Tasneem Hossain

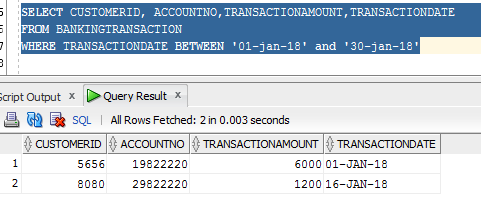
**Requirement #2 – Create 10 Business Reports using 10 SQL statements that a Business User would need to make BUSINESS DECISIONS (Reporting)**

1) The bank wants to know the transaction amount of a customer between 1st January 2018 to 30th January 2018, including the customer ID, account number and the date because the customer asked the bank to provide the information.

SELECT CUSTOMERID, ACCOUNTNO,TRANSACTIONAMOUNT,TRANSACTIONDATE

FROM BANKINGTRANSACTION

WHERE TRANSACTIONDATE BETWEEN '01-jan-18' and '30-jan-18';

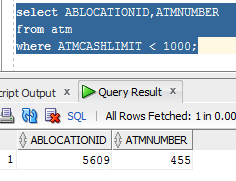


2) The bank wants to know which ATM has cash limit below 1000 because they want to change it to thousand dollars. So the query gives the atm number and the location id of those atm that has limit below 1000$.

SELECT ABLOCATIONID,ATMNUMBER

FROM ATM

WHERE ATMCASHLIMIT < 1000;

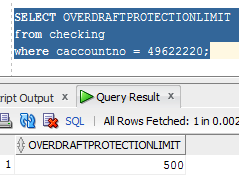


3) The bank wants to see the over draft protection limit for an account because the customer is asking to increase it. So first they need to check the over draft protection limit, which is done by this query.

SELECT OVERDRAFTPROTECTIONLIMIT

FROM CHECKING

WHERE CACCOUNTNO = 49622220;



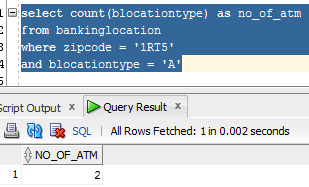
4) The bank wants to know how many atms are there in a zip code, because they are planning to install new ones for those areas that has less atms compared to other areas.

SELECT COUNT(BLOCATIONTYPE) AS NO\_OF\_ATM

FROM BANKINGLOCATION

WHERE ZIPCODE = '1RT5'

AND BLOCATIONTYPE = 'A'



5) The bank wants to know the estimated graduation date from 15-aug-19 to 31-Dec-19 for the students who took student loan so that the bank can verify with them, if the graduation date matches with the estimated date, then the bank will send them letters 6 month ahead of their graduation time so that they can fill up the necessary forms and formalities.

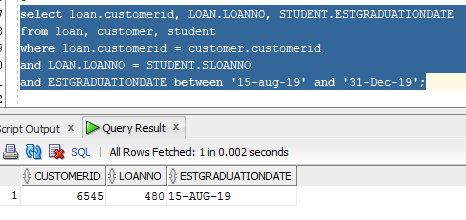
SELECT LOAN.CUSTOMERID, LOAN.LOANNO, STUDENT.ESTGRADUATIONDATE

FROM LOAN, CUSTOMER, STUDENT

WHERE LOAN. CUSTOMERID = CUSTOMER. CUSTOMERID

AND LOAN.LOANNO = STUDENT.SLOANNO

AND ESTGRADUATIONDATE between '15-aug-19' and '31-Dec-19';

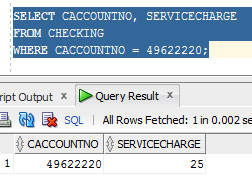


6) The bank wants to know the service charge imposed on an account because the customer is asking to waive it or lower it. Therefore this query shows the service charge for that account.

