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A Practical activity Report submitted for UCS310

DATABASE MANAGEMENT SYSTEM

THAPAR INSTITUTE
OF ENGINEERING & TECHNOLOGY
(Deemed to be University)

Computer Science and Engineering
Patiala Campus

2021

Assignment 3

Write queries to:

1. Display the system date
2. Display current day
3. Display current month and spell out year
4. Display spell out current date
5. Check whether it is AM or PM right now
6. Display the date of next Friday
7. Round the system date on month
8. Truncate the system date on month
9. Round the system date on year
10. Truncate the system date on year
11. Find the day after three days

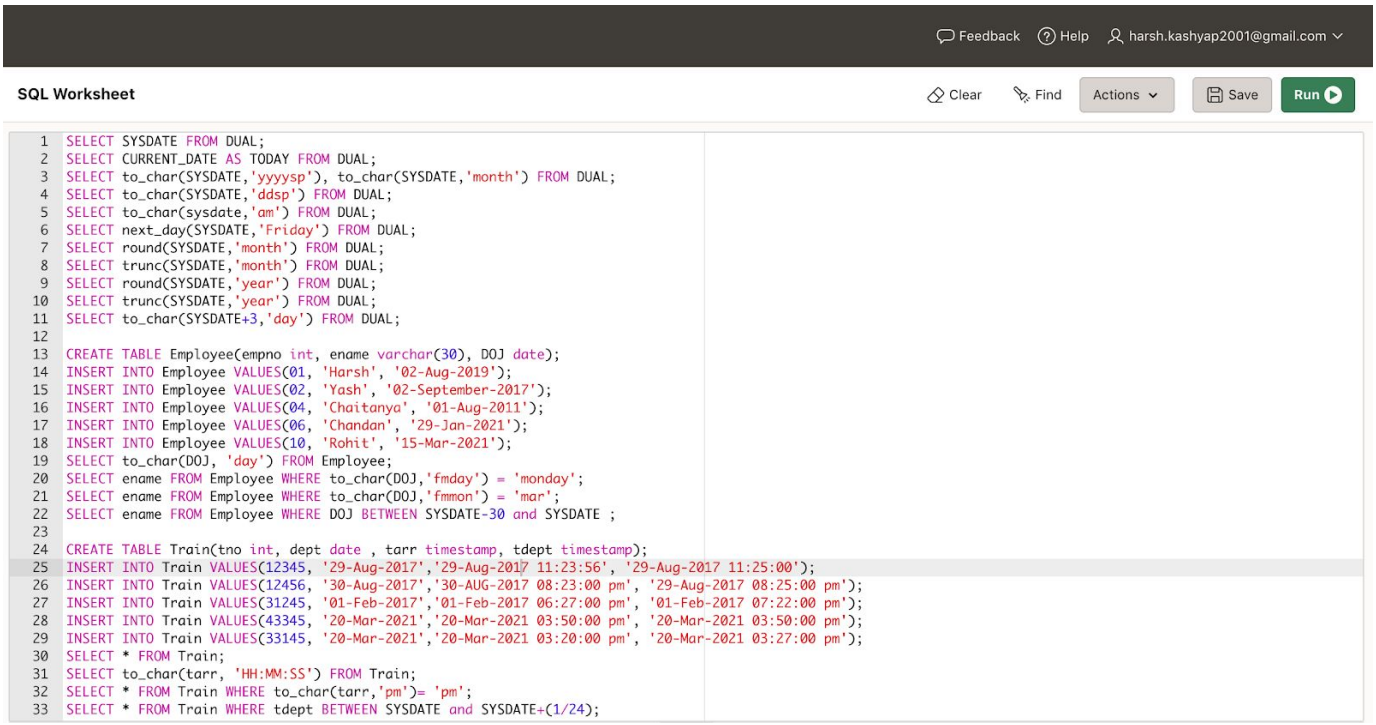
Queries Based on EMP table

12. Display day of date of joining column
13. Display those employees who join the company on Monday
14. Display those employees who join the company this month
15. Display those employees who join the company in last 30 days

Create a table train having three four columns

16. Train Number, date of Departure, time of departure, time of arrival
17. Insert five columns in train table
18. Display all the records
19. Display the time values inserted in the columns
20. Display those trains which arrived on PM
21. Display train numbers who are going to depart in the next one hour.

