

Name: Samriddhi Verma

Reg. No.: 16BCE1375



# VIT<sup>®</sup>

## Vellore Institute of Technology

(Deemed to be University under section 3 of UGC Act, 1956)

Programme	:	<b>B.Tech - CSE</b>	Semester	:	<b>Winter 18 - 19</b>
Course	:	<b>Database Management Systems (Embedded Lab)</b>	Code	:	<b>CSE2004</b>
Faculty	:	<b>Prof. A. Vijayalakshmi Prof. M. Premalatha</b>	Slot	:	<b>L3 + L4</b>

**Ex. No. 6**

**18/02/19**

### SQL – Date Functions

#### 1. Create table fleet\_header and insert the following values:

fleet_id	day	route_id	cat_code
01	10-apr-96	101	01
02	10-apr-96	101	01
03	10-apr-96	101	01
04	10-apr-96	102	02
05	10-apr-96	102	03
06	10-apr-96	103	04

```
SQL> create table fleet_header(fleet_id varchar(5),day date,route_id varchar(5),
```

```
cat_code varchar(5),constraint pk_fleet primary key(fleet_id));
```

Table created.

```
SQL> insert into fleet_header values('&fleet_id','&day','&route_id','&cat_code');
```

Enter value for fleet\_id: 01

Enter value for day: 10-apr-1996

Enter value for route\_id: 101

Enter value for cat\_code: 01

```
old 1: insert into fleet_header values('&fleet_id','&day','&route_id','&cat_code')
```

Name: Samriddhi Verma

Reg. No.: 16BCE1375

new 1: insert into fleet\_header values('01','10-apr-1996','101','01')

1 row created.

SQL> /

Enter value for fleet\_id: 02

Enter value for day: 10-apr-1996

Enter value for route\_id: 101

Enter value for cat\_code: 01

old 1: insert into fleet\_header values('&fleet\_id','&day','&route\_id','&cat\_code')

new 1: insert into fleet\_header values('02','10-apr-1996','101','01')

1 row created.

SQL> /

Enter value for fleet\_id: 03

Enter value for day: 10-apr-1996

Enter value for route\_id: 101

Enter value for cat\_code: 01

old 1: insert into fleet\_header values('&fleet\_id','&day','&route\_id','&cat\_code')

new 1: insert into fleet\_header values('03','10-apr-1996','101','01')

1 row created.

SQL> /

Enter value for fleet\_id: 04

Enter value for day: 10-apr-1996

Enter value for route\_id: 102

Enter value for cat\_code: 02

old 1: insert into fleet\_header values('&fleet\_id','&day','&route\_id','&cat\_code')

new 1: insert into fleet\_header values('04','10-apr-1996','102','02')

1 row created.

Name: Samriddhi Verma

Reg. No.: 16BCE1375

SQL> /

Enter value for fleet\_id: 05

Enter value for day: 10-apr-1996

Enter value for route\_id: 102

Enter value for cat\_code: 03

old 1: insert into fleet\_header values('&fleet\_id','&day','&route\_id','&cat\_code')

new 1: insert into fleet\_header values('05','10-apr-1996','102','03')

1 row created.

SQL> /

Enter value for fleet\_id: 06

Enter value for day: 10-apr-1996

Enter value for route\_id: 103

Enter value for cat\_code: 04

old 1: insert into fleet\_header values('&fleet\_id','&day','&route\_id','&cat\_code')

new 1: insert into fleet\_header values('06','10-apr-1996','103','04')

1 row created.

SQL> select \* from fleet\_header;

FLEET DAY      ROUTE CAT\_C

-----

01 10-APR-96 101 01

02 10-APR-96 101 01

03 10-APR-96 101 01

04 10-APR-96 102 02

05 10-APR-96 102 03

06 10-APR-96 103 04

6 rows selected.