SELECT CACCOUNTNO, SERVICECHARGE

FROM CHECKING

WHERE CACCOUNTNO = 49622220;



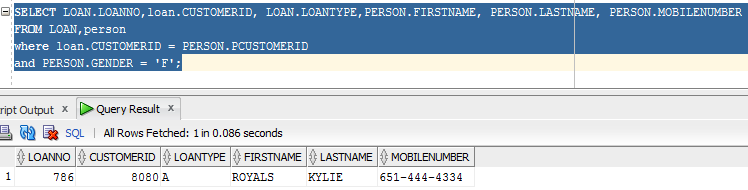
7) The bank wants to know the first name, last name and phone number of all the female customer, who took a loan because the bank want to send them text messages of women’s day.

SELECT LOAN.LOANNO, LOAN.CUSTOMERID, LOAN.LOANTYPE,PERSON.FIRSTNAME, PERSON.LASTNAME, PERSON.MOBILENUMBER

FROM LOAN, PERSON

WHERE LOAN.CUSTOMERID = PERSON.PCUSTOMERID

AND PERSON.GENDER = 'F';



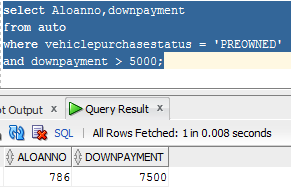
8) The bank would like to know the loan number of the loan of an auto loan where the customer had made down payment more than 5000$ and the vehicle is pre owned because the bank want to offer them low interest.

SELECT ALOANNO, DOWNPAYMENT

FROM AUTO

WHERE VEHICLEPURCHASESTATUS = 'PREOWNED'

AND DOWNPAYMENT > 5000;

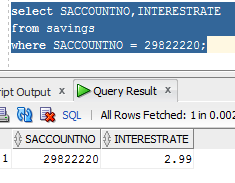


9) The bank wants to know the interest rate of a savings account because the customer is requesting to increase the interest rate.

SELECT SACCOUNTNO, INTERESTRATE

FROM SAVINGS

WHERE SACCOUNTNO = 29822220;

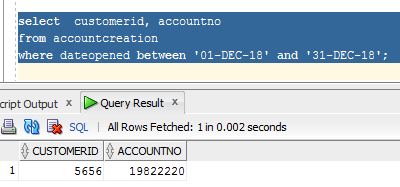


10) The bank wants to know which accounts were opened during the month of December because the bank wants to waive their service fee for the month of December as per the promotion that stated that opening account during the month of December will get waived service fees for this month.

SELECT CUSTOMER ID, ACCOUNTNO

FROM ACCOUNTCREATION

WHERE DATEOPENED between '01-DEC-18' and '31-DEC-18'



**Requirement #3 – Create/DESIGN STORED PROCEDURES for the 10 BUSINESS REPORT QUERIES from Requirement #2.**

1) The bank wants to know the transaction amount of a customer between 1st January 2018 to 28th January 2018, including the customer ID, account number and the date because the customer wants to know their the transaction amount. So the stored procedure takes the transaction date from and transaction date to and shows the transaction amount and account number.

CREATE PROCEDURE usptrndate (inp\_transactiondateto in date,inp\_transactiondatefrom in date) as

cursor trndate\_cursor is

select CUSTOMERID, Accountno,transactionamount,transactiondate

from bankingtransaction

where transactiondate between inp\_transactiondateto and inp\_transactiondatefrom;

v\_CUSTOMERID number;

v\_Accountno number;

v\_transactionamount number;

v\_transactiondate date;

Begin

open trndate\_cursor;

Loop

fetch trndate\_cursor into v\_CUSTOMERID,v\_Accountno,v\_transactionamount,v\_transactiondate;

Exit when trndate\_cursor%NOTFOUND;

