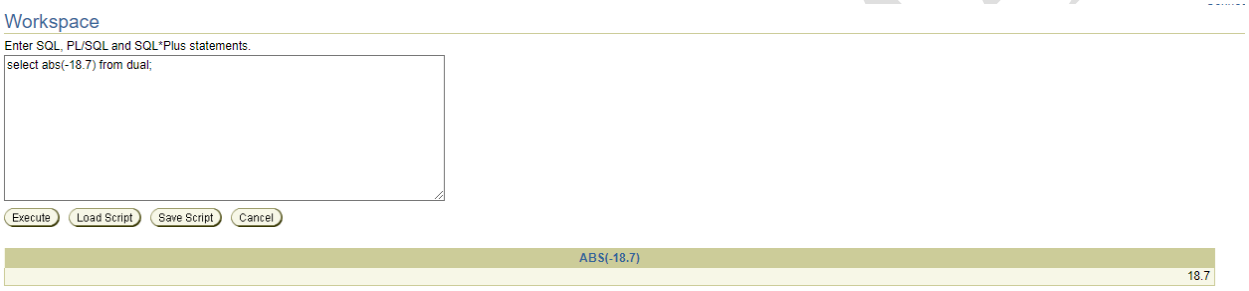
Assignment 6

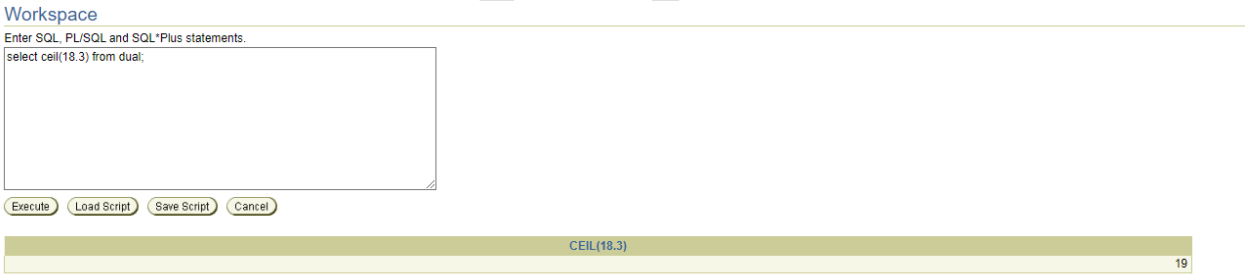
1. Give Syntax and Queries to demonstrate the use of following Numeric functions in System Defined Table

   a. Absolute
   b. Ceil
   c. Floor
   d. Round
   e. Mod
   f. Power
   g. Tan
   h. Cos
   i. Sin
   j. Log
   k. Trunc
   l. Greatest
   m. Least
   n. sqrt

select abs(-18.7) from dual;

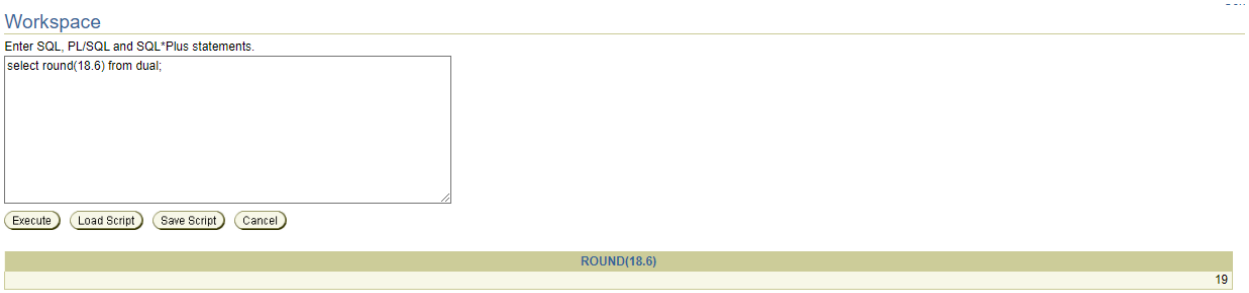


select ceil(18.3) from dual;

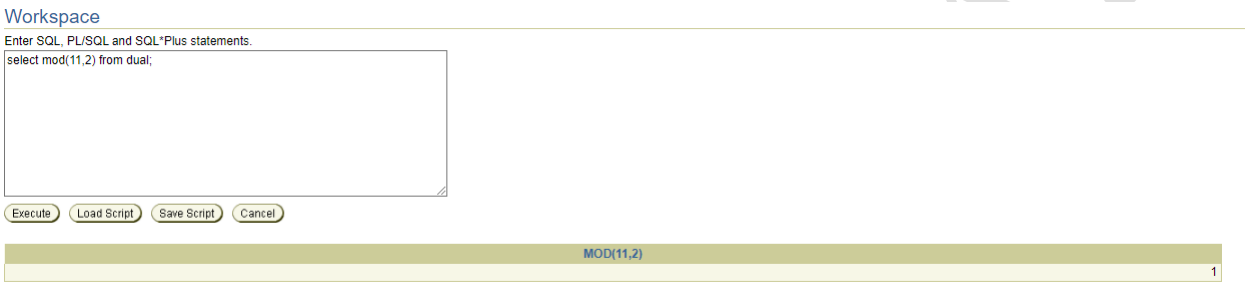


select floor(18.1) from dual;

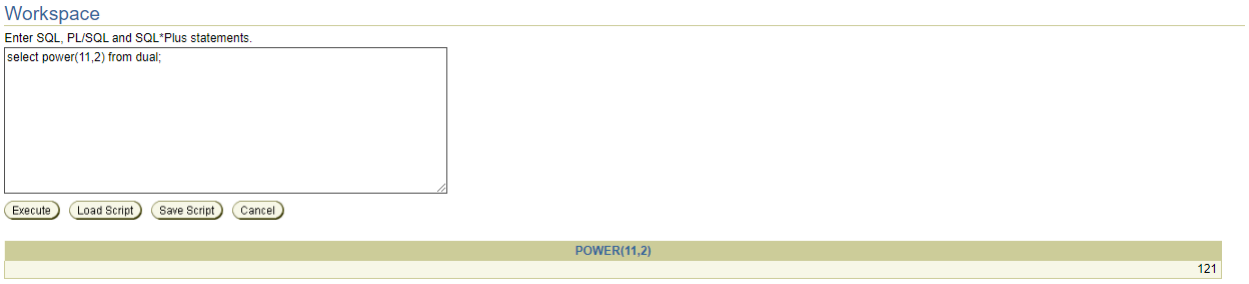
select round(18.6) from dual;



select mod(11,2) from dual;

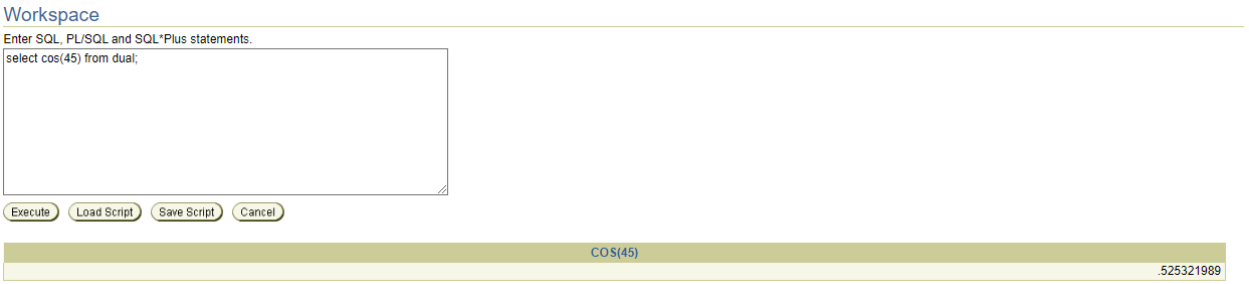


select power(11,2) from dual;

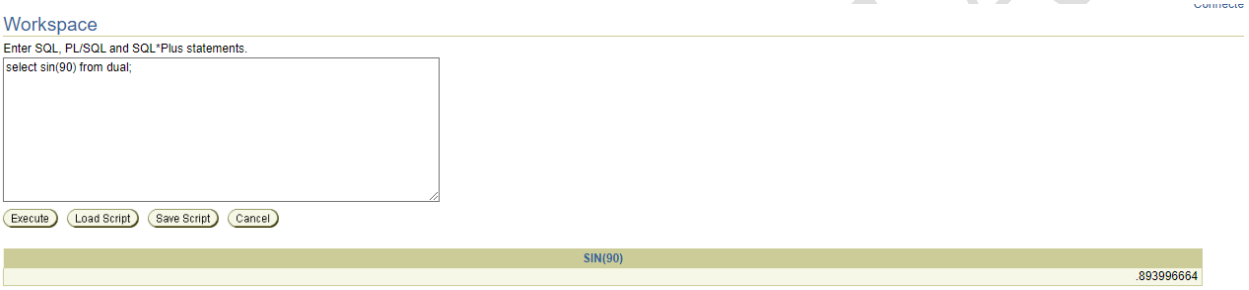


select tan(60) from dual;