Solution -



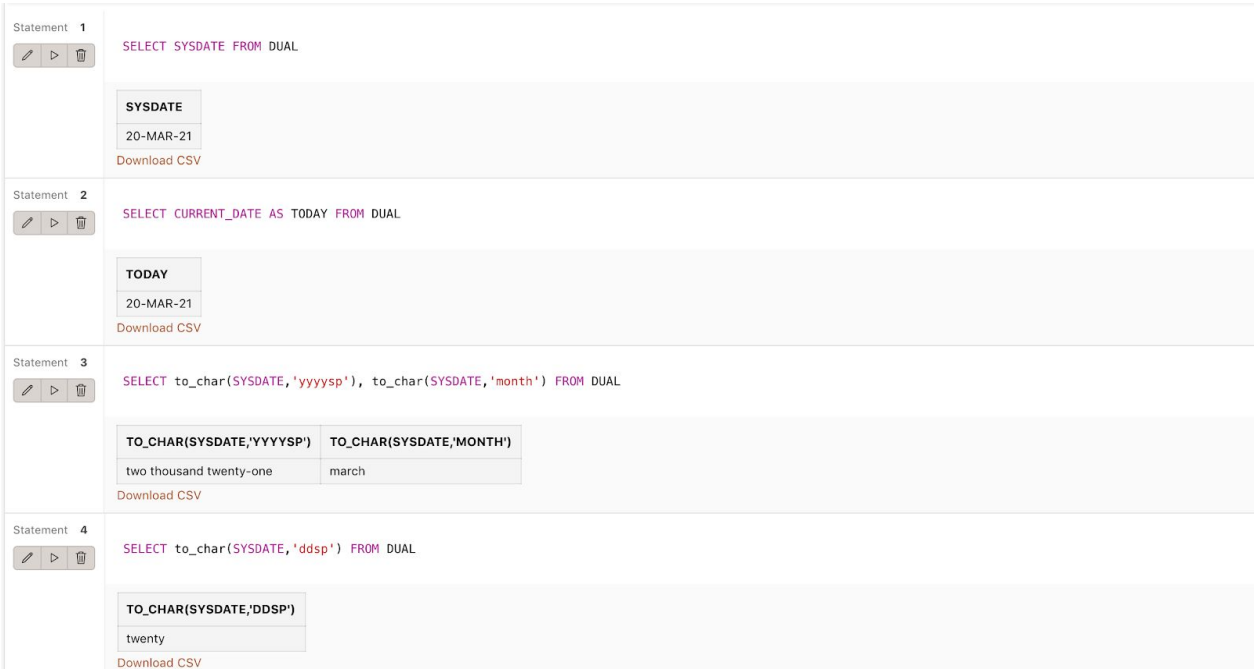

```
SELECT SYSDATE FROM DUAL;
SELECT CURRENT_DATE AS TODAY FROM DUAL;
SELECT to_char(SYSDATE,'yyyysp'), to_char(SYSDATE,'month') FROM DUAL;
SELECT to_char(SYSDATE,'ddsp') FROM DUAL;
SELECT to_char(sysdate,'am') FROM DUAL;
SELECT next_day(SYSDATE,'Friday') FROM DUAL;
SELECT round(SYSDATE,'month') FROM DUAL;
SELECT trunc(SYSDATE,'month') FROM DUAL;
SELECT round(SYSDATE,'year') FROM DUAL;
SELECT trunc(SYSDATE,'year') FROM DUAL;
SELECT to_char(SYSDATE+3,'day') FROM DUAL;

CREATE TABLE Employee(empno int, ename varchar(30), DOJ date);
INSERT INTO Employee VALUES(01, 'Harsh', '02-Aug-2019');
INSERT INTO Employee VALUES(02, 'Yash', '02-September-2017');
INSERT INTO Employee VALUES(04, 'Chaitanya', '01-Aug-2011');
INSERT INTO Employee VALUES(06, 'Chandan', '29-Jan-2021');
INSERT INTO Employee VALUES(10, 'Rohit', '15-Mar-2021');
SELECT to_char(DOJ, 'day') FROM Employee;
SELECT ename FROM Employee WHERE to_char(DOJ,'fmday') = 'monday';
SELECT ename FROM Employee WHERE to_char(DOJ,'fmmon') = 'mar';
SELECT ename FROM Employee WHERE DOJ BETWEEN SYSDATE-30 and SYSDATE ;

CREATE TABLE Train(tno int, dept date , tarr timestamp, tdept timestamp);
INSERT INTO Train VALUES(12345, '29-Aug-2017','29-Aug-2017 11:23:56', '29-Aug-2017 11:25:00');
INSERT INTO Train VALUES(12456, '30-Aug-2017','30-AUG-2017 08:23:00 pm', '29-Aug-2017 08:25:00 pm');
INSERT INTO Train VALUES(31245, '01-Feb-2017','01-Feb-2017 06:27:00 pm', '01-Feb-2017 07:22:00 pm');
INSERT INTO Train VALUES(43345, '20-Mar-2021','20-Mar-2021 03:50:00 pm', '20-Mar-2021 03:50:00 pm');
INSERT INTO Train VALUES(33145, '20-Mar-2021','20-Mar-2021 03:20:00 pm', '20-Mar-2021 03:27:00 pm');
SELECT * FROM Train;
SELECT to_char(tarr, 'HH:MM:SS') FROM Train;
SELECT * FROM Train WHERE to_char(tarr,'pm')= 'pm';
SELECT * FROM Train WHERE tdept BETWEEN SYSDATE and SYSDATE+(1/24);
```

Script:

```
SELECT SYSDATE FROM DUAL;
SELECT CURRENT_DATE AS TODAY FROM DUAL;
SELECT to_char(SYSDATE,'yyyysp'), to_char(SYSDATE,'month') FROM DUAL;
SELECT to_char(SYSDATE,'ddsp') FROM DUAL;
SELECT to_char(sysdate,'am') FROM DUAL;
SELECT next_day(SYSDATE,'Friday') FROM DUAL;
SELECT round(SYSDATE,'month') FROM DUAL;
SELECT trunc(SYSDATE,'month') FROM DUAL;
SELECT round(SYSDATE,'year') FROM DUAL;
SELECT trunc(SYSDATE,'year') FROM DUAL;
SELECT to_char(SYSDATE+3,'day') FROM DUAL;

CREATE TABLE Employee(empno int, ename varchar(30), DOJ date);
INSERT INTO Employee VALUES(01, 'Harsh', '02-Aug-2019');
INSERT INTO Employee VALUES(02, 'Yash', '02-September-2017');
INSERT INTO Employee VALUES(04, 'Chaitanya', '01-Aug-2011');
```

```
INSERT INTO Employee VALUES(06, 'Chandan', '29-Jan-2021');
INSERT INTO Employee VALUES(10, 'Rohit', '15-Mar-2021');
SELECT to_char(DOJ, 'day') FROM Employee;
SELECT ename FROM Employee WHERE to_char(DOJ,'fmday') = 'monday';
SELECT ename FROM Employee WHERE to_char(DOJ,'fmmon') = 'mar';
SELECT ename FROM Employee WHERE DOJ BETWEEN SYSDATE-30 and SYSDATE ;

CREATE TABLE Train(tno int, dept date , tarr timestamp, tdept timestamp);
INSERT INTO Train VALUES(12345, '29-Aug-2017','29-Aug-2017 11:23:56', '29-Aug-2017 11:25:00');
INSERT INTO Train VALUES(12456, '30-Aug-2017','30-AUG-2017 08:23:00 pm', '29-Aug-2017 08:25:00 pm');
INSERT INTO Train VALUES(31245, '01-Feb-2017','01-Feb-2017 06:27:00 pm', '01-Feb-2017 07:22:00 pm');
INSERT INTO Train VALUES(43345, '20-Mar-2021','20-Mar-2021 03:50:00 pm', '20-Mar-2021 03:50:00 pm');
INSERT INTO Train VALUES(33145, '20-Mar-2021','20-Mar-2021 03:20:00 pm', '20-Mar-2021 03:27:00 pm');
SELECT * FROM Train;
SELECT to_char(tarr, 'HH:MM:SS') FROM Train;
SELECT * FROM Train WHERE to_char(tarr,'pm')= 'pm';
SELECT * FROM Train WHERE tdept BETWEEN SYSDATE and SYSDATE+(1/24);
```