Name: Samriddhi Verma

Reg. No.: 16BCE1375

**2. Create table ticket\_header and insert the following values:**

**ticket\_header(fleet\_id, ticket\_no, doi, dot, origin, destination, No\_of\_people, total fare, route\_id)**

fleet_id	ticket_no	doi	dot	origin
01	01	10-apr-96	10-may-96	madras
02	02	12-apr-96	05-may-96	madurai
03	03	21-apr-96	15-may-96	bangalore
04	04	25-apr-96	25-may-96	hyderabad
05	05	30-apr-96	30-may-96	madras

destination	No_of_people	total fare	route_id
madurai	1	60	101
madras	2	60	102
madras	4	400	101
madras	10	500	103
cochin	2	141	103

```
SQL> create table ticket_header(fleet_id varchar(5),ticket_no varchar(5),doi date,dot date, origin
varchar(10),destination varchar(10),no_of_people number(2),total_fare number(5),route_id
varchar(5),constraint pk_tno primary key(ticket_no),constraint fk_fleet foreign key(fleet_id) references
fleet_header);
```

Table created.

```
SQL> insert into ticket_header
values('&fleet_id','&ticket_no','&doi','&dot','&origin','&destination','&no_of_people','&total_fare','&route
_id');
```

Enter value for fleet\_id: 01

Enter value for ticket\_no: 01

Enter value for doi: 10-apr-1996

Enter value for dot: 10-may-1996

Enter value for origin: madras

Enter value for destination: madurai

Enter value for no\_of\_people: 1

Enter value for total\_fare: 60

Enter value for route\_id: 101

Name: Samriddhi Verma

Reg. No.: 16BCE1375

```
old 1: insert into ticket_header values('&fleet_id','&ticket_no','&doi','&dot',
,&origin','&destination','&no_of_people','&total_fare','&route_id')
```

```
new 1: insert into ticket_header values('01','01','10-apr-1996','10-may-1996',
'madras','madurai','1','60','101')
```

1 row created.

SQL> /

Enter value for fleet\_id: 02

Enter value for ticket\_no: 02

Enter value for doi: 12-apr-1996

Enter value for dot: 05-may-1996

Enter value for origin: madurai

Enter value for destination: madras

Enter value for no\_of\_people: 2

Enter value for total\_fare: 60

Enter value for route\_id: 102

```
old 1: insert into ticket_header
values('&fleet_id','&ticket_no','&doi','&dot','&origin','&destination','&no_of_people','&total_fare','&route
_id')
```

```
new 1: insert into ticket_header values('02','02','12-apr-1996','05-may-
1996','madurai','madras','2','60','102')
```

1 row created.

SQL> /

Enter value for fleet\_id: 03

Enter value for ticket\_no: 03

Enter value for doi: 21-apr-1996

Name: Samriddhi Verma

Reg. No.: 16BCE1375

Enter value for dot: 15-may-1996

Enter value for origin: banglore

Enter value for destination: madras

Enter value for no\_of\_people: 4

Enter value for total\_fare: 400

Enter value for route\_id: 101

old 1: insert into ticket\_header

values('&fleet\_id','&ticket\_no','&doi','&dot','&origin','&destination','&no\_of\_people','&total\_fare','&route\_id')

new 1: insert into ticket\_header values('03','03','21-apr-1996','15-may-1996','banglore','madras','4','400','101')

1 row created.

SQL> /

Enter value for fleet\_id: 04

Enter value for ticket\_no: -4

Enter value for doi: 25-apr-1996

Enter value for dot: 25-may-1996

Enter value for origin: hyderabad

Enter value for destination: madras

Enter value for no\_of\_people: 10

Enter value for total\_fare: 500

Enter value for route\_id: 103

old 1: insert into ticket\_header

values('&fleet\_id','&ticket\_no','&doi','&dot','&origin','&destination','&no\_of\_people','&total\_fare','&route\_id')

new 1: insert into ticket\_header values('04','-4','25-apr-1996','25-may-1996','hyderabad','madras','10','500','103')

Name: Samriddhi Verma

Reg. No.: 16BCE1375

1 row created.