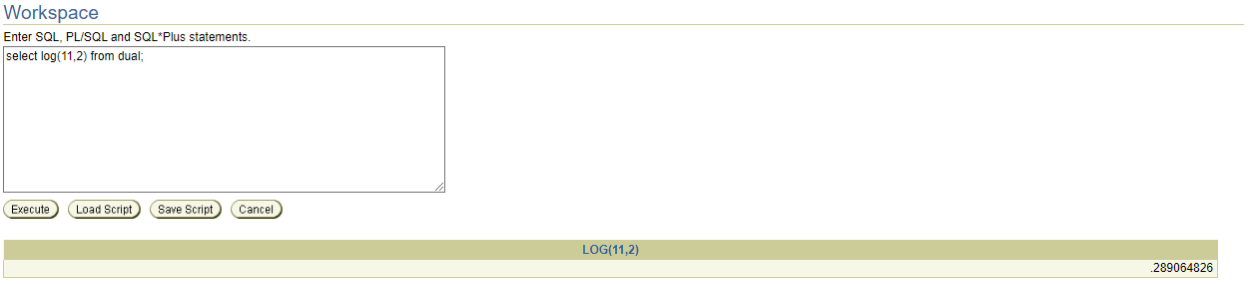
select cos(45) from dual;



select sin(90) from dual;

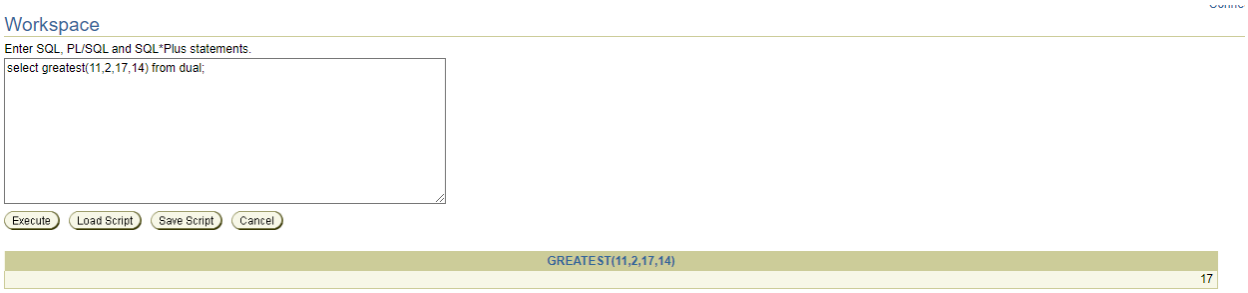


select log(11,2) from dual;



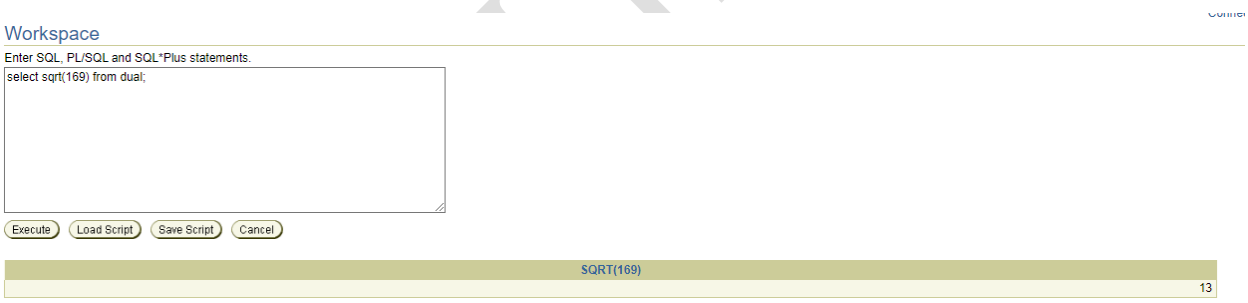
select trunc(11.98765,2) from dual;

select greatest(11,2,17,14) from dual;



select least(11,2,17,14) from dual;

select sqrt(169) from dual;

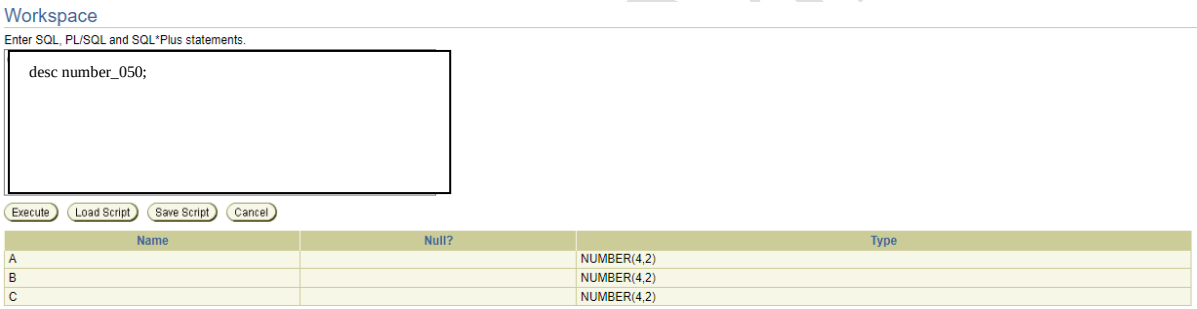


2. Create the following table and perform the below mentioned Queries

A	B	C
-12.5	2	3
-13.5	4	5
0.5	6	7
1.0	8	9
2.0	10	11

create table number_050(A number(4,2),B number(4,2),C number(4,2));

desc number_050;



insert into number_050 values(-12.5,2,3);

insert into number_050 values(-13.5,4,5);

insert into number_050 values(0.5,6,7);

insert into number_050 values(1.0,8,9);

insert into number_050 values(2.0,10,11)

select * from number_050;

Workspace

Enter SQL, PL/SQL and SQL*Plus statements.

```
select * from number_050;
```

Execute | Load Script | Save Script | Cancel

A	B	C
-12.5	2	3
-13.5	4	5
.5	6	7
1	8	9
2	10	11

a. Find the absolute value of Column A and name it as “Absolute A”

```
select abs(A) as "Absolute A" from number_050;
```

Workspace

Enter SQL, PL/SQL and SQL*Plus statements.

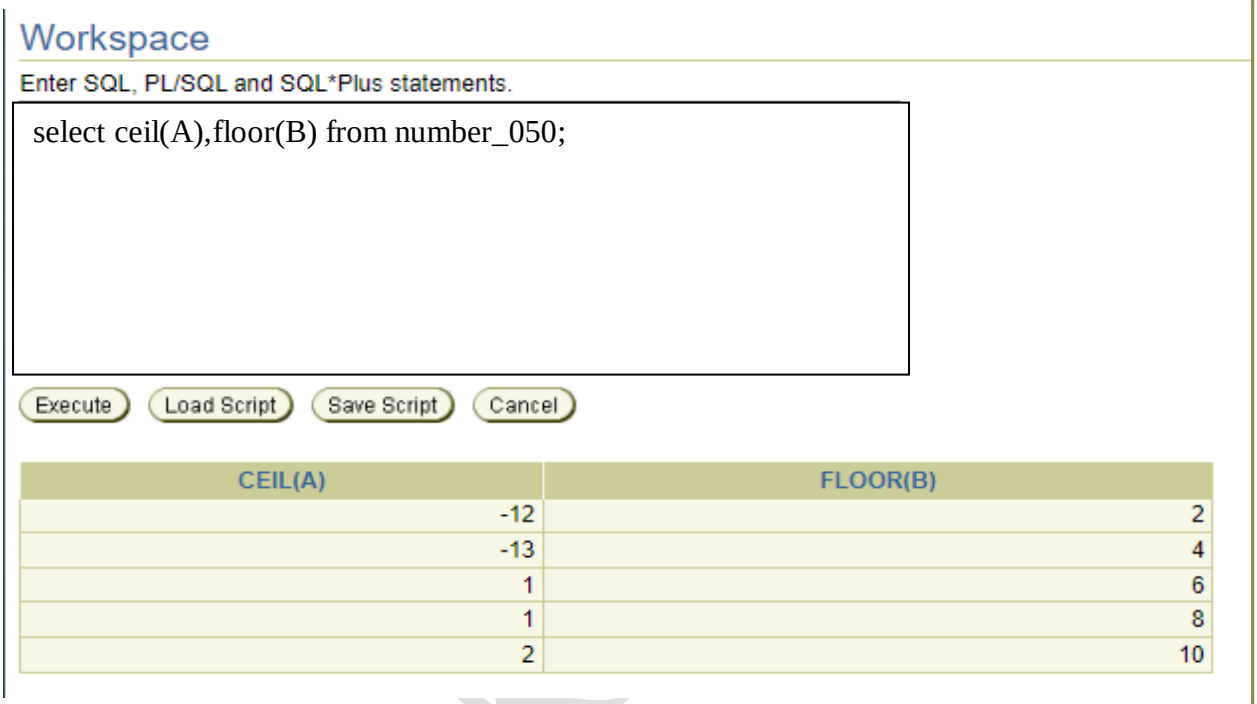
```
select abs(A) as "Absolute A" from number_050;
```

Execute | Load Script | Save Script | Cancel

Absolute A
12.5
13.5
.5
1
2

b. Find the upper and lower values of Column A and column B respectively.