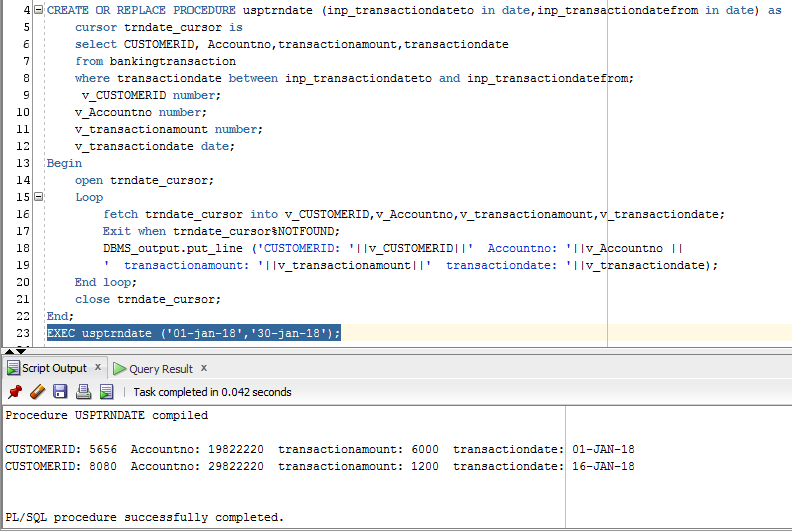
DBMS\_output.put\_line ('CUSTOMERID: '||v\_CUSTOMERID||' Accountno: '||v\_Accountno ||

' transactionamount: '||v\_transactionamount||' transactiondate: '||v\_transactiondate);

End loop;

close trndate\_cursor;

End;

EXEC usptrndate ('01-jan-18','30-jan-18');

2) The bank wants to know which ATM has cash limit below 1000 because they want to change it to thousand dollars. So the stored procedure gives the atm number and the location id of those atm that has limit below 1000$. Therefore the stored procedures takes the input parameter of atm cash limit.

CREATE or replace PROCEDURE uspatmlimit (inp\_ATMCASHLIMIT in number)

as

cursor cur\_cursor is

select ABLOCATIONID,ATMNUMBER

from atm

where ATMCASHLIMIT < inp\_ATMCASHLIMIT;

v\_ablocationid number;

v\_ATM\_NUM number;

Begin

open cur\_cursor;

Loop

fetch cur\_cursor into v\_ablocationid,v\_ATM\_NUM;

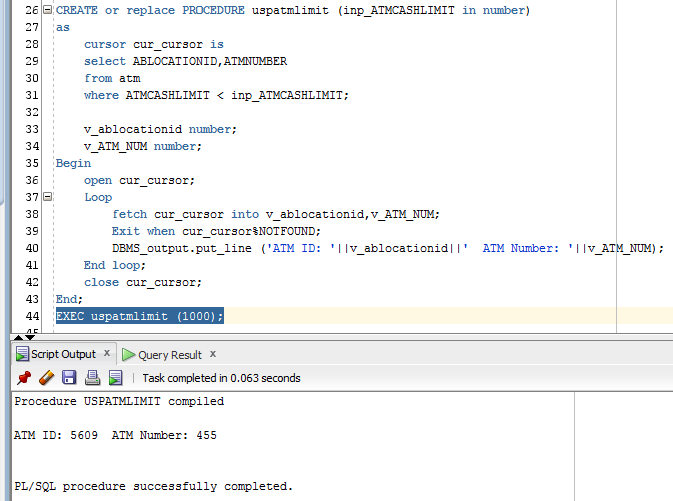
Exit when cur\_cursor%NOTFOUND;

DBMS\_output.put\_line ('ATM ID: '||v\_ablocationid||' ATM Number: '||v\_ATM\_NUM);

End loop;

close cur\_cursor;

End;

EXEC uspatmlimit (1000);

3) The bank wants to see the over draft protection limit for an account because the customer is asking to increase it. So first they need to check the over draft protection limit, which is done by this stored procedures where they just put the account number and the stored procedures shows the overdraft protection limit.