Screenshots



Statement 1

```
SELECT SYSDATE FROM DUAL
```

SYSDATE
20-MAR-21

Download CSV

Statement 2

```
SELECT CURRENT_DATE AS TODAY FROM DUAL
```

TODAY
20-MAR-21

Download CSV

Statement 3

```
SELECT to_char(SYSDATE,'yyyysp'), to_char(SYSDATE,'month') FROM DUAL
```

TO_CHAR(SYSDATE,'YYYYSP')	TO_CHAR(SYSDATE,'MONTH')
two thousand twenty-one	march

Download CSV

Statement 4

```
SELECT to_char(SYSDATE,'ddsp') FROM DUAL
```

TO_CHAR(SYSDATE,'DDSP')
twenty

Download CSV

Statement 5

```
SELECT to_char(sysdate,'am') FROM DUAL
```

TO_CHAR(SYSDATE,'AM')
am

Download CSV

Statement 6

```
SELECT next_day(SYSDATE,'Friday') FROM DUAL
```

NEXT_DAY(SYSDATE,'FRIDAY')
26-MAR-21

Download CSV

Statement 7

```
SELECT round(SYSDATE,'month') FROM DUAL
```

ROUND(SYSDATE,'MONTH')
01-APR-21

Download CSV

Statement 8

```
SELECT trunc(SYSDATE,'month') FROM DUAL
```

TRUNC(SYSDATE,'MONTH')
01-MAR-21

Download CSV

Statement 9

```
SELECT round(SYSDATE,'year') FROM DUAL
```

ROUND(SYSDATE,'YEAR')
01-JAN-21

Download CSV

Statement 10

```
SELECT trunc(SYSDATE,'year') FROM DUAL
```

TRUNC(SYSDATE,'YEAR')
01-JAN-21

Download CSV

Statement 11

```
SELECT to_char(SYSDATE+3,'day') FROM DUAL
```

TO_CHAR(SYSDATE+3,'DAY')
tuesday

Download CSV

Statement 12

```
CREATE TABLE Employee(empno int, ename varchar(30), DOJ date)
```

Table created.

Statement 13

```
INSERT INTO Employee VALUES(01, 'Harsh', '02-Aug-2019')
```

Statement 14

```
INSERT INTO Employee VALUES(02, 'Yash', '02-Sept-2017')
```

ORA-01861: literal does not match format string ORA-06512: at "SYS.DBMS_SQL", line 1721

Statement 15

```
INSERT INTO Employee VALUES(04, 'Chaitanya', '01-Aug-2011')
```

1 row(s) inserted.

Statement 16

```
INSERT INTO Employee VALUES(06, 'Chandan', '29-Jan-2021')
```

1 row(s) inserted.

Statement 17

```
INSERT INTO Employee VALUES(10, 'Rohit', '15-Mar-2021')
```

1 row(s) inserted.

Statement 18

```
INSERT INTO Employee VALUES(02, 'Yash', '02-September-2017')
```

1 row(s) inserted.

```
SELECT to_char(DOJ, 'day') FROM Employee
```

TO_CHAR(DOJ,'DAY')
friday
monday
friday
monday
saturday

Download CSV
5 rows selected.

Statement 20

```
SELECT ename FROM Employee WHERE to_char(DOJ,'fmday') = 'monday'
```

ENAME
Chaitanya
Rohit

Download CSV
2 rows selected.

Statement 21

```
SELECT ename FROM Employee WHERE to_char(DOJ,'fmmon') = 'mar'
```

ENAME
Rohit

Download CSV

Statement 22

```
SELECT ename FROM Employee WHERE DOJ BETWEEN SYSDATE-30 and SYSDATE
```

ENAME
Rohit

Download CSV

Statement 23

```
CREATE TABLE Train(tno int, dept date , tarr timestamp, tdept timestamp)
```

Table created.

Statement 24

```
INSERT INTO Train VALUES(12345, '29-Aug-2017','29-Aug-2017 11:23:56', '29-Aug-2017 11:25:00')
```

1 row(s) inserted.

Statement 25

```
INSERT INTO Train VALUES(12456, '30-Aug-2017','30-AUG-2017 08:23:00 pm', '29-Aug-2017 08:25:00 pm')
```

1 row(s) inserted.

Statement 26

```
INSERT INTO Train VALUES(31245, '01-Feb-2017','01-Feb-2017 06:27:00 pm', '01-Feb-2017 07:22:00 pm')
```

1 row(s) inserted.

Statement 27

```
INSERT INTO Train VALUES(43345, '20-Mar-2021','20-Mar-2021 03:50:00 pm', '20-Mar-2021 03:50:00 pm')
```

1 row(s) inserted.

Statement 28

```
INSERT INTO Train VALUES(33145, '20-Mar-2021','20-Mar-2021 03:20:00 pm', '20-Mar-2021 03:27:00 pm')
```

1 row(s) inserted.

Statement 29

```
SELECT * FROM Train
```

TNO	DEPT	TARR	TDEPT
12345	29-AUG-17	29-AUG-17 11.23.56.000000 AM	29-AUG-17 11.25.00.000000 AM
12456	30-AUG-17	30-AUG-17 08.23.00.000000 PM	29-AUG-17 08.25.00.000000 PM
31245	01-FEB-17	01-FEB-17 06.27.00.000000 PM	01-FEB-17 07.22.00.000000 PM
43345	20-MAR-21	20-MAR-21 03.50.00.000000 PM	20-MAR-21 03.50.00.000000 PM
33145	20-MAR-21	20-MAR-21 03.20.00.000000 PM	20-MAR-21 03.27.00.000000 PM

Download CSV

5 rows selected.