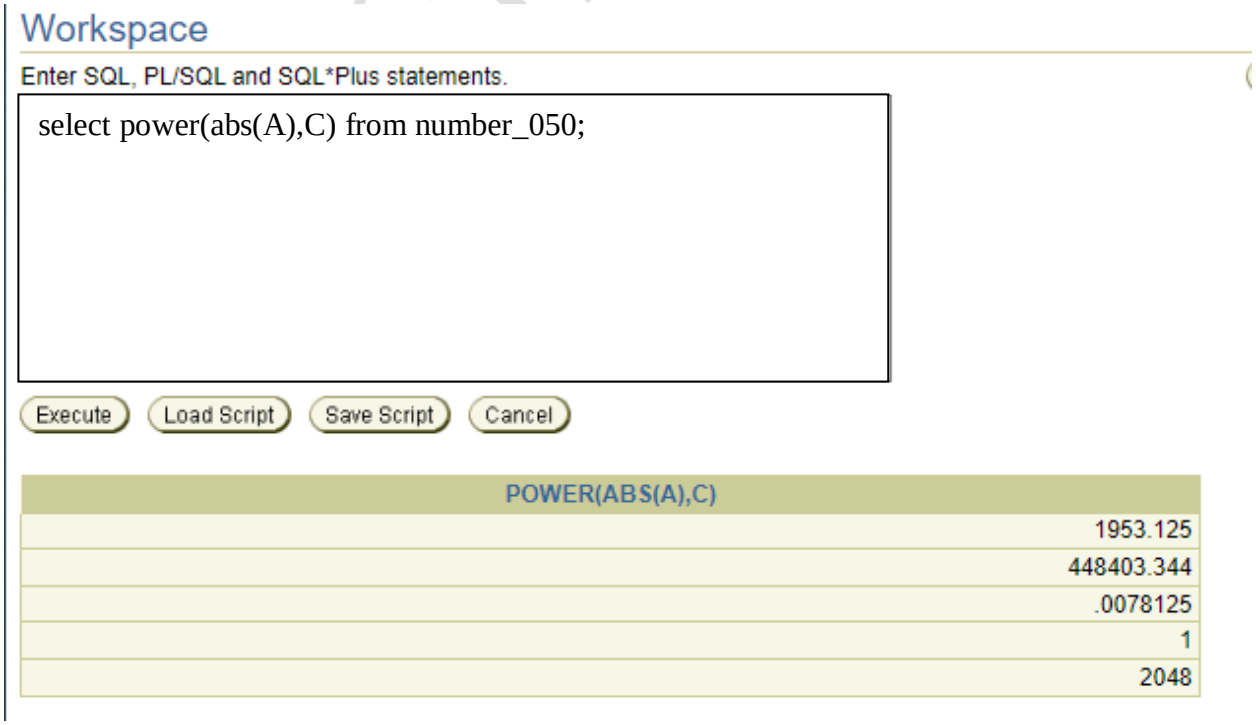
select ceil(A),floor(B) from number_050;



CEIL(A)	FLOOR(B)
-12	2
-13	4
1	6
1	8
2	10

c. Find the Power value using Absolute A as base and column C as its power.

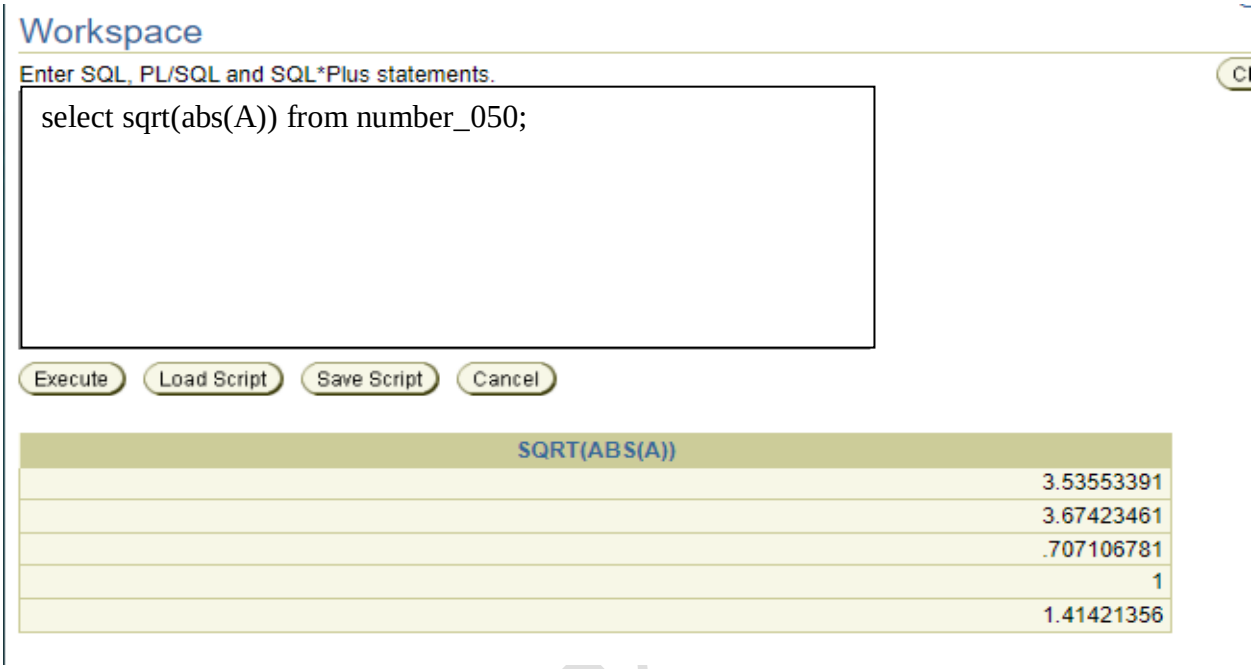
select power(abs(A),C) from number_050;



POWER(ABS(A),C)
1953.125
448403.344
.0078125
1
2048

d. Find the square root of Column A

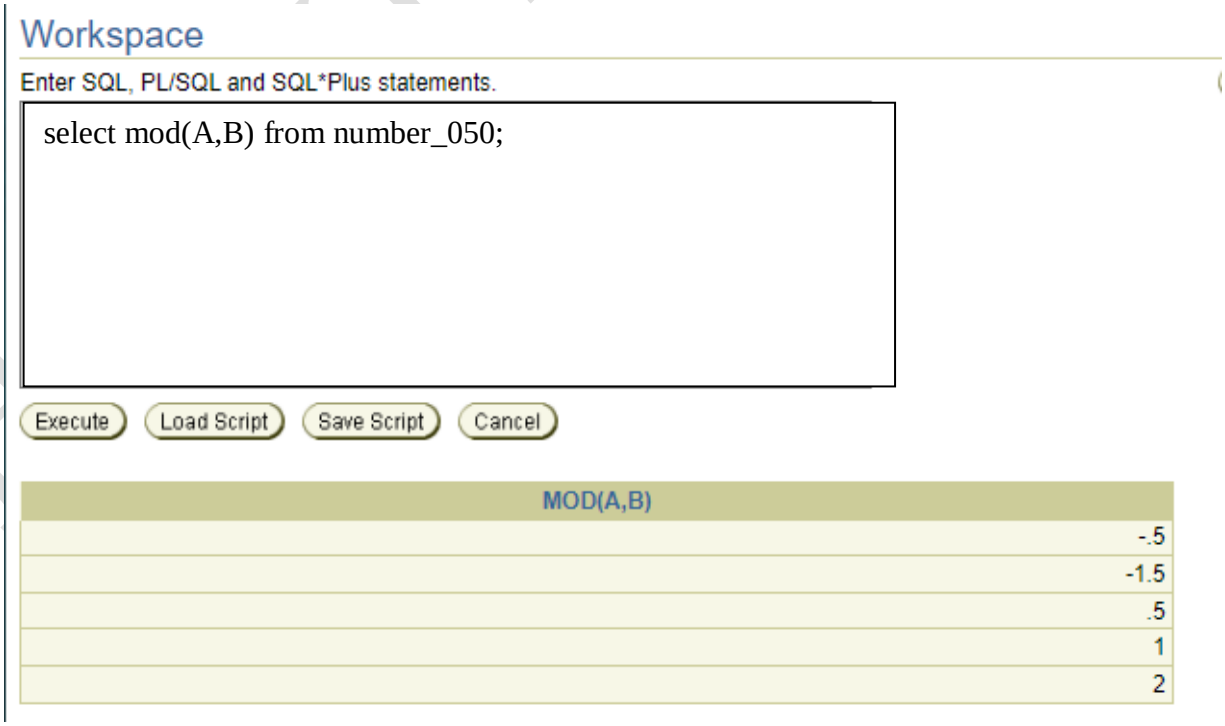
select sqrt(abs(A)) from number_050;



