Lab Assignment 2

1. **Write and implement PL/SL code to display customer name and address of a given customer from customer table. If the customer ID is not present in the table, it should throw an exception (‘no such customer’).**

```
create table customer_details(cid int Primary Key ,cname varchar(20), address varchar(30));
insert into customer_details values (107,'Anisha',’Buena Vista);
select * from customer_details;
```

Results Explain Describe Saved SQL History

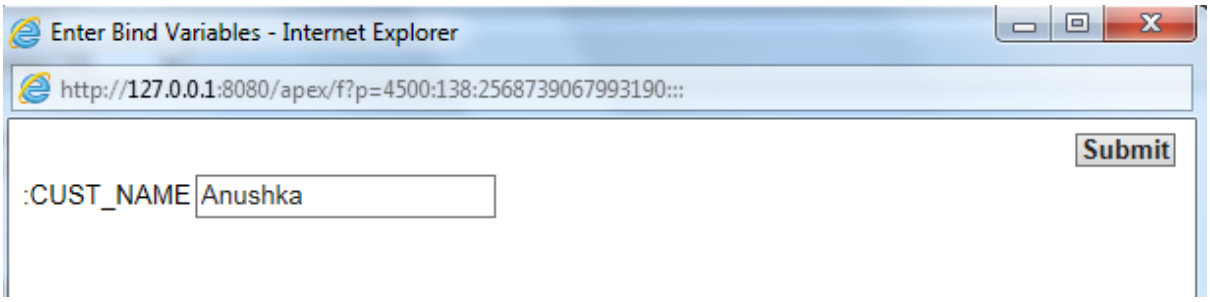
CID	CNAME	ADDRESS
107	Anisha	Buena Vista

1 rows returned in 0.01 seconds CSV Export

```
Declare
        cuname char(20);
        addr char(30);
   idd number;

Begin
cuname:=:cust_name;


        Select cname, address, cid into cuname, addr, idd from customer_details where cname
=cuname ;
        DBMS_OUTPUT.PUT_LINE(cuname ||' ' || addr ||' ' ||idd );
Exception
        When No_DATA_FOUND THEN
        DBMS_OUTPUT.PUT_LINE(' No such customer  '||  cuname);
End;
```



```
Declare
        name char(20);
        add char(30);
idd number;

Begin
name:=:cust_name;


        Select customer_name, address,id into  name, add,idd from customer_details where
customer_name =name ;
        DBMS_OUTPUT.PUT_LINE(name ||' ' || add ||' ' ||idd );
Exception
        When No_DATA_FOUND THEN
        DBMS_OUTPUT.PUT_LINE(' No such customer  '||  name);
End;
```

Results Explain Describe Saved SQL History

```
No such customer  Anushka

Statement processed.

0.00 seconds
```

2. **Write and implement PL/SQL code to display customer name and address of a given customer from customer table. When customer ID is less than or equal to zero, it should throw user defined exception ('ID must be greater than 0').**

:CUST_NAME Sagar Submit

CUSTOMER_NAME	ADDRESS	ID
John	19/781 Indira Nagar	1000
Rahul	17/759 Vikas Nagar	1001
Shiv	1/45 Vineet Nagar	2000
Sagar	1/45 Gomti Nagar	-4579

4 rows returned in 0.53 seconds Download

```
DECLARE
cuname VARCHAR2(20);
caddress VARCHAR2(30);
```

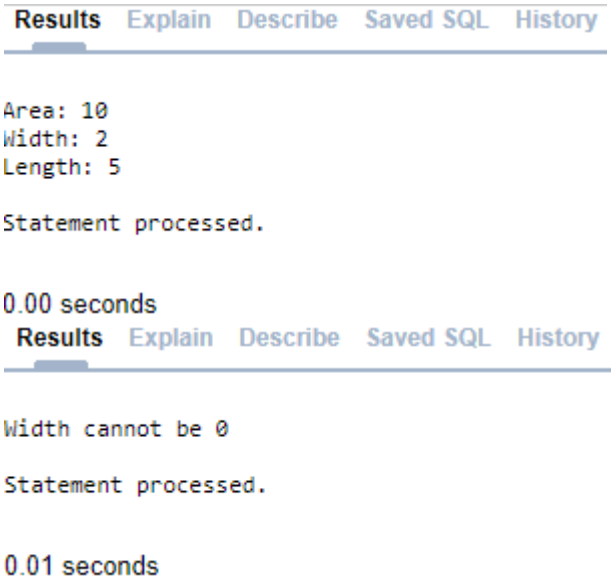
```
cuid NUMBER;
   ID_LESS_THAN_ZERO EXCEPTION;
BEGIN
cuid := :Customer_ID;
   IF cuid<= 0 THEN
      RAISE ID_LESS_THAN_ZERO;
   ELSE
      SELECT cname, address INTO cuname, caddress FROM customer_details WHERE cid=cuid;
      DBMS_OUTPUT.PUT_LINE('Name: ' || cuname);
      DBMS_OUTPUT.PUT_LINE('Address: ' || caddress);
   END IF;
EXCEPTION
   WHEN NO_DATA_FOUND THEN
      DBMS_OUTPUT.PUT_LINE('No such customer');
   WHEN ID_LESS_THAN_ZERO THEN
      DBMS_OUTPUT.PUT_LINE('ID must be greater than 0');
END;
```

```
Id must be greater than 0

Statement processed.
```