Create or replace Procedure uspgetmob (inp\_CACCOUNTNO in number)

as

cursor getmob\_cursor is

select OVERDRAFTPROTECTIONLIMIT

from checking

where CACCOUNTNO =inp\_CACCOUNTNO;

v\_OVERDRAFTPROTECTIONLIMITE NUMBER;

begin

open getmob\_cursor;

loop

fetch getmob\_cursor into v\_OVERDRAFTPROTECTIONLIMITE;

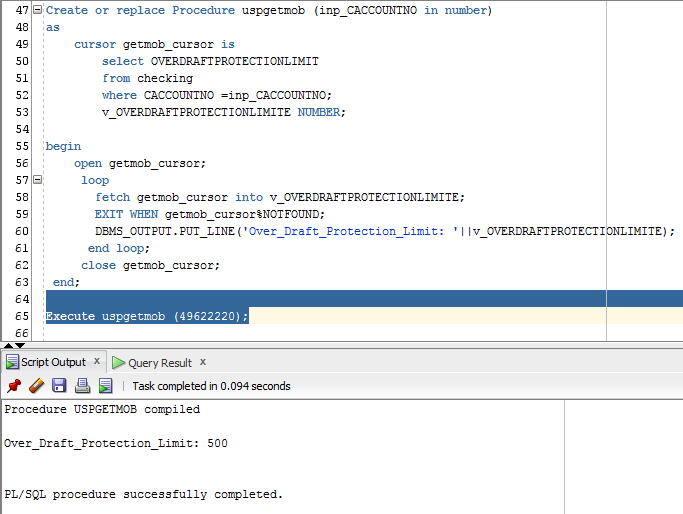
EXIT WHEN getmob\_cursor%NOTFOUND;

DBMS\_OUTPUT.PUT\_LINE('Over\_Draft\_Protection\_Limit: '||v\_OVERDRAFTPROTECTIONLIMITE);

end loop;

close getmob\_cursor;

end;

Execute uspgetmob (49622220);

4) The bank wants to know how many atms are there in a zip code, because they are planning to install new ones for those areas that has less atms compared to other areas. So the stored procedures takes the input parameter of zip code and bank location type and shows the number of atm in that area.

CREATE or replace PROCEDURE uspcntatm (inp\_zipcode in varchar2, inp\_BLOCATIONTYPE in char)

as

cursor cntatm\_cursor is

select count(blocationtype)

from bankinglocation

where zipcode = inp\_zipcode

and blocationtype = inp\_BLOCATIONTYPE;

v\_blocationtype char;

Begin

open cntatm\_cursor;

Loop

fetch cntatm\_cursor into v\_blocationtype;

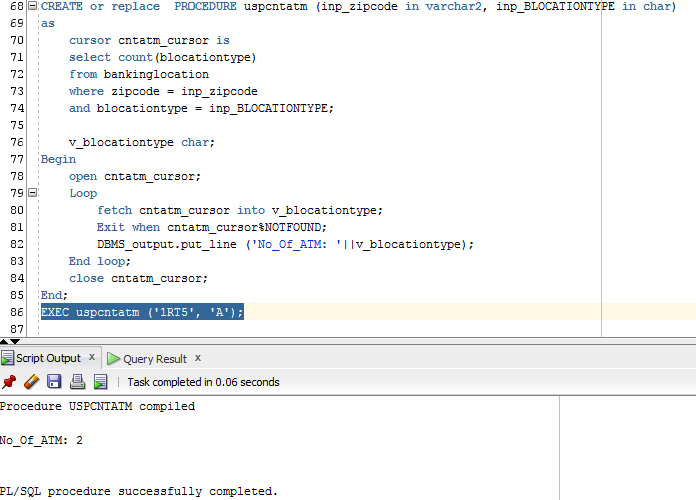
Exit when cntatm\_cursor%NOTFOUND;

DBMS\_output.put\_line ('No\_Of\_ATM: '||v\_blocationtype);

End loop;

close cntatm\_cursor;

End;

EXEC uspcntatm ('1RT5', 'A');

5) The bank wants to know the estimated graduation date from 15-aug-19 to 31-Dec-19 for the students who took student loan so that the bank can verify with them, if the graduation date matches with the estimated date, then the bank will send them letters 6 month ahead of their graduation time so that they can fill up the necessary forms and formalities. Therefore the stored procedures takes two dates which shows the range of graduation date.