Statement 30

```
SELECT to_char(tarr, 'HH:MM:SS') FROM Train
```

TO_CHAR(TARR,'HH:MM:SS')
11:08:56
08:08:00

Statement 30

```
SELECT to_char(tarr, 'HH:MM:SS') FROM Train
```

TO_CHAR(TARR,'HH:MM:SS')
11:08:56
08:08:00
06:02:00
03:03:00
03:03:00

Download CSV
5 rows selected.

Statement 31

```
SELECT * FROM Train WHERE to_char(tarr,'pm')= 'pm'
```

TNO	DEPT	TARR	TDEPT
12456	30-AUG-17	30-AUG-17 08.23.00.000000 PM	29-AUG-17 08.25.00.000000 PM
31245	01-FEB-17	01-FEB-17 06.27.00.000000 PM	01-FEB-17 07.22.00.000000 PM
43345	20-MAR-21	20-MAR-21 03.50.00.000000 PM	20-MAR-21 03.50.00.000000 PM
33145	20-MAR-21	20-MAR-21 03.20.00.000000 PM	20-MAR-21 03.27.00.000000 PM

Download CSV
4 rows selected.

Statement 32

```
SELECT * FROM Train WHERE tdept BETWEEN SYSDATE and SYSDATE+(1/24)
```

no data found

Statement 33

```
SELECT * FROM Train WHERE tdept BETWEEN SYSDATE and SYSDATE+(10/24)
```

TNO	DEPT	TARR	TDEPT
43345	20-MAR-21	20-MAR-21 03.50.00.000000 PM	20-MAR-21 03.50.00.000000 PM
33145	20-MAR-21	20-MAR-21 03.20.00.000000 PM	20-MAR-21 03.27.00.000000 PM

Download CSV
2 rows selected.

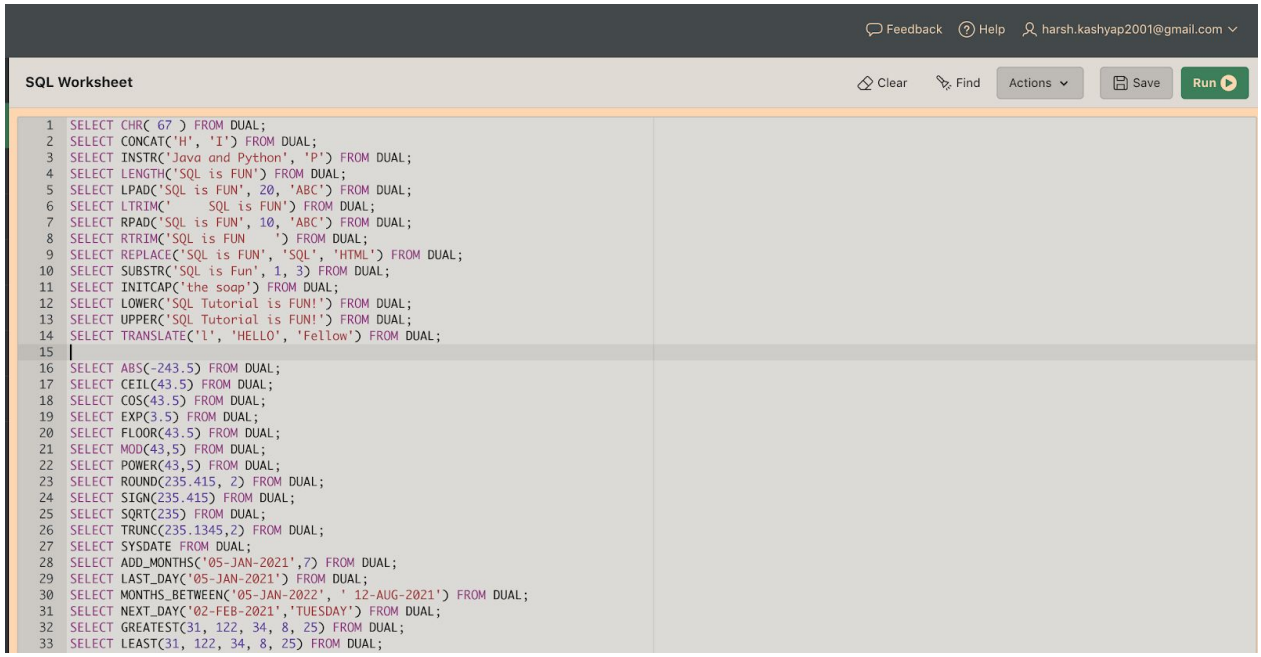
———————————————————————————————————————

Assignment 4

Question 1

1. chr (n):
2. cancat(char1,char2):
3. instr(string,char):
4. length(n):
5. lpad(char1 ,n [,char2]):
6. ltrim(string [,char(s)]):
7. rpad(char1 ,n [,char2]):
8. rtrim(string [,char(s)]):
9. replace(char ,search_string , replacement_string):
10. substr(string ,position ,substring length):
11. initcap(char):
12. lower(string):
13. upper(string):
14. translate(char ,from string ,to string):
15. abs(n):
16. ceil(n):
17. cos(n):
18. exp(n):
19. floor(n):
20. mod(m ,n):
21. power(x ,y):
22. round(x [,y]):
23. sign(n):
24. sqrt(n);
25. trunc(x ,n):
26. sysdate:
27. add_months(d ,n):
28. last_day():
29. months_between(date1 ,date2):
30. next_day(date ,char):
31. greatest(expr):
32. least(expr):