3. **Write and implement PL/SQL code to find length when area and width of a rectangle is given. If width is zero, it should throw an exception (zero_divide).**

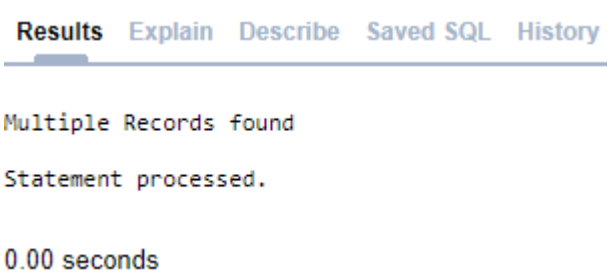
```
DECLARE
   length NUMBER;
   width NUMBER;
   area NUMBER;
BEGIN
area := :Area;
width := :Width;
length := area / width;
   DBMS_OUTPUT.PUT_LINE('Area: ' || area);
   DBMS_OUTPUT.PUT_LINE('Width: ' || width);
   DBMS_OUTPUT.PUT_LINE('Length: ' || length);
EXCEPTION
   WHEN ZERO_DIVIDE THEN
      DBMS_OUTPUT.PUT_LINE('Width cannot be 0');
END;
```



4. **Write and implement PL/SQL code to display first name and last name of student whose marks are greater than 100. When multiple records are selected, it should throw an exception (TOO_MANY_ROWS).**

```
CREATE TABLE student (ID NUMBER PRIMARY KEY, firstname VARCHAR2(15),
lastname VARCHAR2(15), marks NUMBER);

INSERT INTO student VALUES (1, 'Anisha', 'Alluru', 92);
INSERT INTO student VALUES (2, 'Anushka', 'Singh', 100);
INSERT INTO student VALUES (3, 'Aditya', 'Lohia', 110);
INSERT INTO student VALUES (4, 'Dhruv', 'Patel', 95);
INSERT INTO student VALUES (5, 'Hrithik', 'Roshan', 102);
        DECLARE
        fname VARCHAR2(15);
        lname VARCHAR2(15);
        BEGIN
           SELECT firstname, lastname INTO fname, lname FROM student WHERE marks
        > 100;
           DBMS_OUTPUT.PUT_LINE('First Name: ' || fname);
           DBMS_OUTPUT.PUT_LINE('Last Name: ' || lname);
        EXCEPTION
           WHEN TOO_MANY_ROWS THEN
              DBMS_OUTPUT.PUT_LINE('Multiple Records found');
END;
```

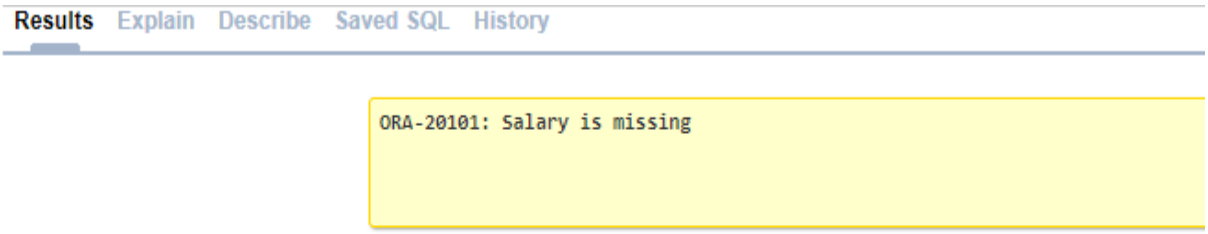


5. **Write and implement PL/SQL code to raise the salary of a given employee (empid) by 10%. If no data found it should throw exception (NO_Data_Found). If the salary is null, it will raise_application_error(-20101, 'Salary is missing').**

```
CREATE TABLE employee (ID NUMBER PRIMARY KEY, name VARCHAR2(20),
salary NUMBER);

INSERT INTO employee VALUES (1, 'Raman Bhalla', 50000);
INSERT INTO employee VALUES (2, 'Ishita Bhalla', NULL);
INSERT INTO employee VALUES (3, 'Ruhi Bhalla', 30000);
```

```
DECLARE
newSalary NUMBER;
oldSalary NUMBER;
empID NUMBER;
BEGIN
empID := :EmployeeID;
   SELECT salary INTO oldSalary FROM employee WHERE id=empID;
   IF oldSalary IS NULL THEN
      RAISE_APPLICATION_ERROR(-20101, 'Salary is missing');
   ELSE
newSalary := oldSalary * 1.10;
      DBMS_OUTPUT.PUT_LINE('Old Salary: ' || oldSalary);
      DBMS_OUTPUT.PUT_LINE('New Salary: ' || newSalary);
   END IF;
EXCEPTION
   WHEN NO_DATA_FOUND THEN
      DBMS_OUTPUT.PUT_LINE('No data found');
END;
```



0.00 seconds

Results Explain Describe Saved SQL History

```
Old Salary: 29000
New Salary: 31900

Statement processed.
```

0.00 seconds