CREATE or replace PROCEDURE uspestgradate (inp\_estdateto in DATE,inp\_estdatefrom in DATE) as

cursor estgradate\_cursor is

select loan.customerid, LOAN.LOANNO, STUDENT.ESTGRADUATIONDATE

from loan, customer,STUDENT

where loan.customerid = customer.customerid

and LOAN.LOANNO = STUDENT.SLOANNO

and STUDENT.ESTGRADUATIONDATE between inp\_estdateto and inp\_estdatefrom;

v\_CUSTOMERID loan.customerID%type;

v\_LOANNO LOAN.LOANNO%type;

v\_ESTGrad STUDENT.ESTGRADUATIONDATE%type;

Begin

open estgradate\_cursor;

Loop

fetch estgradate\_cursor into v\_CUSTOMERID,v\_LOANNO, v\_ESTGrad;

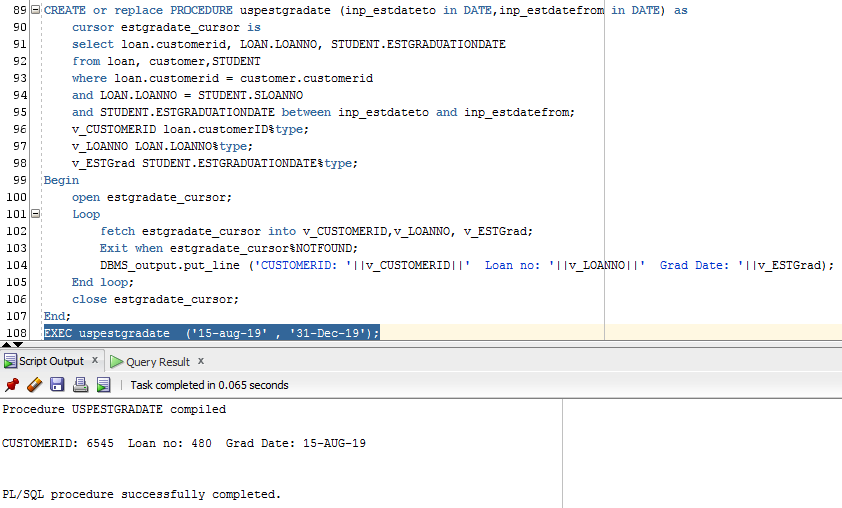
Exit when estgradate\_cursor%NOTFOUND;

DBMS\_output.put\_line ('CUSTOMERID: '||v\_CUSTOMERID||' Loan no: '||v\_LOANNO||' Grad Date: '||v\_ESTGrad);

End loop;

close estgradate\_cursor;

End;

EXEC uspestgradate ('15-aug-19' , '31-Dec-19');

6) The bank wants to know the service charge imposed on an account because the customer is asking to waive it or lower it. Therefore this stored procedure takes the account number and shows the service charge for that account.

CREATE OR REPLACE PROCEDURE uspsercharge (inp\_CACCOUNTNO in number)

as

cursor sercharge\_cursor is

SELECT CACCOUNTNO, SERVICECHARGE

FROM CHECKING

WHERE CACCOUNTNO = inp\_CACCOUNTNO;

v\_CACCOUNTNO NUMBER;

v\_SERVICECHARGE NUMBER;

Begin

open sercharge\_cursor;

Loop

fetch sercharge\_cursor into v\_CACCOUNTNO,v\_SERVICECHARGE;

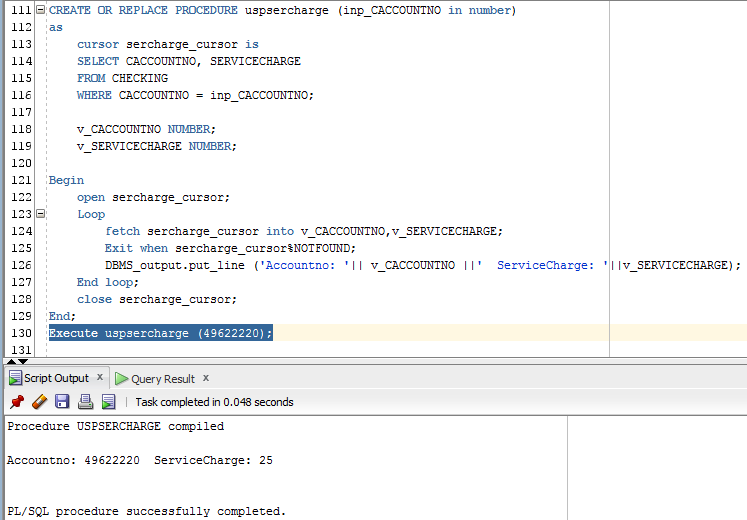
Exit when sercharge\_cursor%NOTFOUND;