SQL> /

Enter value for fleet\_id: 05

Enter value for ticket\_no: 05

Enter value for doi: 30-apr-1996

Enter value for dot: 30-may-1996

Enter value for origin: madras

Enter value for destination: cochin

Enter value for no\_of\_people: 2

Enter value for total\_fare: 141

Enter value for route\_id: 103

old 1: insert into ticket\_header  
values('&fleet\_id','&ticket\_no','&doi','&dot','&origin','&destination','&no\_of\_people','&total\_fare','&route  
\_id')

new 1: insert into ticket\_header values('05','05','30-apr-1996','30-may-  
1996','madras','cochin','2','141','103')

1 row created.

Name: Samriddhi Verma

Reg. No.: 16BCE1375

**3. Create table ticket\_detail and insert the following values:**

<b>ticket no</b>	<b>name</b>	<b>sex</b>	<b>age</b>	<b>fare</b>
<b>01</b>	<b>charu</b>	<b>f</b>	<b>24</b>	<b>124.000</b>
<b>01</b>	<b>latha</b>	<b>f</b>	<b>10</b>	<b>115.550</b>
<b>02</b>	<b>anand</b>	<b>m</b>	<b>28</b>	<b>107.800</b>
<b>02</b>	<b>gautham</b>	<b>m</b>	<b>28</b>	<b>216.000</b>
<b>02</b>	<b>bala</b>	<b>m</b>	<b>9</b>	<b>117.650</b>
<b>05</b>	<b>sandeep</b>	<b>m</b>	<b>30</b>	<b>118.000</b>

```
SQL> create table ticket_detail(ticket_no varchar(5),name varchar(10),sex varchar(5),age number(5),fare
number(8,4));
```

Table created.

```
SQL> alter table ticket_detail add constraint fk_tno foreign key(ticket_no) references ticket_header;
```

```
SQL> insert into ticket_detail values('&ticket_no','&name','&sex','&age','&fare');
```

Enter value for ticket\_no: 01

Enter value for name: charu

Enter value for sex: f

Enter value for age: 24

Enter value for fare: 124.000

```
old 1: insert into ticket_detail values('&ticket_no','&name','&sex','&age','&fare')
```

```
new 1: insert into ticket_detail values('01','charu','f','24','124.000')
```

1 row created.

```
SQL> /
```

Enter value for ticket\_no: 01

Enter value for name: latha

Enter value for sex: f

Enter value for age: 10

Enter value for fare: 115.550

```
old 1: insert into ticket_detail values('&ticket_no','&name','&sex','&age','&fare')
```

```
new 1: insert into ticket_detail values('01','latha','f','10','115.550')
```



Name: Samriddhi Verma

Reg. No.: 16BCE1375

1 row created.

SQL> /

Enter value for ticket\_no: 02

Enter value for name: anand

Enter value for sex: m

Enter value for age: 28

Enter value for fare: 107.800

old 1: insert into ticket\_detail values('&ticket\_no','&name','&sex','&age','&fare')

new 1: insert into ticket\_detail values('02','anand','m','28','107.800')

1 row created.

SQL> /

Enter value for ticket\_no: 02

Enter value for name: gautham

Enter value for sex: m

Enter value for age: 28

Enter value for fare: 216.000

old 1: insert into ticket\_detail values('&ticket\_no','&name','&sex','&age','&fare')

new 1: insert into ticket\_detail values('02','gautham','m','28','216.000')

1 row created.

SQL> /

Enter value for ticket\_no: 02

Enter value for name: bala

Enter value for sex: m

Enter value for age: 9

Enter value for fare: 117.650

old 1: insert into ticket\_detail values('&ticket\_no','&name','&sex','&age','&fare')

Name: Samriddhi Verma

Reg. No.: 16BCE1375

```
new 1: insert into ticket_detail values('02','bala','m','9','117.650')
```

1 row created.

```
SQL> /
```

Enter value for ticket\_no: 05

Enter value for name: sandeep

Enter value for sex: m

Enter value for age: 30

Enter value for fare: 118.000

```
old 1: insert into ticket_detail values('&ticket_no','&name','&sex','&age','&fare')
```

```
new 1: insert into ticket_detail values('05','sandeep','m','30','118.000')
```

1 row created.

