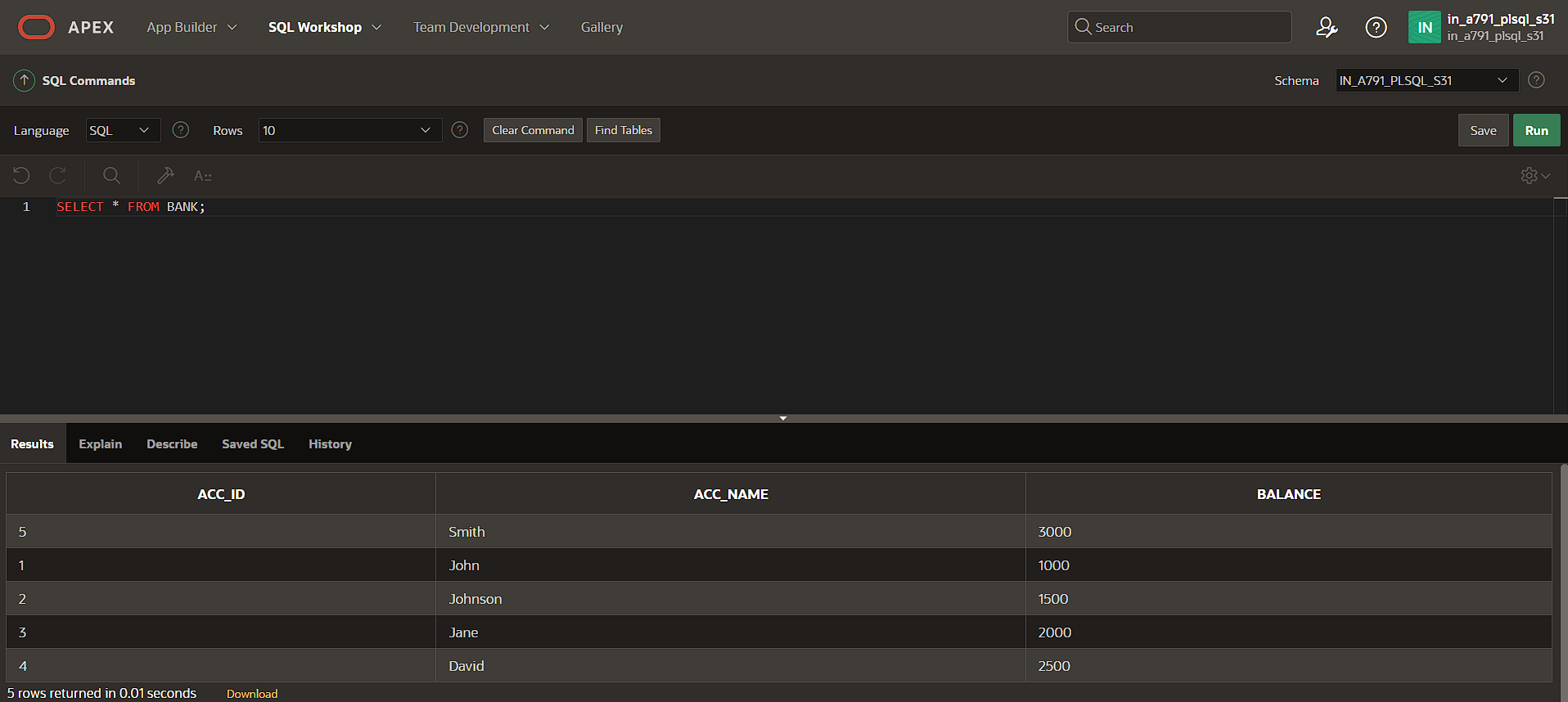
INSERT INTO BANK VALUES(2,'Johnson',1500.0);

INSERT INTO BANK VALUES(3,'Jane',2000.0);

INSERT INTO BANK VALUES(4,'David',2500.0);

INSERT INTO BANK VALUES(5,'Smith',3000.0);

SELECT \* FROM BANK;



CREATE TABLE TRANSACTION(trans\_id INT PRIMARY KEY,acc\_id INT,trans\_type VARCHAR(50),amount DECIMAL(10, 2),FOREIGN KEY(acc\_id) REFERENCES BANK(acc\_id));