DBMS\_output.put\_line ('Accountno: '|| v\_CACCOUNTNO ||' ServiceCharge: '||v\_SERVICECHARGE);

End loop;

close sercharge\_cursor;

End;

Execute uspsercharge (49622220);

7) The bank wants to know the first name, last name and phone number of all the female customer, who took a loan because the bank want to send them text messages of women’s day.So the stored procedure takes the gender and shows the above mentioned columns.

CREATE OR REPLACE PROCEDURE uspgenln (inp\_GENDER in PERSON.GENDER%type) as

cursor genln\_cursor is

SELECT LOAN.LOANNO,loan.CUSTOMERID, LOAN.LOANTYPE,PERSON.FIRSTNAME, PERSON.LASTNAME, PERSON.MOBILENUMBER

FROM LOAN,person

where loan.CUSTOMERID = PERSON.PCUSTOMERID

and PERSON.GENDER = inp\_GENDER;

v\_LOANNO LOAN.LOANNO%type;

v\_CUSTOMERID loan.CUSTOMERID%type;

v\_LOANTYPE LOAN.LOANTYPE%type;

v\_FIRSTNAME PERSON.FIRSTNAME%type;

v\_LASTNAME PERSON.LASTNAME%type;

v\_MOBILENUMBER PERSON.MOBILENUMBER%type;

Begin

open genln\_cursor;

Loop

fetch genln\_cursor into v\_LOANNO,v\_CUSTOMERID,v\_LOANTYPE,v\_FIRSTNAME,v\_LASTNAME,v\_MOBILENUMBER;

Exit when genln\_cursor%NOTFOUND;

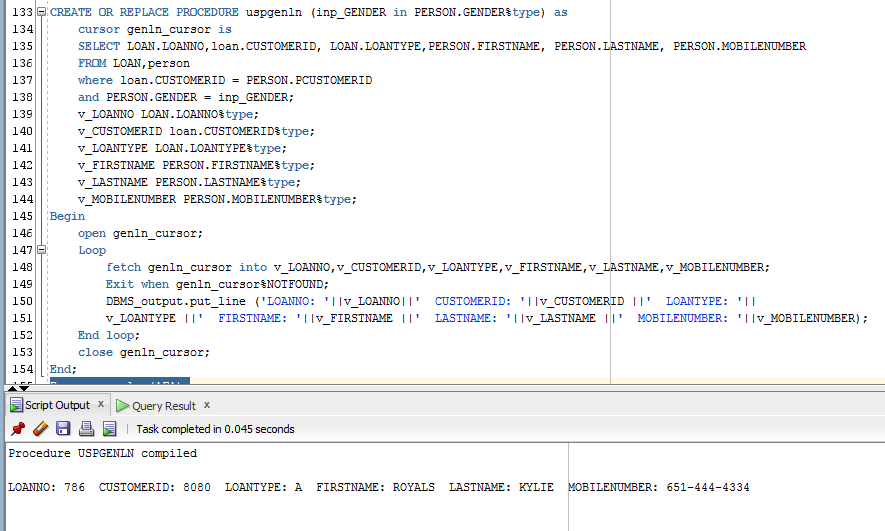
DBMS\_output.put\_line ('LOANNO: '||v\_LOANNO||' CUSTOMERID: '||v\_CUSTOMERID ||' LOANTYPE: '||