SQRT(ABS(A))
3.53553391
3.67423461
.707106781
1
1.41421356

e. Find the value of A mod B

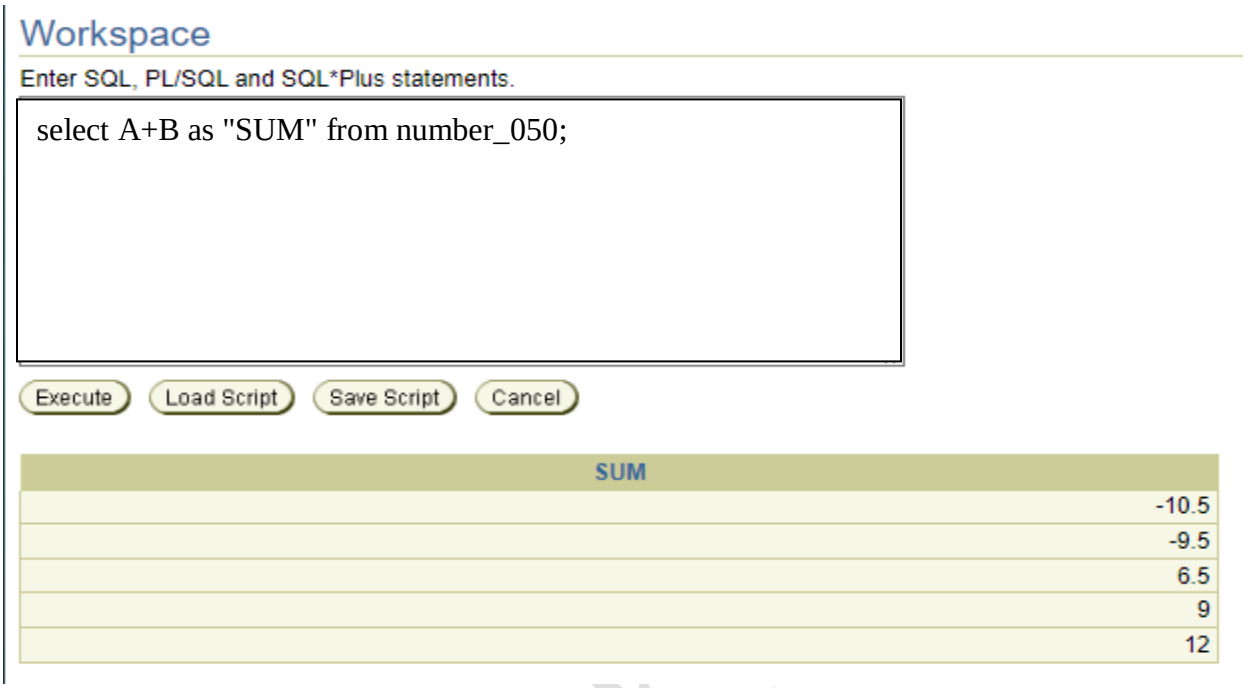
select mod(A,B) from number_050;



MOD(A,B)
-.5
-1.5
.5
1
2

f. Find the sum of column A and Column B

select A+B as "SUM" from number_050;



SUM
-10.5
-9.5
6.5
9
12

3. Give Syntax and Queries to demonstrate the use of following Character functions in System Defined Table

a. Initcap
b. Length
c. Substr
d. Instr
e. Trim
f. Ltrim
g. Rtrim
h. Lpad
i. Rpad
j. Upper
k. Lower
l. Replace

select initcap ('ram') from dual;

Workspace

Enter SQL, PL/SQL and SQL*Plus statements.

```
select initcap ('ram') from dual;
```

Execute | Load Script | Save Script | Cancel

INITCAP('
Ram

select length('ram') from dual;

Workspace

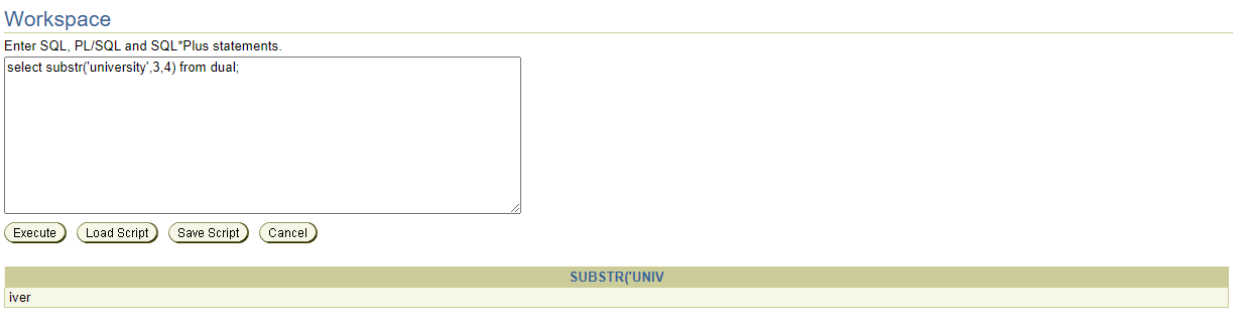
Enter SQL, PL/SQL and SQL*Plus statements.

```
select length('ram') from dual;
```

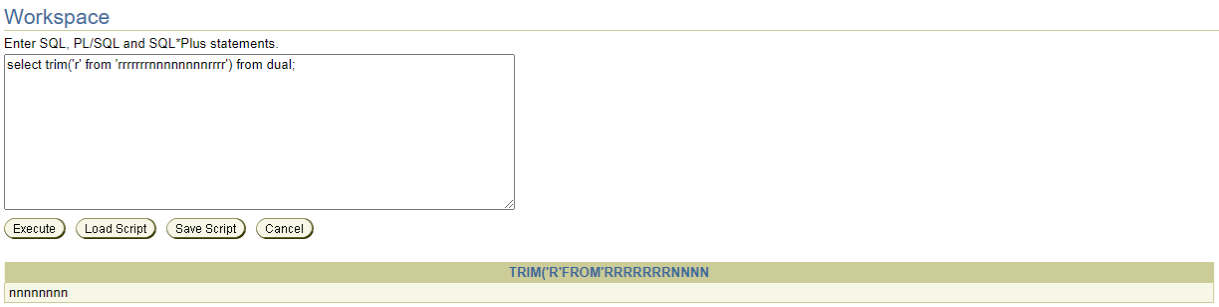
Execute | Load Script | Save Script | Cancel

LENGTH('RAM')
3

select substr('university',3,4) from dual;

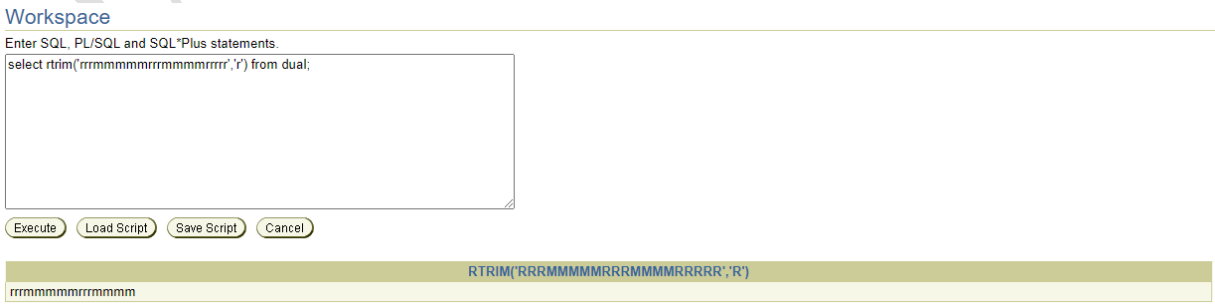


select trim('r' from 'rrrrrrrnnnnnnnnrrrr') from dual;

