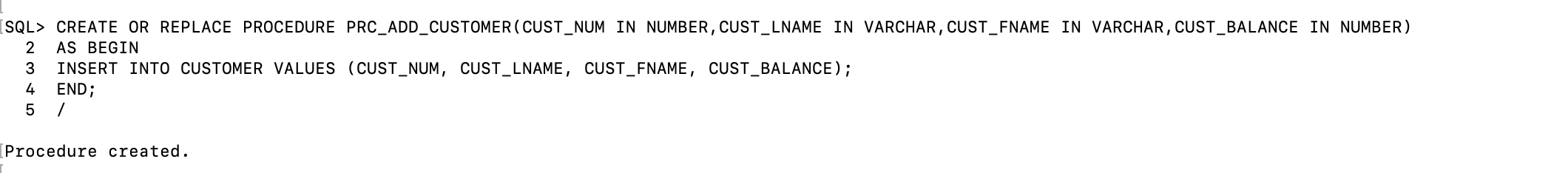
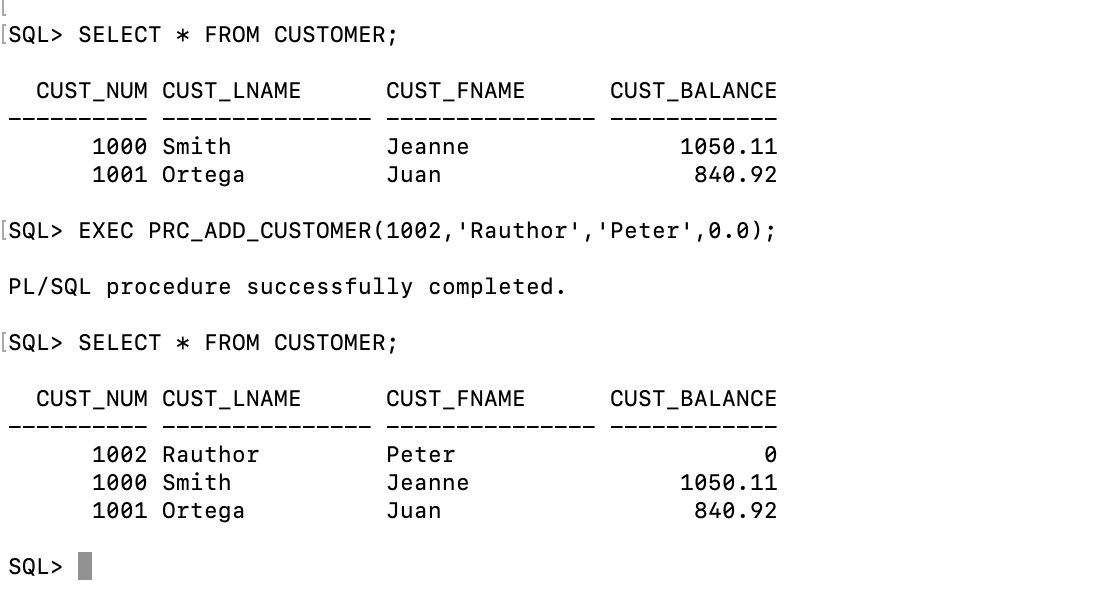
1. write a procedure named PRC\_ADD\_CUSTOMER to add a new customer to CUSTOMER table.