INSERT INTO TRANSACTION VALUES(101,1,'Deposit',500.0);

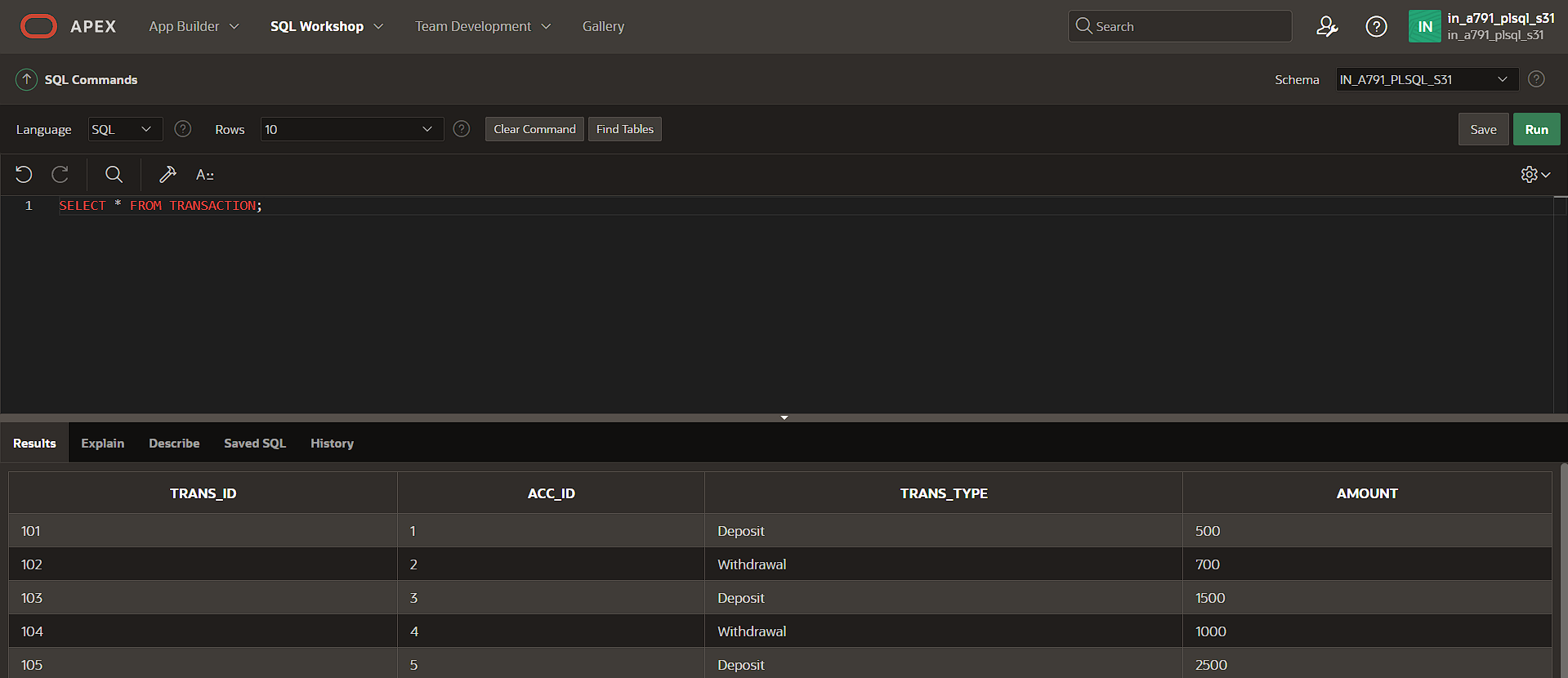
INSERT INTO TRANSACTION VALUES (102,2,'Withdrawal',700.0);

INSERT INTO TRANSACTION VALUES (103,3,'Deposit',1500.0);

INSERT INTO TRANSACTION VALUES (104,4,' Withdrawal',1000.0);

INSERT INTO TRANSACTION VALUES (105,5,'Deposit',2500.0);

SELECT \* FROM TRANSACTION;