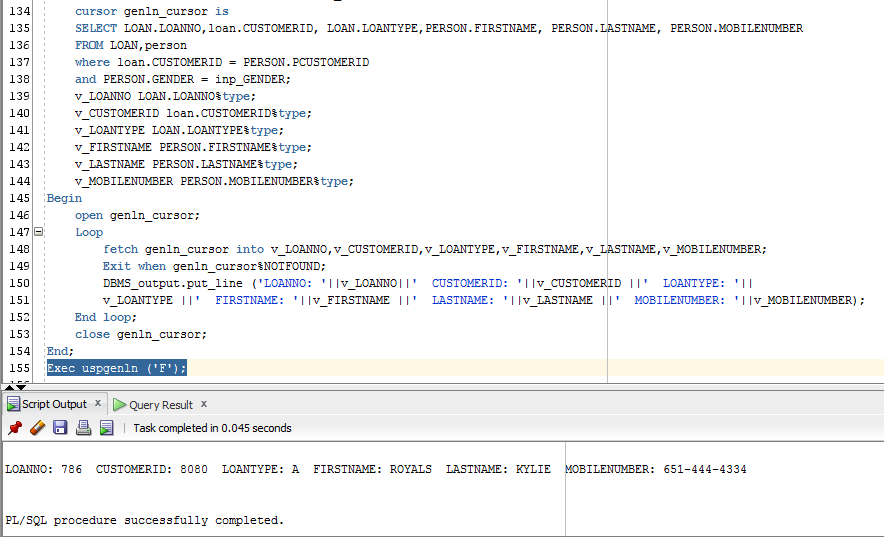
v\_LOANTYPE ||' FIRSTNAME: '||v\_FIRSTNAME ||' LASTNAME: '||v\_LASTNAME ||' MOBILENUMBER: '||v\_MOBILENUMBER);

End loop;

close genln\_cursor;

End;

Exec uspgenln ('F');



8) The bank would like to know the loan number of the loan of an auto loan where the customer had made down payment more than 5000$ and the vehicle is pre owned because the bank want to offer them low interest rates. So this stored procedure takes the vehicle purchase status and down payment amount and shows the above mentioned columns.

Create or replace procedure uspdwnpymt (inp\_vehiclepurchasestatus in auto.vehiclepurchasestatus%type,inp\_downpayment in auto.downpayment%type)

as

cursor dwnpymt\_cursor is

select Aloanno, downpayment

from auto

where vehiclepurchasestatus = inp\_vehiclepurchasestatus

and downpayment > inp\_downpayment;

v\_Aloanno auto.Aloanno%type;

v\_downpayment auto.downpayment%type;

begin

open dwnpymt\_cursor;

loop

fetch dwnpymt\_cursor into v\_Aloanno,v\_downpayment;

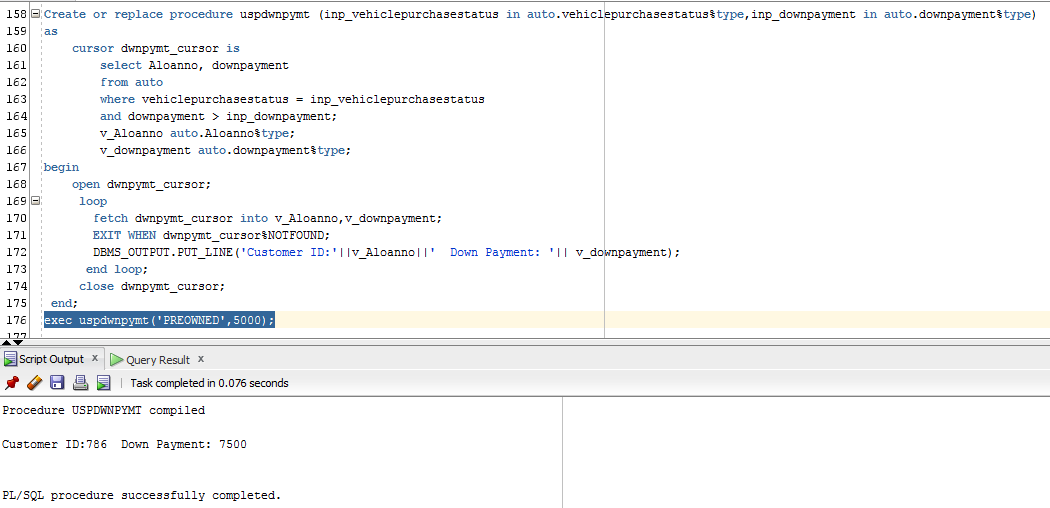
EXIT WHEN dwnpymt\_cursor%NOTFOUND;