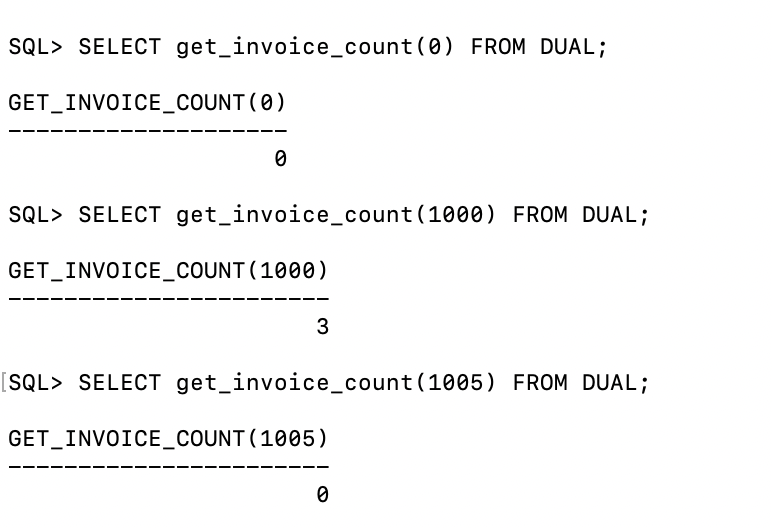
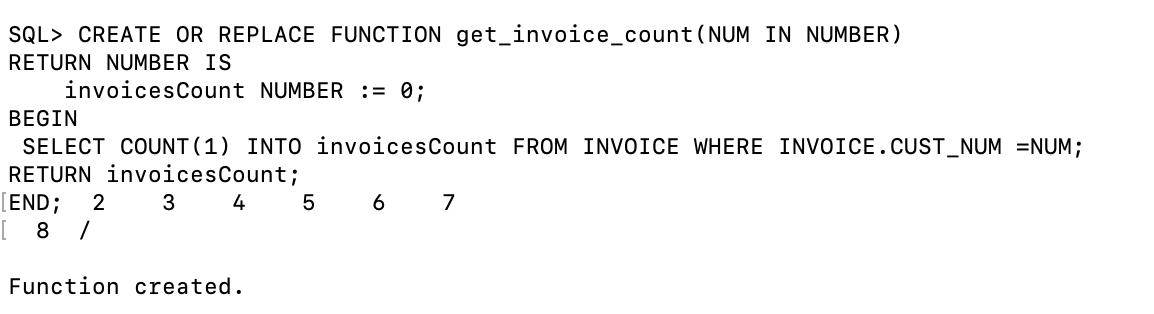
|  |
| --- |
| CREATE OR REPLACE PROCEDURE *PRC\_ADD\_CUSTOMER*(CUST\_NUM IN NUMBER,CUST\_LNAME IN VARCHAR,CUST\_FNAME IN VARCHAR,  CUST\_BALANCE IN NUMBER) AS BEGIN  INSERT INTO CUSTOMER VALUES (CUST\_NUM, CUST\_LNAME, CUST\_FNAME, CUST\_BALANCE); END; |





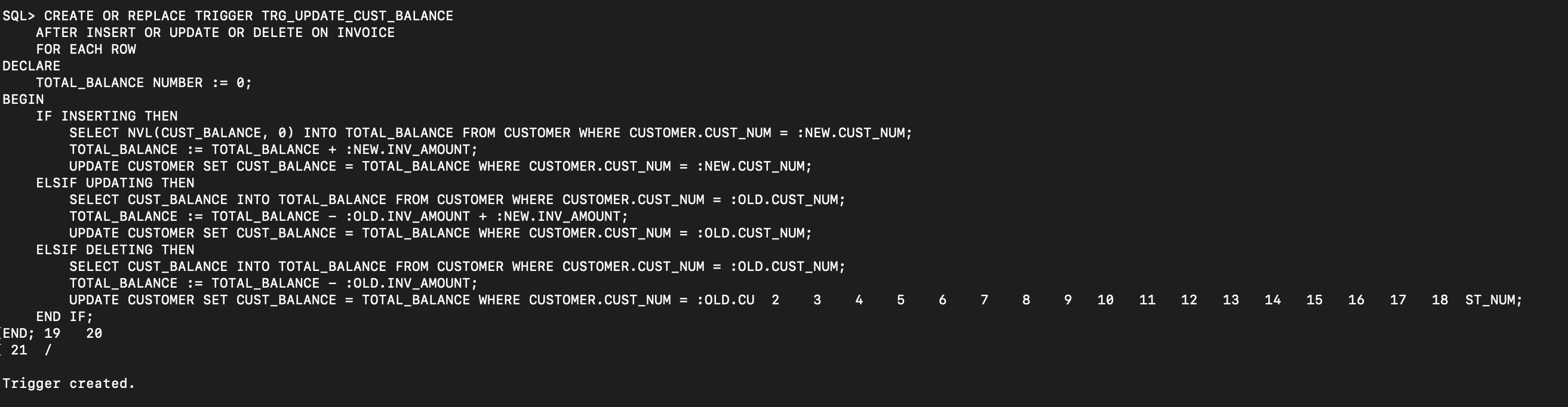
1. write a function name get\_invoice\_count to retrieve the number of invoices for a given customer.