#### **4. Display the date two months after the date of issue of the ticket.**

```
SQL> select add_months(doi,2) from ticket_header;
```

ADD\_MONTH

-----

10-JUN-96

12-JUN-96

21-JUN-96

25-JUN-96

30-JUN-96

Name: Samriddhi Verma

Reg. No.: 16BCE1375

**5. Display the last date of the month in the date of travel.**

SQL> select last\_day (dot) from ticket\_header;

LAST\_DAY(  
-----

31-MAY-96

31-MAY-96

31-MAY-96

31-MAY-96

31-MAY-96

**6. Display the months between the date of travel and the date of issue.**

SQL> select months\_between (dot,doi) from ticket\_header;

MONTHS\_BETWEEN(DOT,DOI)  
-----

1

.774193548

.806451613

1

1

Name: Samriddhi Verma

Reg. No.: 16BCE1375

**7. Display the next occurrence of Friday to the date of travel.**

```
SQL> select next_day(dot,'friday') from ticket_header;
```

```
NEXT_DAY(
```

```
-----
```

```
17-MAY-96
```

```
10-MAY-96
```

```
17-MAY-96
```

```
31-MAY-96
```

```
31-MAY-96
```

**8.**

**A. Display the rounded date in the year format from the day in the fleet header.**

```
SQL> select round(to_date(day,'dd-mm-yyyy'),'year')from fleet_header;
```

```
ROUND(TO_
```

```
-----
```

```
01-JAN-96
```

```
01-JAN-96
```

```
01-JAN-96
```

```
01-JAN-96
```

```
01-JAN-96
```

```
01-JAN-96
```

Name: Samriddhi Verma

Reg. No.: 16BCE1375

**B. Display the rounded date in the month format from the day in the fleet header.**

```
SQL> select round(to_date(day,'dd-mm-yyyy'),'month')from fleet_header;
```

```
ROUND(TO_
```

```
-----
```

```
01-APR-96
```

```
01-APR-96
```

```
01-APR-96
```

```
01-APR-96
```

```
01-APR-96
```

```
01-APR-96
```

```
6 rows selected.
```

**C. Display the rounded date in the day format from the day in the fleet header.**

```
SQL> select round(to_date(day,'dd-mm-yyyy'),'day')from fleet_header;
```

```
ROUND(TO_
```

```
-----
```

```
10-APR-96
```

```
10-APR-96
```

```
10-APR-96
```

```
10-APR-96
```

```
10-APR-96
```

```
10-APR-96
```

```
6 rows selected.
```

Name: Samriddhi Verma

Reg. No.: 16BCE1375

**9. Display the date truncated upto the day, month, year from the day in fleet header.**

```
SQL> select trunc(day,'year')from fleet_header;
```

```
TRUNC(DAY
```

```
-----
```

```
01-JAN-96
```

```
01-JAN-96
```

```
01-JAN-96
```

```
01-JAN-96
```

```
01-JAN-96
```

```
01-JAN-96
```

```
6 rows selected.
```

```
SQL> select trunc(day,'month')from fleet_header;
```

```
TRUNC(DAY
```

```
-----
```

```
01-APR-96
```

```
01-APR-96
```

```
01-APR-96
```

```
01-APR-96
```

```
01-APR-96
```

```
01-APR-96
```

```
6 rows selected.
```

```
SQL> select trunc(day,'day')from fleet_header;
```

```
TRUNC(DAY
```

```
-----
```

```
07-APR-96
```

Name: Samriddhi Verma

Reg. No.: 16BCE1375

07-APR-96

07-APR-96

07-APR-96

07-APR-96

07-APR-96

6 rows selected.