DBMS\_OUTPUT.PUT\_LINE('Customer ID:'||v\_Aloanno||' Down Payment: '|| v\_downpayment);

end loop;

close dwnpymt\_cursor;

end;

exec uspdwnpymt('PREOWNED',5000);

9) The bank wants to know the interest rate of a savings account because the customer is requesting to increase the interest rate. So this stored procedure takes the account number and shows the interest rate of the account.

CREATE OR REPLACE PROCEDURE uspsav\_inrstrt (inp\_SACCOUNTNO in number)

as

cursor sav\_inrstrt\_cursor is

select SACCOUNTNO,INTERESTRATE

from savings

where SACCOUNTNO = inp\_SACCOUNTNO;

v\_SACCOUNTNO number;

v\_INTERESTRATE number;

Begin

open sav\_inrstrt\_cursor;

Loop

fetch sav\_inrstrt\_cursor into v\_SACCOUNTNO,v\_INTERESTRATE;

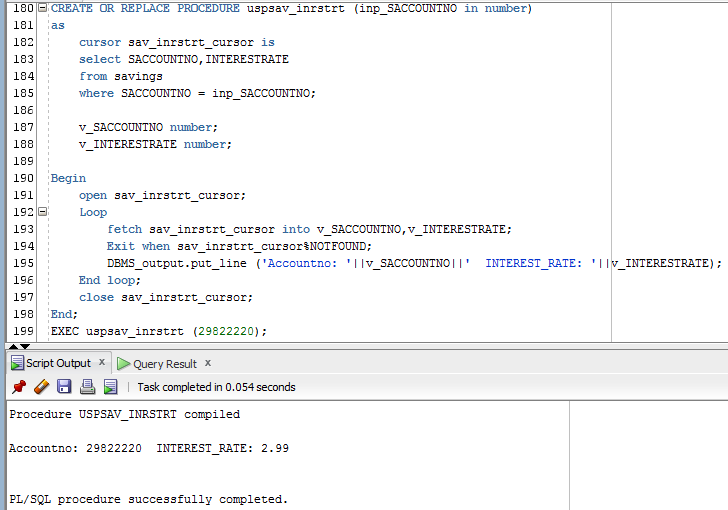
Exit when sav\_inrstrt\_cursor%NOTFOUND;

DBMS\_output.put\_line ('Accountno: '||v\_SACCOUNTNO||' INTEREST\_RATE: '||v\_INTERESTRATE);

End loop;

close sav\_inrstrt\_cursor;

End;

EXEC uspsav\_inrstrt (29822220);

10) The bank wants to know which accounts were opened during the month of December because the bank wants to waive their service fee for the month of December as per the promotion that stated that opening account during the month of December, will get the service fee waived for this month. So the stored procedure takes the dates and provides the customer id and account number.

CREATE OR REPLACE PROCEDURE uspcraccdt (inp\_accountcreatedateto in date,inp\_accountcreatedatefrom in date)

as

cursor craccdt\_cursor is

select customerid, accountno

from accountcreation

where dateopened between inp\_accountcreatedateto and inp\_accountcreatedatefrom;

v\_CUSTOMERID number;

v\_Accountno number;

Begin

open craccdt\_cursor;

Loop

fetch craccdt\_cursor into v\_CUSTOMERID,v\_Accountno;

Exit when craccdt\_cursor%NOTFOUND;

DBMS\_output.put\_line ('CUSTOMERID: '||v\_CUSTOMERID||' Accountno: '||v\_Accountno);

End loop;

close craccdt\_cursor;

End;

EXEC uspcraccdt('01-DEC-18','31-DEC-18');