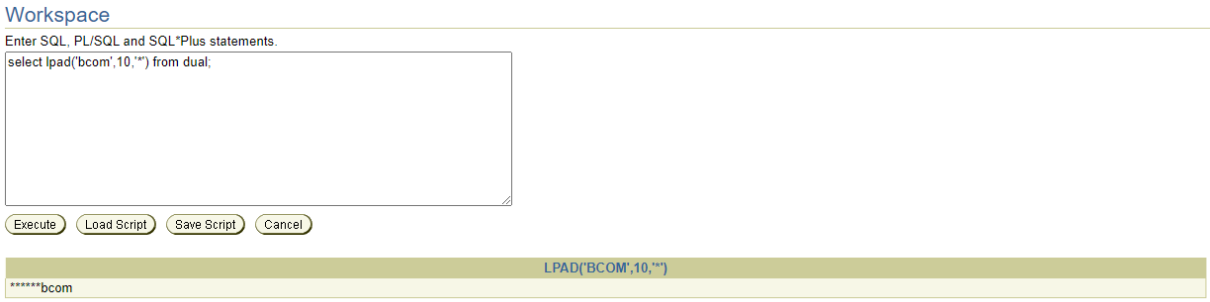


select ltrim('rrrmmmmmmrrrmmmmmrrrrr','r') from dual;

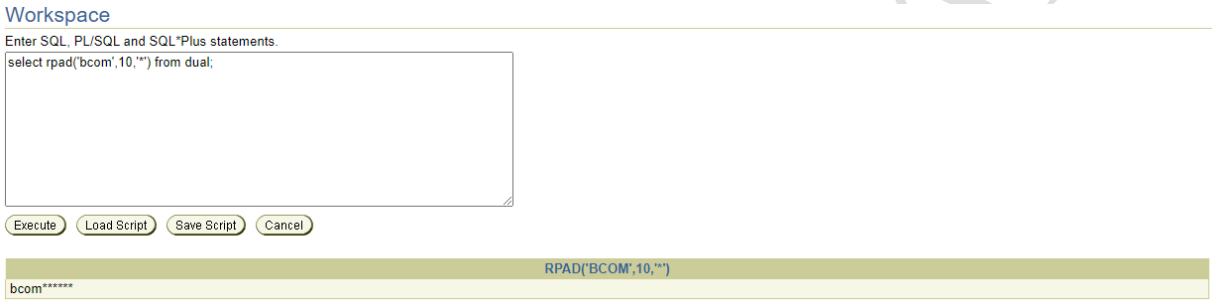
select rtrim('rrrmmmmmmrrrmmmmmrrrrr','r') from dual;



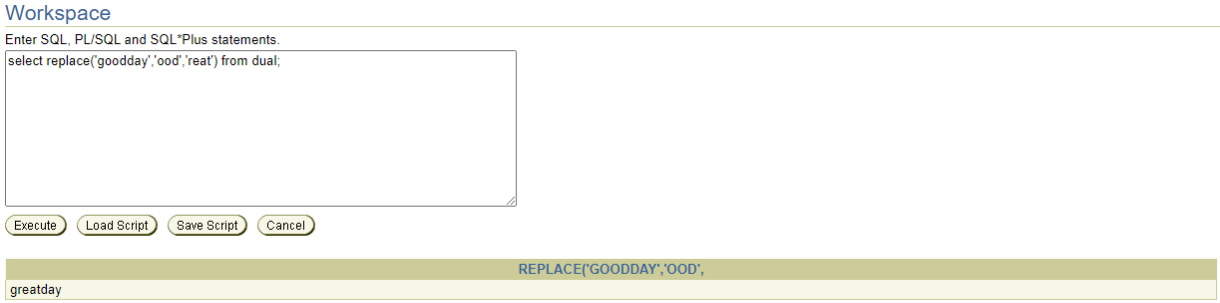
select lpad('bcom',10,'*') from dual;



select rpad('bcom',10,'*') from dual;



select replace('goodday','ood','reat') from dual;



4. Create the following table and perform the below mentioned Queries

Eid	Ename	Designation	Salary	City
101	Rajiv	Manager	10000	Delhi
102	Sita	Clerk	5000	Mumbai
103	Ram	Manager	10000	Chennai
104	Ramesh	Assistant	8000	Hyderabad
105	Shyam	Clerk	5000	Delhi

create table employee_050(Eid number(10), Ename varchar(15), Designation varchar(15), Salary number(10), city varchar(15));

desc employee_050;

Workspace

Enter SQL, PL/SQL and SQL*Plus statements.

```
desc employee_050;
```

Execute | Load Script | Save Script | Cancel

Name	Null?	Type
EID		NUMBER(10)
ENAME		VARCHAR2(15)
DESIGNATION		VARCHAR2(15)
SALARY		NUMBER(10)
CITY		VARCHAR2(15)

insert into employee_050 values(101,'Rajiv','Manager',10000,'Delhi');

insert into employee_050 values(102,'Sita','Clerk',5000,'Mumbai');

insert into employee_050 values(103,'Ram','Manager',10000,'Chennai');

insert into employee_050 values(104,'Ramesh','Assistant',8000,'Hyderabad');

insert into employee_050 values(105,'Shyam','Clerk',5000,'Delhi');

select * from employee_050;

Workspace

Enter SQL, PL/SQL and SQL*Plus statements.

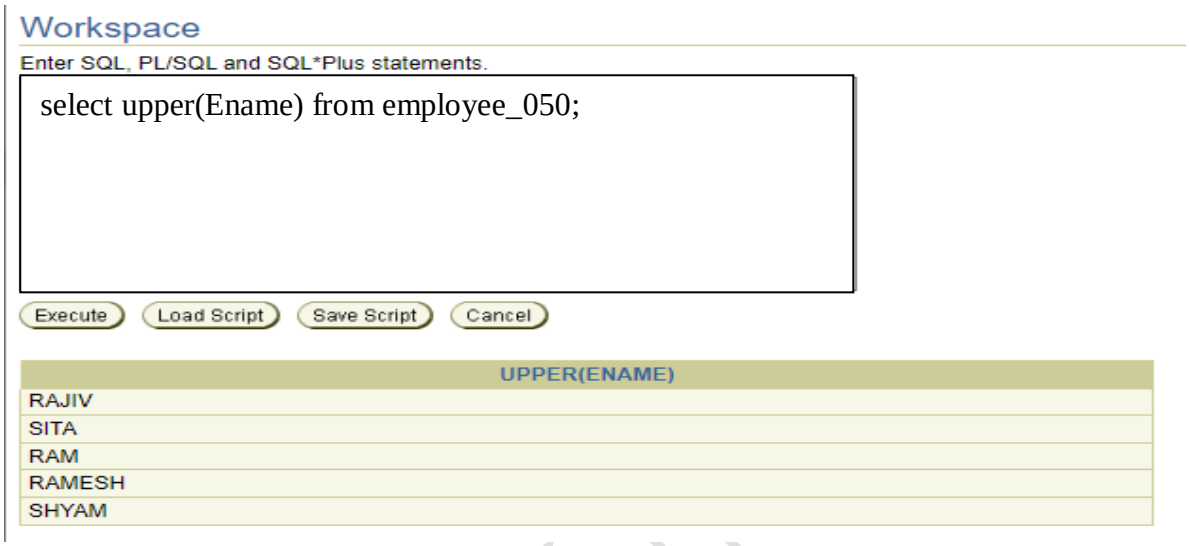
```
select * from employee_050;
```

Execute | Load Script | Save Script | Cancel

EID	ENAME	DESIGNATION	SALARY	CITY
101	Rajiv	Manager	10000	Delhi
102	Sita	Clerk	5000	Mumbai
103	Ram	Manager	10000	Chennai
104	Ramesh	Assistant	8000	Hyderabad
105	Shyam	Clerk	5000	Delhi