**10. Display the days between the date of issue and the date of travel.**

SQL> select to\_date(dot)-to\_date(doi) from ticket\_header;

TO\_DATE(DOT)-TO\_DATE(DOI)

-----

30

23

24

30

30

**11. Display the date 31 day from the day.**

SQL> select day + interval '31' day from fleet\_header;

DAY+INTER

-----

11-MAY-96

11-MAY-96

11-MAY-96

11-MAY-96

11-MAY-96

11-MAY-96

Name: Samriddhi Verma

Reg. No.: 16BCE1375

**12. Display the date 60 days before the day.**

SQL> select day + interval '-60' day from fleet\_header;

DAY+INTER

-----

10-FEB-96

10-FEB-96

10-FEB-96

10-FEB-96

10-FEB-96

10-FEB-96

6 rows selected.

**13. Convert the first letter of name into capitals.**

SQL> select initcap(name) from ticket\_detail;

INITCAP(NAME)

-----

Charu

Latha

Anand

Gautham

Bala

Sandeep

6 rows selected.

**14. Convert names into the upper case.**

SQL> select upper(name) from ticket\_detail;

UPPER(NAME)



Name: Samriddhi Verma

Reg. No.: 16BCE1375

-----

CHARU

LATHA

ANAND

GAUTHAM

BALA

SANDEEP

6 rows selected.

**15. Convert all the place names into lower case.**

SQL> select lower(origin) from ticket\_header;

LOWER(ORIG

-----

madras

madurai

banglore

hyderabad

madras

SQL> select lower(destination) from ticket\_header;

LOWER(DEST

-----

madurai

madras

madras

madras

cochin

Name: Samriddhi Verma

Reg. No.: 16BCE1375

**16. Display the first three characters of the place name where the origin is Bangalore.**

```
SQL> select substr(origin,1,3) from ticket_header where origin='banglore';
```

SUB

---

ban

**17. Display the last three character of the place name where the origin is Hyderabad.**

```
SQL> select substr(origin,-3) from ticket_header where origin='hyderabad';
```

SUB

---

bad

**18. Display only those destination place names that begin with 'm' and replace 'm' with 'v'.**

```
SQL> select replace(destination,'m','v') from ticket_header;
```

REPLACE(DESTINATION)

-----

vadurai

vadras

vadras

vadras

cochin

**19. Display only 3 characters from the third character in the names of the traveler.**

```
SQL> select substr(name,3,3) from ticket_detail;
```

SUB

Name: Samriddhi Verma

Reg. No.: 16BCE1375

---

aru

tha

and

uth

la

nde

6 rows selected.

**20. Replace the “as” present in the place name with ‘e’.**

SQL> select replace(destination,'as','e') from ticket\_header;

REPLACE(DE

-----

madurai

madre

madre

madre

cochin

SQL> select replace(origin,'as','e') from ticket\_header;

REPLACE(OR

Name: Samriddhi Verma

Reg. No.: 16BCE1375

-----

madre

madurai

banglore

hyderabad

madre

**21. Display the rounded value of the total fare upto 2 character.**

SQL> select fare,round(fare,2) from ticket\_detail;

FARE ROUND(FARE,2)

-----

124	124
115.55	115.55
107.8	107.8
216	216
117.65	117.65
118	118

6 rows selected.

**22. Display the total fare such that it contains no decimal places.**

SQL> select fare,round(fare,0) from ticket\_detail;

FARE ROUND(FARE,0)

Name: Samriddhi Verma

Reg. No.: 16BCE1375

-----

124	124
115.55	116
107.8	108
216	216
117.65	118
118	118

6 rows selected.

**23. Display the system date in the format mentioned below “27<sup>th</sup> of October 1996”.**

SQL> select to\_char(sysdate,'ddth mm yyyy') from dual;

TO\_CHAR(SYSD

-----

19th 02 2019

**24. Display “20- September-1996” in the date format.**

SQL> select to\_date('20-september-1996','dd month yyyy') from dual;

TO\_DATE('

-----

20-SEP-96