Solution -

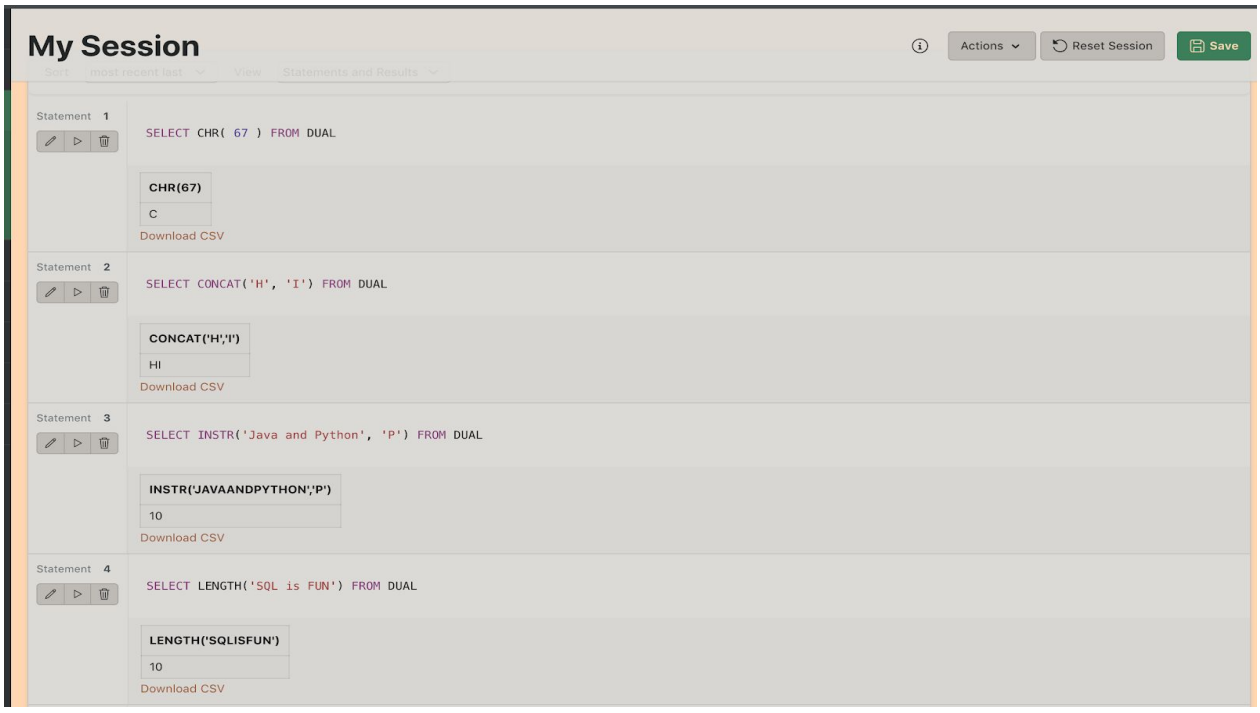


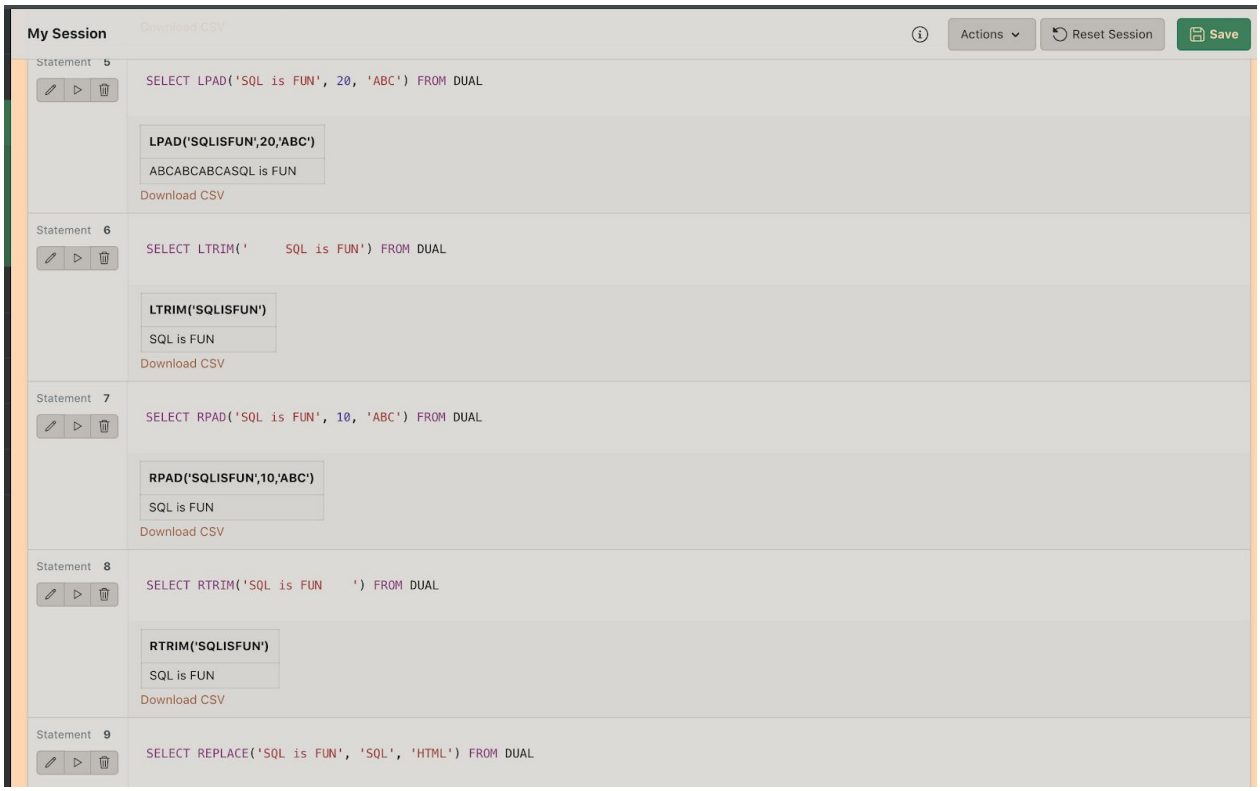
Script:

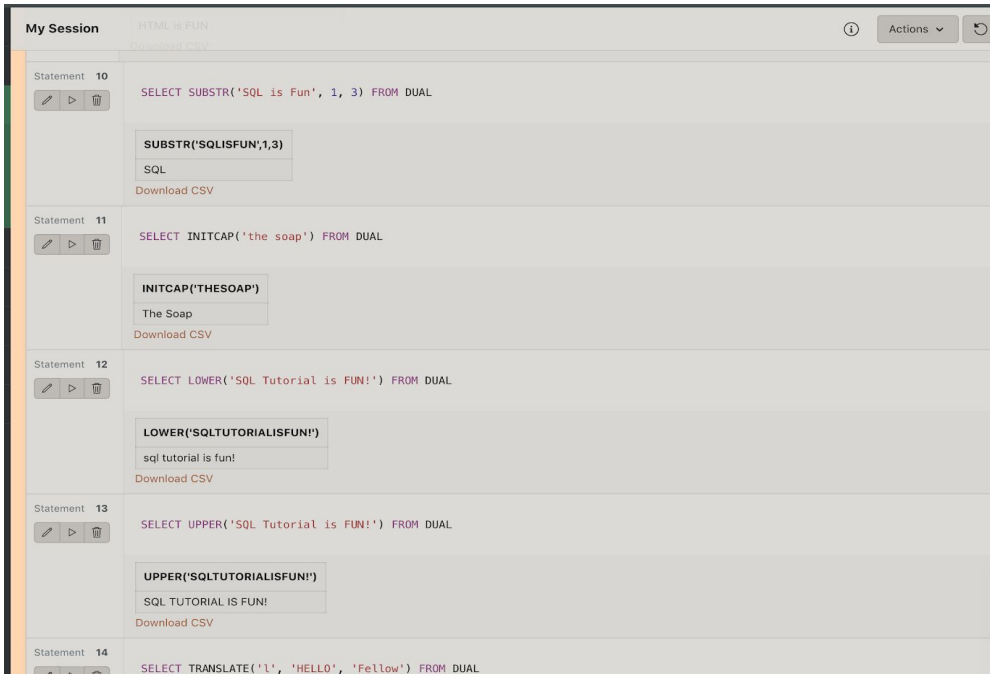
```
SELECT CHR( 67 ) FROM DUAL;
SELECT CONCAT('H', 'I') FROM DUAL;
SELECT INSTR('Java and Python', 'P') FROM DUAL;
SELECT LENGTH('SQL is FUN') FROM DUAL;
SELECT LPAD('SQL is FUN', 20, 'ABC') FROM DUAL;
SELECT LTRIM('     SQL is FUN') FROM DUAL;
SELECT RPAD('SQL is FUN', 10, 'ABC') FROM DUAL;
SELECT RTRIM('SQL is FUN    ') FROM DUAL;
SELECT REPLACE('SQL is FUN', 'SQL', 'HTML') FROM DUAL;
SELECT SUBSTR('SQL is Fun', 1, 3) FROM DUAL;
SELECT INITCAP('the soap') FROM DUAL;
SELECT LOWER('SQL Tutorial is FUN!') FROM DUAL;
SELECT UPPER('SQL Tutorial is FUN!') FROM DUAL;
SELECT TRANSLATE('l', 'HELLO', 'Fellow') FROM DUAL;

SELECT ABS(-243.5) FROM DUAL;
SELECT CEIL(43.5) FROM DUAL;
SELECT COS(43.5) FROM DUAL;
SELECT EXP(3.5) FROM DUAL;
SELECT FLOOR(43.5) FROM DUAL;
```

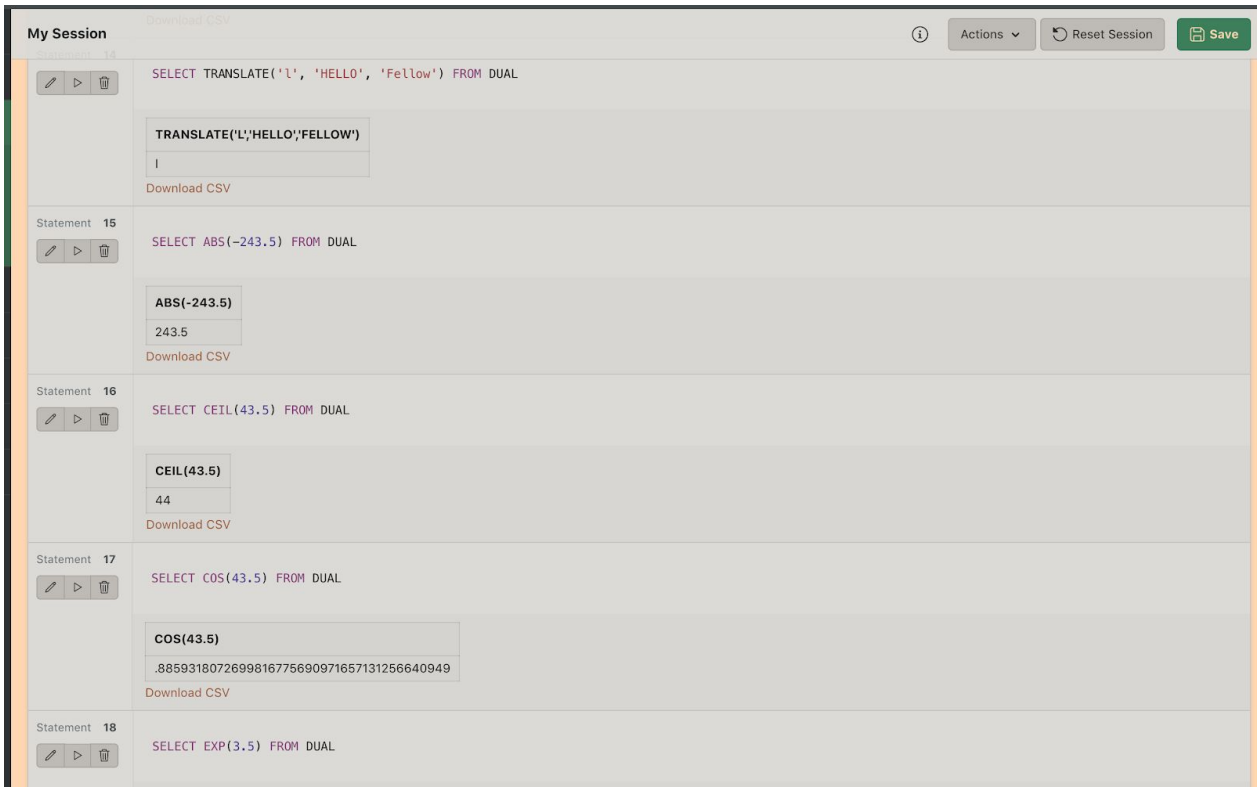
```
SELECT MOD(43,5) FROM DUAL;
SELECT POWER(43,5) FROM DUAL;
SELECT ROUND(235.415, 2) FROM DUAL;
SELECT SIGN(235.415) FROM DUAL;
SELECT SQRT(235) FROM DUAL;
SELECT TRUNC(235.1345,2) FROM DUAL;
SELECT SYSDATE FROM DUAL;
SELECT ADD_MONTHS('05-JAN-2021',7) FROM DUAL;
SELECT LAST_DAY('05-JAN-2021') FROM DUAL;
SELECT MONTHS_BETWEEN('05-JAN-2022', ' 12-AUG-2021') FROM DUAL;
SELECT NEXT_DAY('02-FEB-2021','TUESDAY') FROM DUAL;
SELECT GREATEST(31, 122, 34, 8, 25) FROM DUAL;
SELECT LEAST(31, 122, 34, 8, 25) FROM DUAL;
```