MERGE INTO BANK b USING(

SELECT acc\_id,amount

FROM TRANSACTION

WHERE trans\_type ='Withdrawal'

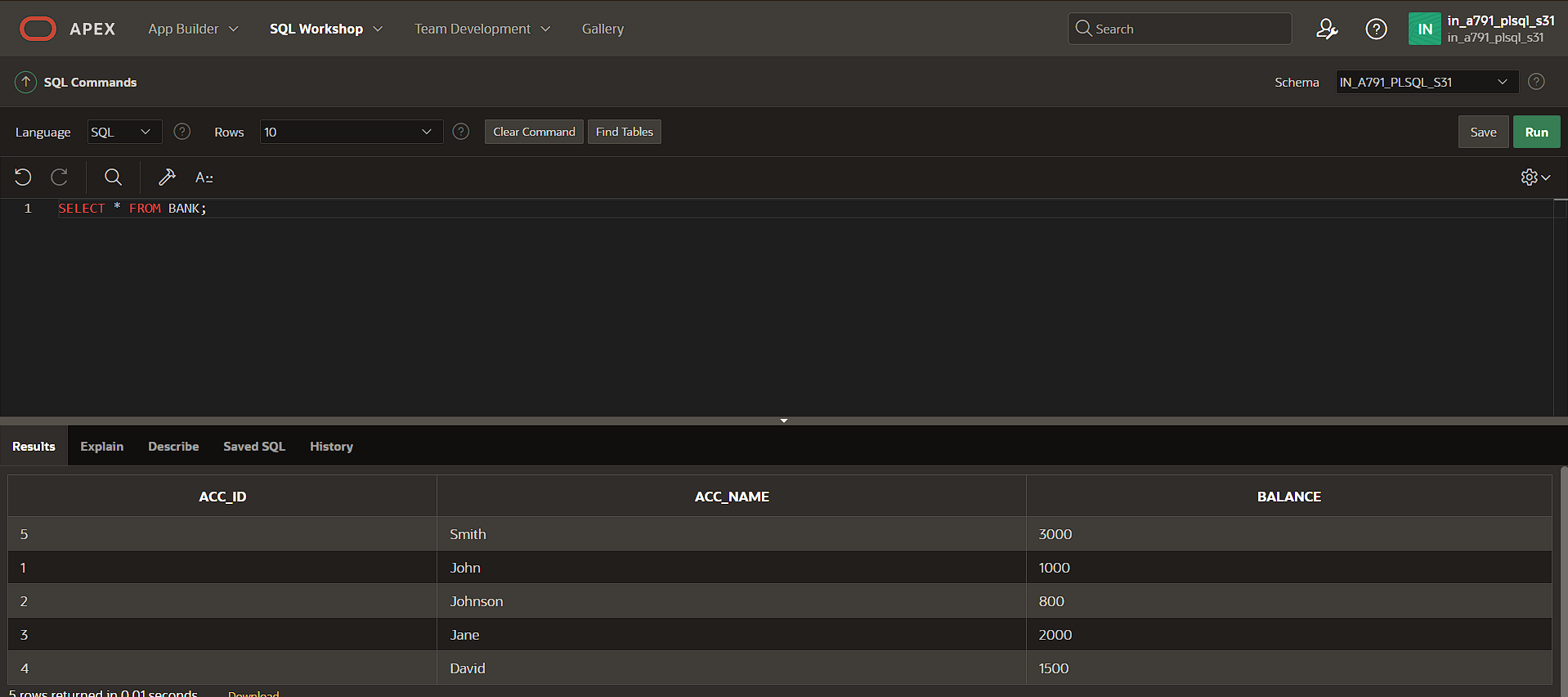
)t

ON(b.acc\_id=t.acc\_id)

WHEN MATCHED THEN

UPDATE SET b.balance=b.balance-t.amount;

SELECT \* FROM BANK;



b) BEGIN

UPDATE BANK SET balance=balance-100.0 WHERE acc\_id=1;

INSERT INTO TRANSACTION VALUES(106,1,'Withdrawal',100.0);

SAVEPOINT S1;

UPDATE BANK SET balance=balance-200.0 WHERE acc\_id=2;