a. Convert the name of employees into uppercase

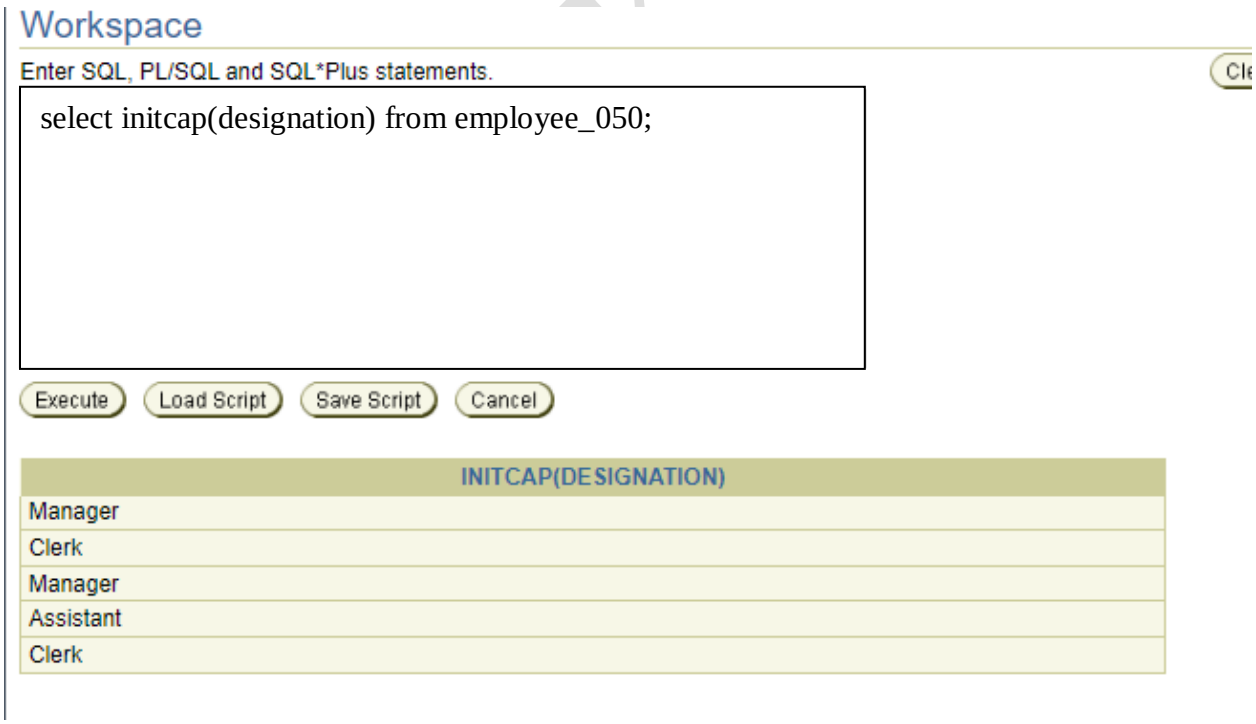
select upper(Ename) from employee_050;



UPPER(ENAME)
RAJIV
SITA
RAM
RAMESH
SHYAM

b. Capitalize the first letter of the designation of Employees

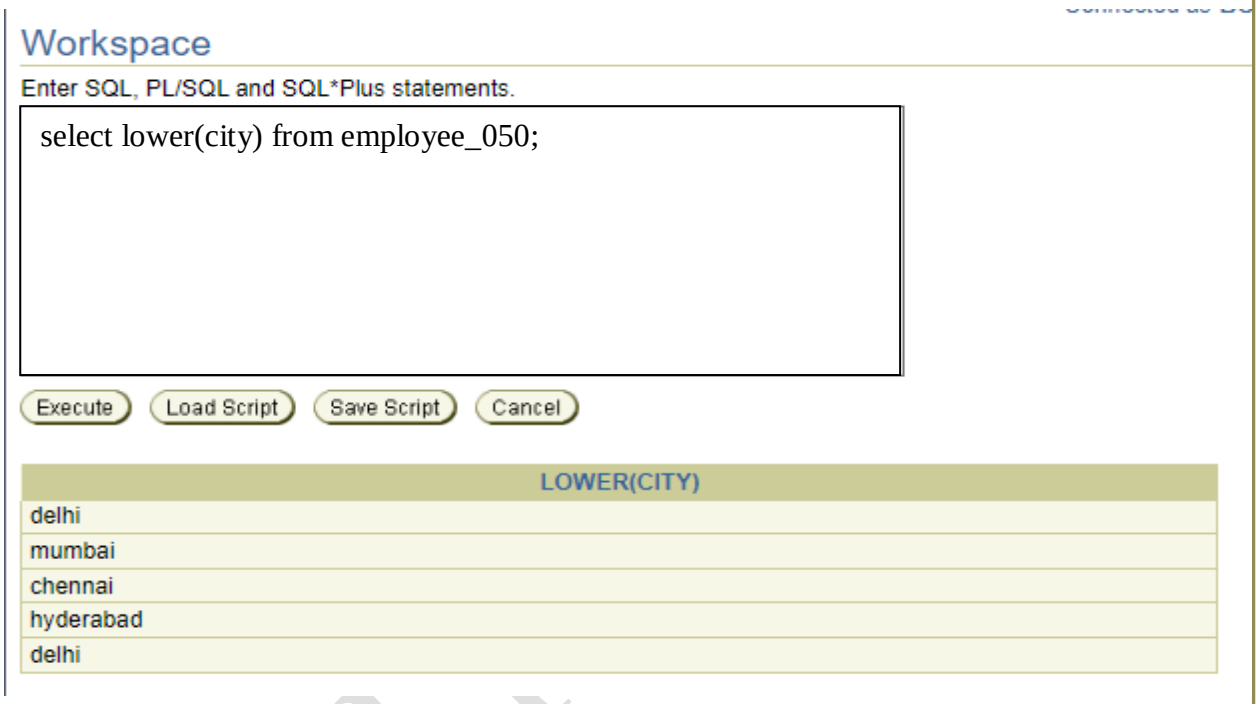
select initcap(designation) from employee_050;



INITCAP(DESIGNATION)
Manager
Clerk
Manager
Assistant
Clerk

c. Convert the city column into lowercase letters

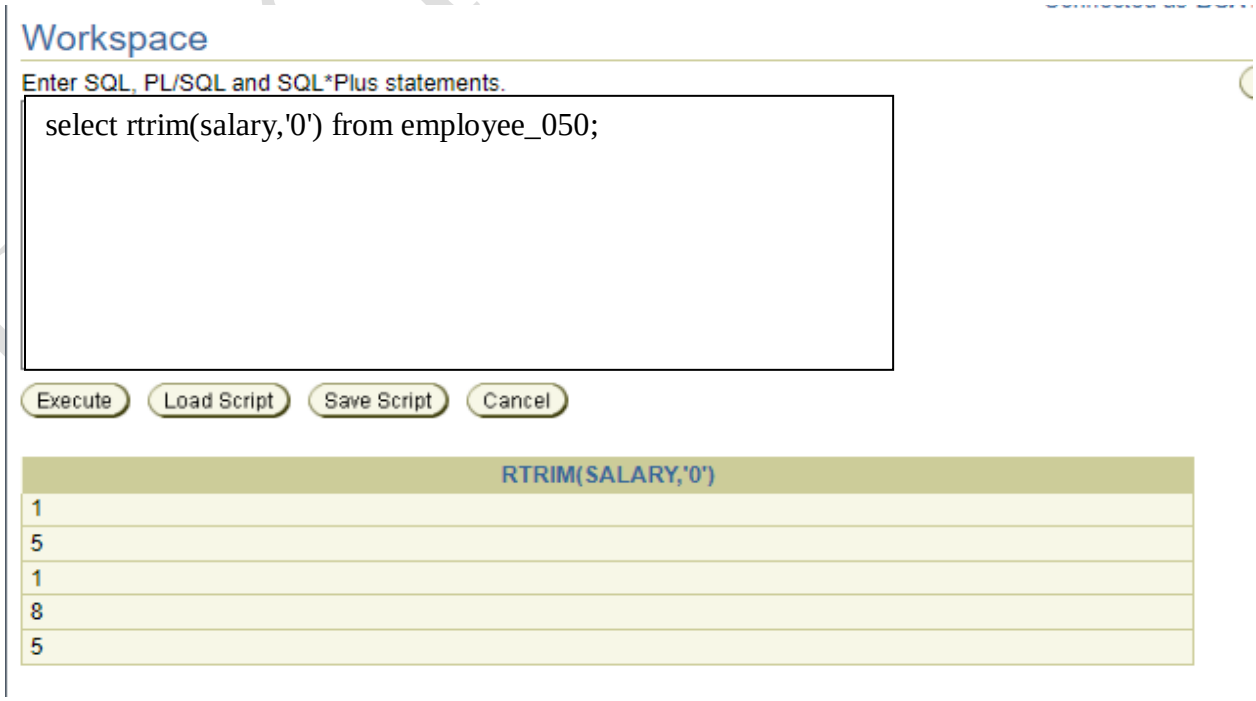
select lower(city) from employee_050;