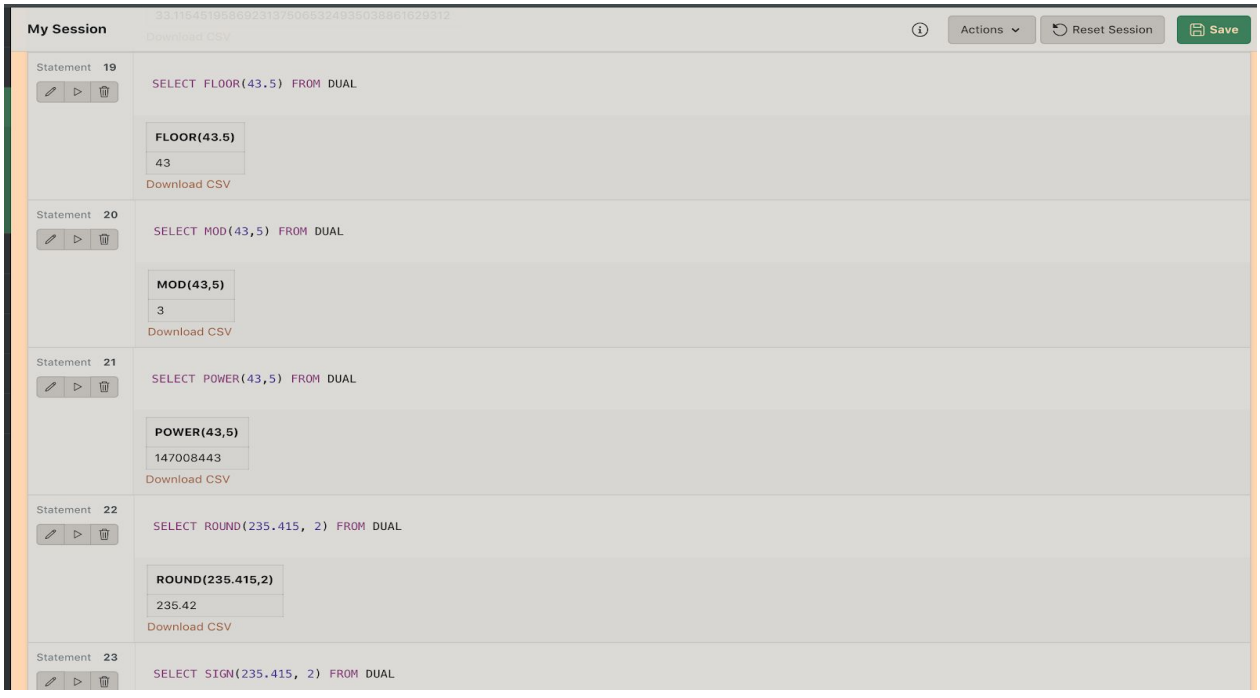
Screenshots

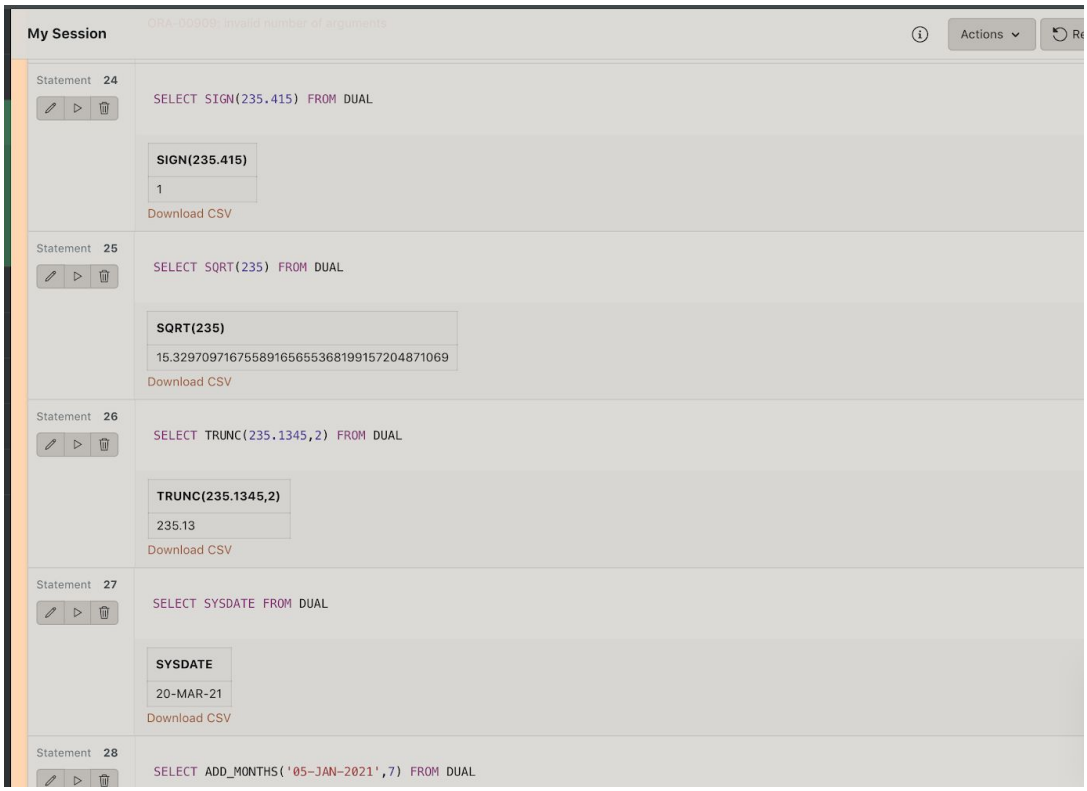



My Session
Actions
Reset Session
Save
Statement 5
SELECT LPAD('SQL is FUN', 20, 'ABC') FROM DUAL
LPAD('SQLISFUN',20,'ABC')
ABCABCABCASQL is FUN
Download CSV
Statement 6
SELECT LTRIM(' SQL is FUN') FROM DUAL
LTRIM('SQLISFUN')
SQL is FUN
Download CSV
Statement 7
SELECT RPAD('SQL is FUN', 10, 'ABC') FROM DUAL
RPAD('SQLISFUN',10,'ABC')
SQL is FUN
Download CSV
Statement 8
SELECT RTRIM('SQL is FUN ') FROM DUAL
RTRIM('SQLISFUN')
SQL is FUN
Download CSV
Statement 9
SELECT REPLACE('SQL is FUN', 'SQL', 'HTML') FROM DUAL


My Session
Actions
Statement 10
SELECT SUBSTR('SQL is Fun', 1, 3) FROM DUAL
SUBSTR('SQLISFUN',1,3)
SQL
Download CSV
Statement 11
SELECT INITCAP('the soap') FROM DUAL
INITCAP('THESOAP')
The Soap
Download CSV
Statement 12
SELECT LOWER('SQL Tutorial is FUN!') FROM DUAL
LOWER('SQLTUTORIALISFUN!')
sql tutorial is fun!
Download CSV
Statement 13
SELECT UPPER('SQL Tutorial is FUN!') FROM DUAL
UPPER('SQLTUTORIALISFUN!')
SQL TUTORIAL IS FUN!
Download CSV
Statement 14
SELECT TRANSLATE('l', 'HELLO', 'Fellow') FROM DUAL


My Session
Actions
Reset Session
Save
SELECT TRANSLATE('l', 'HELLO', 'Fellow') FROM DUAL
TRANSLATE('L','HELLO','FELLOW')
l
Download CSV
Statement 15
SELECT ABS(-243.5) FROM DUAL
ABS(-243.5)
243.5
Download CSV
Statement 16
SELECT CEIL(43.5) FROM DUAL
CEIL(43.5)
44
Download CSV
Statement 17
SELECT COS(43.5) FROM DUAL
COS(43.5)
.885931807269981677569097165713125664094 9
Download CSV
Statement 18
SELECT EXP(3.5) FROM DUAL


My Session
Actions
Reset Session
Save
Statement 19
SELECT FLOOR(43.5) FROM DUAL
FLOOR(43.5)
43
Download CSV