INSERT INTO TRANSACTION VALUES(107,2,'Withdrawal',200.0);

SAVEPOINT S2;

UPDATE BANK SET balance=balance-300.0 WHERE acc\_id=3;

INSERT INTO TRANSACTION VALUES(108,3,'Withdrawal',300.0);

SAVEPOINT S3;

UPDATE BANK SET balance=balance-500.0 WHERE acc\_id=4;

INSERT INTO TRANSACTION VALUES(109,4,'Withdrawal',400.0);

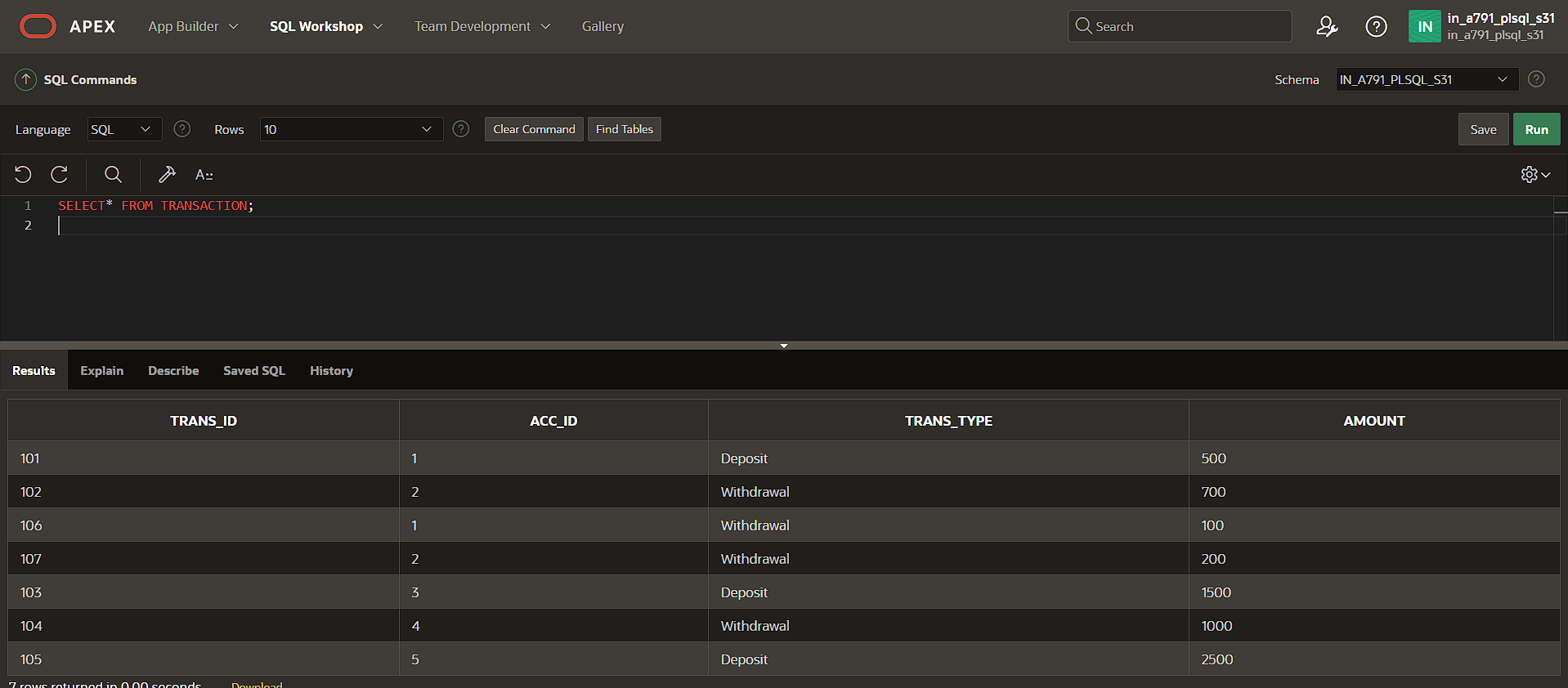
ROLLBACK TO S2;

COMMIT;

END;

/

SELECT \* FROM TRANSACTION;



SELECT\* FROM BANK;