LOWER(CITY)
delhi
mumbai
chennai
hyderabad
delhi

d. Trim zeroes from salary column

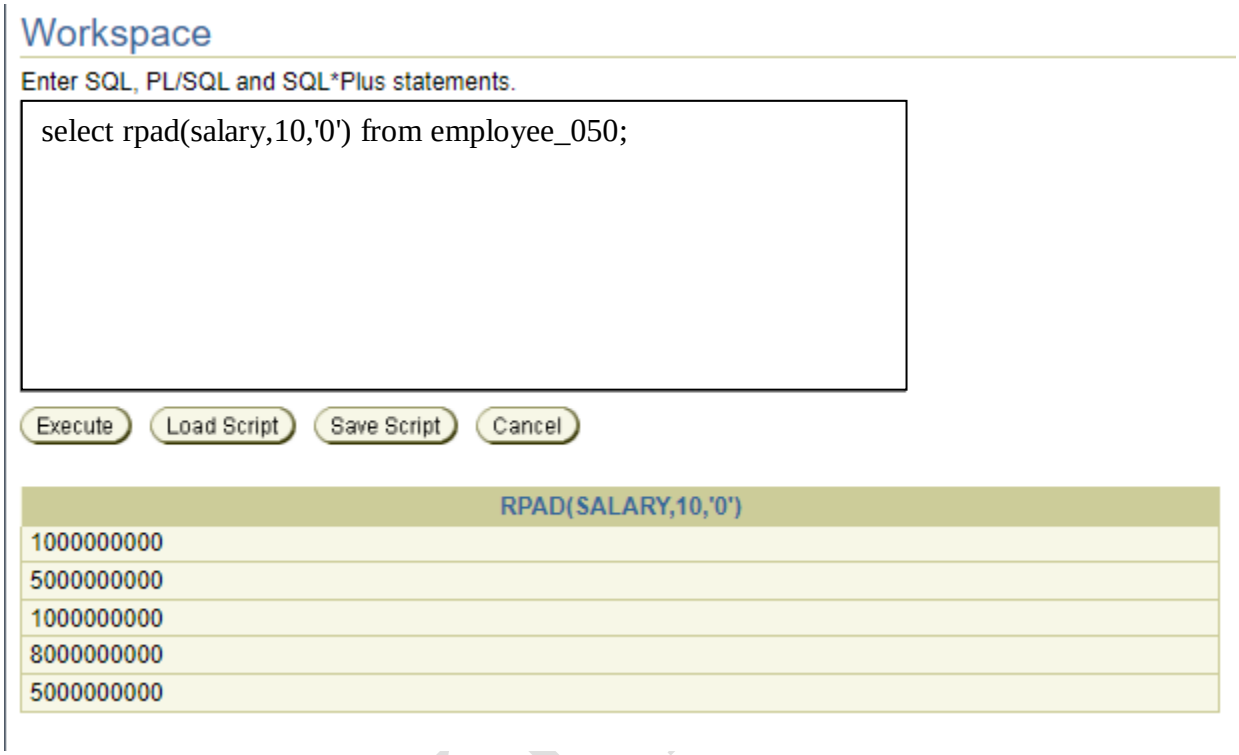
select rtrim(salary,'0') from employee_050;



RTRIM(SALARY,'0')
1
5
1
8
5

e. Pad the salary to 10 digits using Zeroes on right side

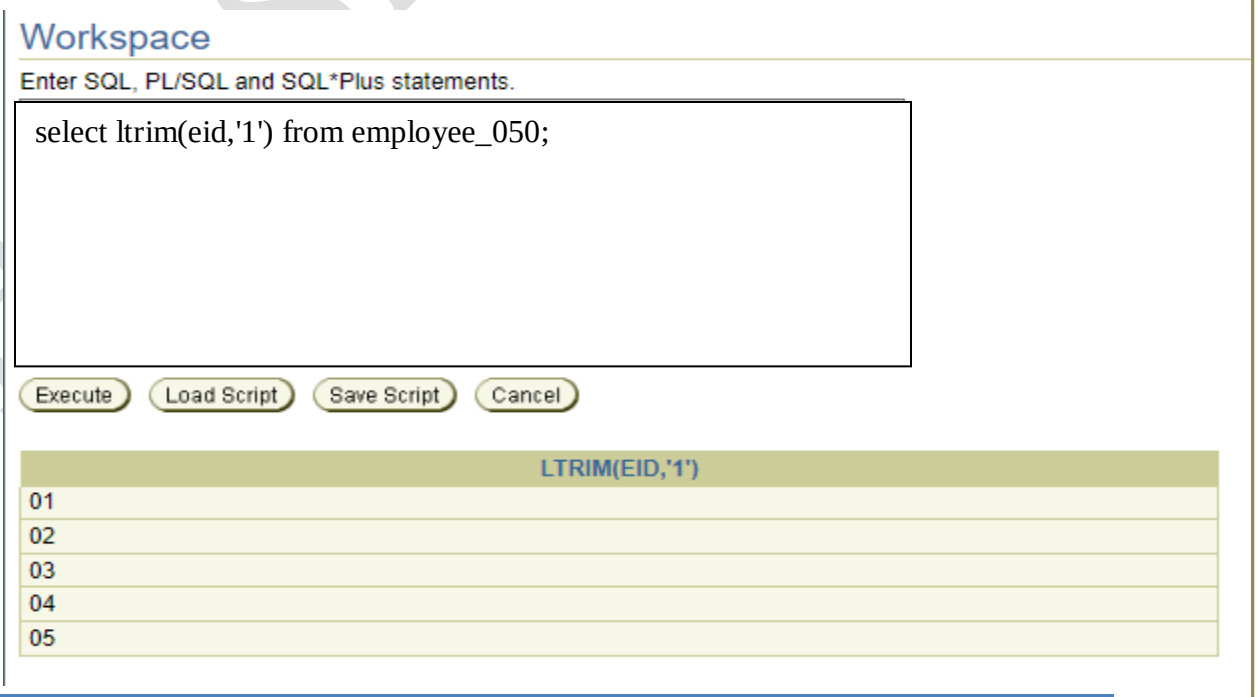
select rpad(salary,10,'0') from employee_050;



RPAD(SALARY,10,'0')
1000000000
5000000000
1000000000
8000000000
5000000000

f. Remove 1 from eid column

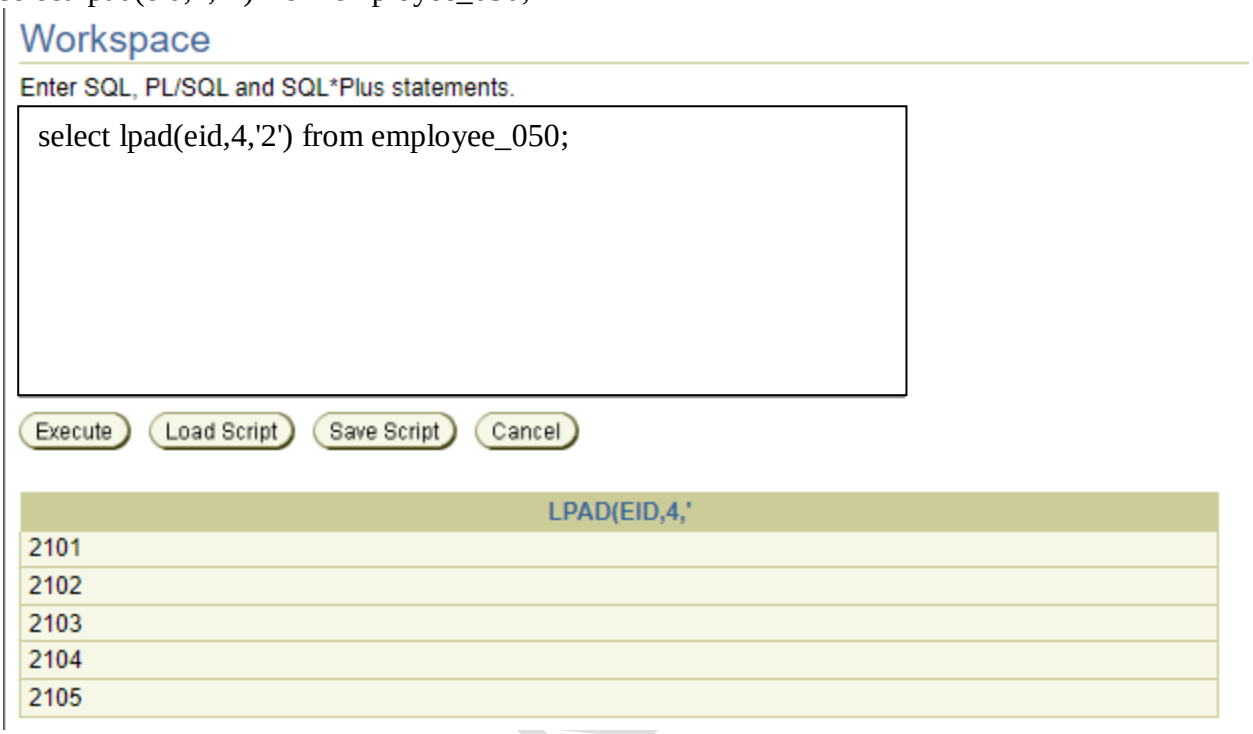
select ltrim(eid,'1') from employee_050;