Statement 20
SELECT MOD(43,5) FROM DUAL
MOD(43,5)
3
Download CSV
Statement 21
SELECT POWER(43,5) FROM DUAL
POWER(43,5)
147008443
Download CSV
Statement 22
SELECT ROUND(235.415, 2) FROM DUAL
ROUND(235.415,2)
235.42
Download CSV
Statement 23
SELECT SIGN(235.415, 2) FROM DUAL


My Session
Actions
Statement 24
SELECT SIGN(235.415) FROM DUAL
SIGN(235.415)
1
Download CSV
Statement 25
SELECT SQRT(235) FROM DUAL
SQRT(235)
15.329709716755891656553681991572048710 69
Download CSV
Statement 26
SELECT TRUNC(235.1345,2) FROM DUAL
TRUNC(235.1345,2)
235.13
Download CSV
Statement 27
SELECT SYSDATE FROM DUAL
SYSDATE
20-MAR-21
Download CSV
Statement 28
SELECT ADD_MONTHS('05-JAN-2021',7) FROM DUAL


My Session
Actions
Statement 28
SELECT ADD_MONTHS('05-JAN-2021',7) FROM DUAL
ADD_MONTHS('05-JAN-2021',7)
05-AUG-21
Download CSV
Statement 29
SELECT LAST_DAY('05-JAN-2021') FROM DUAL
LAST_DAY('05-JAN-2021')
31-JAN-21
Download CSV
Statement 30
SELECT MONTHS_BETWEEN('05-JAN-2022', ' 12-AUG-2021') FROM DUAL
MONTHS_BETWEEN('05-JAN-2022','12-AUG-2021')
4.774193548387096774193548387096774193 55
Download CSV
Statement 31
SELECT NEXT_DAY('02-FEB-2021','TUESDAY') FROM DUAL
NEXT_DAY('02-FEB-2021','TUESDAY')
09-FEB-21
Download CSV
Statement 32
SELECT GREATEST(31, 122, 34, 8, 25) FROM DUAL

Statement 31

```
SELECT NEXT_DAY('02-FEB-2021','TUESDAY') FROM DUAL
```

NEXT_DAY('02-FEB-2021','TUESDAY')
09-FEB-21

Download CSV

Statement 32

```
SELECT GREATEST(31, 122, 34, 8, 25) FROM DUAL
```

GREATEST(31,122,34,8,25)
122

Download CSV

Statement 33

```
SELECT LEAST(31, 122, 34, 8, 25) FROM DUAL
```

LEAST(31,122,34,8,25)
8

Download CSV

Thank you...

Harsh Kashyap