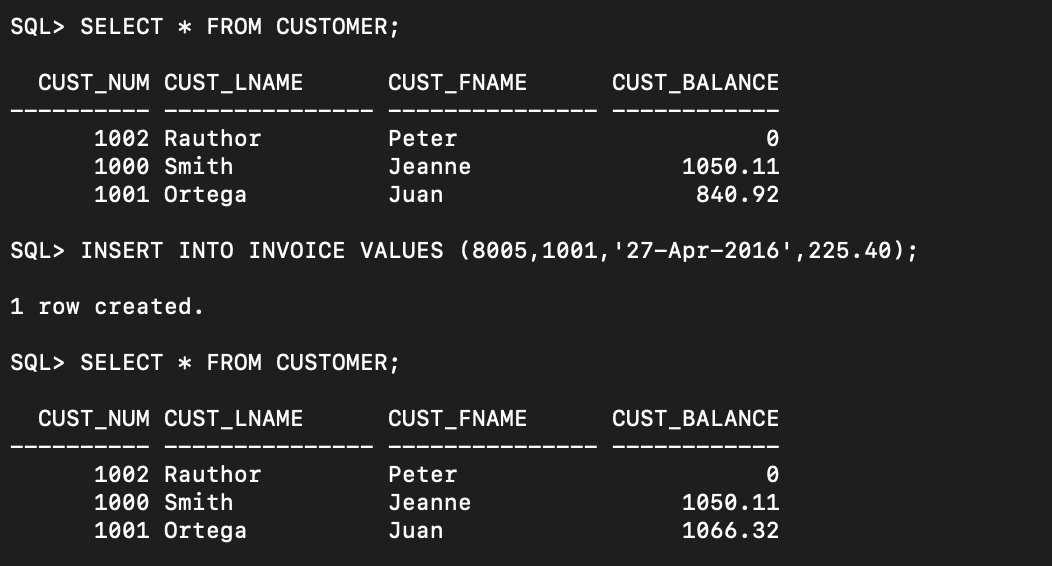
|  |
| --- |
| CREATE OR REPLACE FUNCTION *get\_invoice\_count*(NUM IN NUMBER) RETURN NUMBER IS  invoicesCount NUMBER := 0; BEGIN  SELECT *COUNT*(1) INTO invoicesCount FROM INVOICE WHERE INVOICE.CUST\_NUM =NUM; RETURN invoicesCount; END; |



1. write a trigger name TRG\_UPDATE\_CUST\_BALANCE to update the CUST\_BALANCE in the CUSTOMER table when a new invoice is added in the INVOICE table;

|  |
| --- |
| CREATE OR REPLACE TRIGGER TRG\_UPDATE\_CUST\_BALANCE  AFTER INSERT OR UPDATE OR DELETE ON INVOICE  FOR EACH ROW DECLARE  TOTAL\_BALANCE NUMBER := 0; BEGIN  IF INSERTING THEN  SELECT *NVL*(CUST\_BALANCE, 0) INTO TOTAL\_BALANCE FROM CUSTOMER WHERE CUSTOMER.CUST\_NUM = :NEW.CUST\_NUM;  TOTAL\_BALANCE := TOTAL\_BALANCE + :NEW.INV\_AMOUNT;  UPDATE CUSTOMER SET CUST\_BALANCE = TOTAL\_BALANCE WHERE CUSTOMER.CUST\_NUM = :NEW.CUST\_NUM;  ELSIF UPDATING THEN  SELECT CUST\_BALANCE INTO TOTAL\_BALANCE FROM CUSTOMER WHERE CUSTOMER.CUST\_NUM = :OLD.CUST\_NUM;  TOTAL\_BALANCE := TOTAL\_BALANCE - :OLD.INV\_AMOUNT + :NEW.INV\_AMOUNT;  UPDATE CUSTOMER SET CUST\_BALANCE = TOTAL\_BALANCE WHERE CUSTOMER.CUST\_NUM = :OLD.CUST\_NUM;  ELSIF DELETING THEN  SELECT CUST\_BALANCE INTO TOTAL\_BALANCE FROM CUSTOMER WHERE  CUSTOMER.CUST\_NUM = :OLD.CUST\_NUM;  TOTAL\_BALANCE := TOTAL\_BALANCE - :OLD.INV\_AMOUNT;  UPDATE CUSTOMER SET CUST\_BALANCE = TOTAL\_BALANCE WHERE CUSTOMER.CUST\_NUM = :OLD.CUST\_NUM;  END IF; END; |





1. write aprocedure named PRC\_ADD\_INVOICE to add a new invoice record to the INVOICE table.

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| --- |
| CREATE OR REPLACE PROCEDURE *PRC\_ADD\_INVOICE*(INV\_NUM IN NUMBER,CUST\_NUM IN NUMBER,INV\_DATE IN DATE,INV\_AMOUNT IN   NUMBER)  AS  BEGIN  INSERT INTO INVOICE VALUES (INV\_NUM, CUST\_NUM, INV\_DATE, INV\_AMOUNT); END; |