LTRIM(EID,'1')
01
02
03
04
05

g. Prefix 2 to eid column

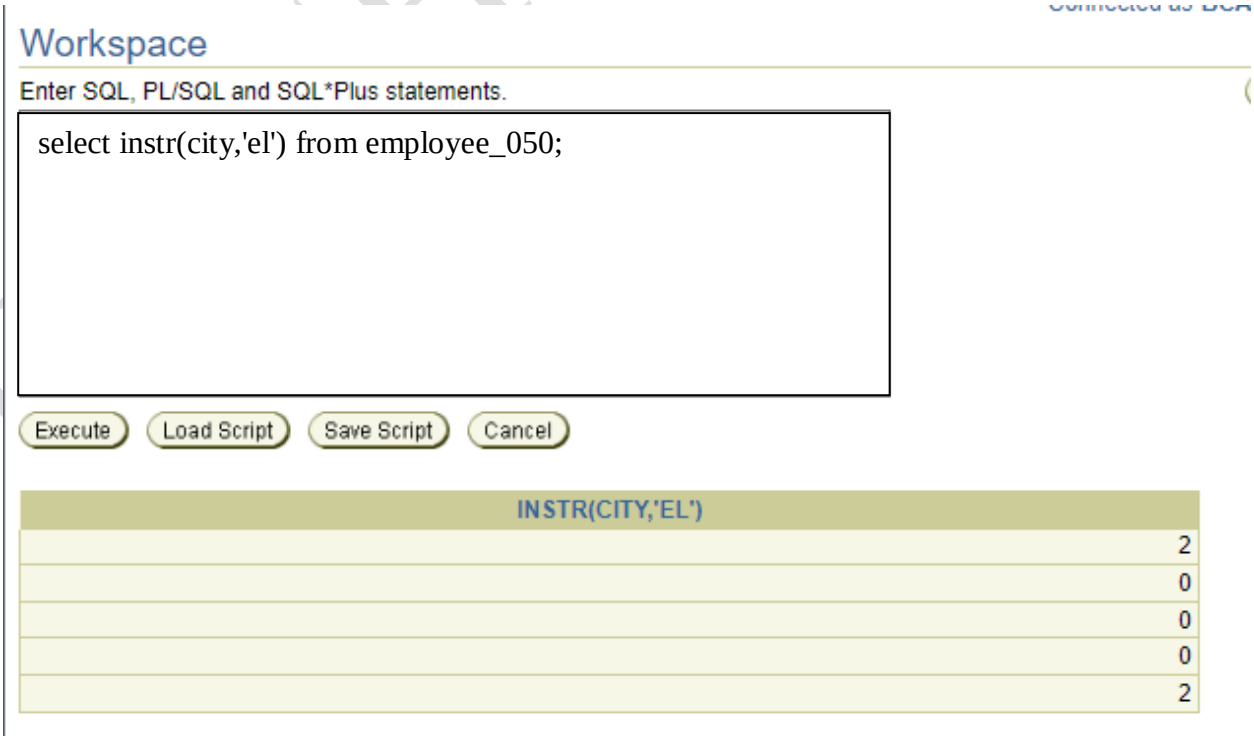
select lpad(eid,4,'2') from employee_050;



LPAD(EID,4,'
2101
2102
2103
2104
2105

h. Find the location of word “el” in city column

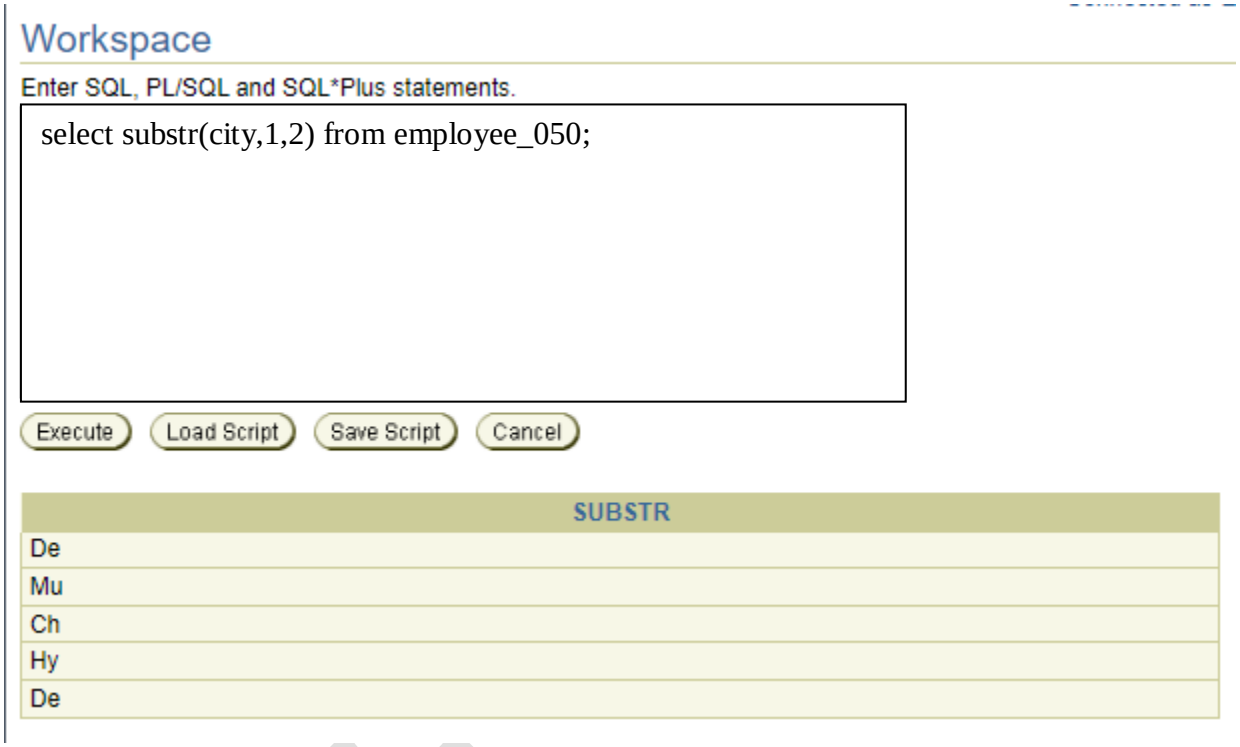
select instr(city,'el') from employee_050;



INSTR(CITY,'EL')
2
0
0
0
2

i. Find the first two digits of city column

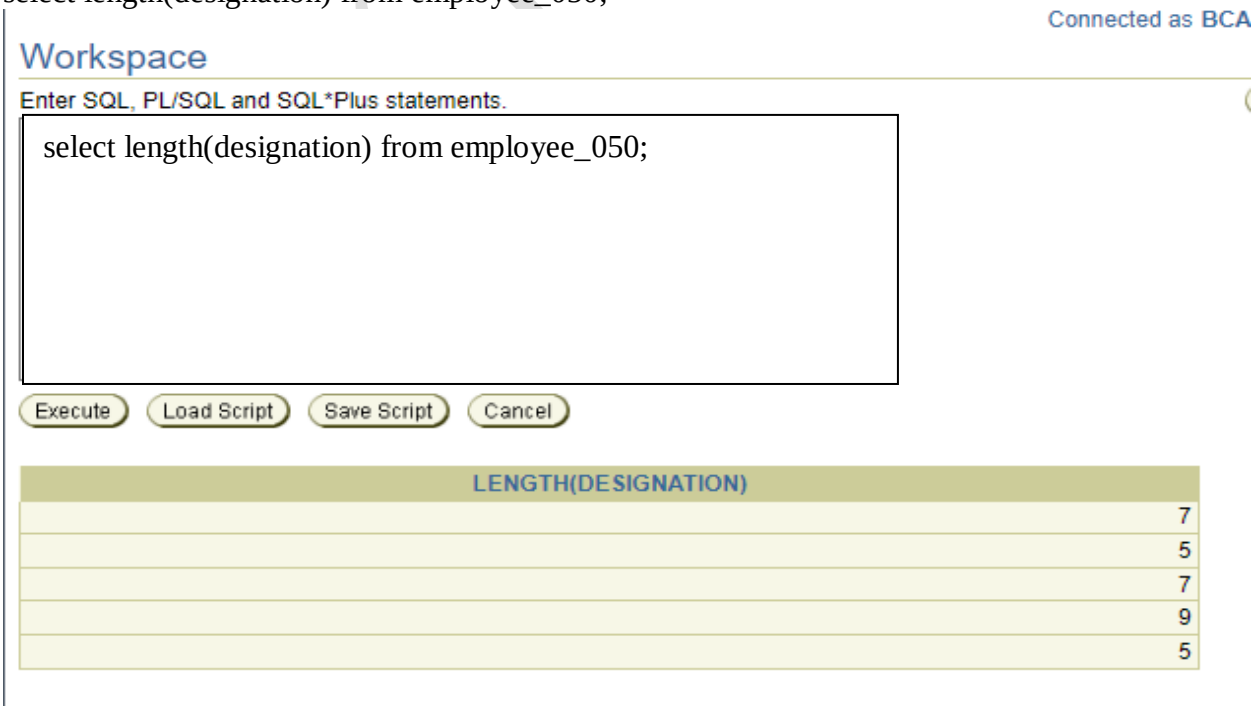
select substr(city,1,2) from employee_050;



SUBSTR
De
Mu
Ch
Hy
De

j. Find the length of designation column

select length(designation) from employee_050;



LENGTH(DESIGNATION)
7
5
7
9
5