**Sysdate**

It will give the current date

Select sysdate from dual;

Select trunc(sysdate) from dual;

Select to\_Char(sysdate) from dual;

**Sysdate**

**06-SEP-18**

All three will give same result.

**To display along with time**

Select to\_Char(sysdate,’DD-MM-YY HH:MI:SS’) from dual;

06-09-18 03:21:29

Select to\_date(sysdate,’DD-MM-YY HH:MI:SS’) from dual;

**Sysdate**

**06-SEP-18**

Select **systimestamp** from dual;

It will display time along with meridian

**Extract**

The year ,month or day components of a DATE date can be found using extract.

**To extract year**

Select extract(year from sysdate) ,extract (year from to\_Date(‘2018-AUG-25’,’YYYY-MON-DD’)) as year,

Extract(year from date ‘2018-08-25’ ) as year1

From dual;

Select extract(year from alert\_Date) ,alert\_date from alerts;

**To extract day**

Select extract(day from sysdate) ,extract (day from to\_Date(‘2018-AUG-25’,’YYYY-MON-DD’)) as year,

Extract(day from date ‘2018-08-25’ ) as year1

From dual;

Select extract(day from alert\_Date) ,alert\_date from alerts;

**To extract month**

Select extract(month from sysdate) ,extract (month from to\_Date(‘2018-AUG-25’,’YYYY-MON-DD’)) as year,

Extract(month from date ‘2018-08-25’ ) as year1

From dual;

Select extract(month from alert\_Date) ,alert\_date from alerts;

**To extract min,hour and second**

Select extract(minute from case(sysdate as timestamp)) as minute,

extract(hour from case(sysdate as timestamp)) as hour,

extract(second from case(sysdate as timestamp)) as second

from dual;

**MONTHS\_BETWEEN**

Calculates the months between two dates.

Select months\_between(sysdate,alert\_Date) months from alerts;

We can round or trunc it as below

Select round(months\_between(sysdate,alert\_Date)) months from alerts;

We can find year by diving it by 12

Select round(months\_between(sysdate,alert\_Date)/12) year from alerts;

Months\_between assuming 31 days per month when there can be fewer days per month then result in different values spanning the boundaries

Select round(months\_between(sysdate,alert\_Date – interval ‘1’ DAY)) year from alerts;

To display date without timestamp

Select to\_Date(sysdate,’YYYY-DD-MM’) from dual;

To display along with timestamp

Select to\_Date(sysdate,’YYYY-DD-MM HH24:MI:SS’) from dual;

**Converting Dates to a string**

Create table test\_Date(date\_Value Date);

Insert into test\_date values(sysdate);

Insert into test\_date values(timestamp ‘2018-09-04 08:00:00);

Insert into test\_date values(to\_Date(‘2018-09-05’,’YYYY-MM-DD’));

Select to\_Char(date\_Value,’YYYY-MM-DD HH24:MI:SS’) result from test\_Date;

Result

2018-09-06 09:09:20

2018-09-04 08:00:00

2018-09-05 00:00:00

Select to\_char(date\_value,’FMMonth d yyyy, hh12:mi:ss AM’,’NLS\_DATE\_LANGUAGE=English’ ) AS formatted\_date

From test\_date;

Formatted\_date

September 4 2018, 12:0:0 AM

September 5 2018, 09:09:00 AM

September 3 2019, 08:00:00 AM

**Date datatype does not handle time zones or changes in daylight savings time.**

It can be converted to current timezone like below

Select **from\_tz**(cast(to\_date(sysdate,’YYYY-MM-DD HH24:MI:SS’) as timestamp ),’**UTC**’) as local\_time

From dual;

***Output***

***18-SEP-07 12:00:00:000000000 AM UTC***

Select **from\_tz**(cast(to\_date(sysdate,’YYYY-MM-DD HH24:MI:SS’) as timestamp ),’**UTC**’) as local\_time

From dual;

*Output*

***17-SEP-07 11:52:00:000000000 AM PST***

We can change by altering session

**ALTER session SET TIME\_ZONE=’PST’;**

We can get date format of session parameter

**Select value from nls\_session\_parameters where parameter=’NLS\_DATE\_FORMAT’;**

**We can set this value within current session**

**Alter session set nls\_date\_format=’YYY-MM-DD HH24:MI:SS’;**

**Working with dates**

To get next day

Select to\_char(sysdate+1,’YYYY-MM-DD’) from dual;

2018-09-08

To get previous day

Select to\_char(sysdate-1,’YYYY-MM-DD’) from dual;

2018-09-06

To add 5 days to the current date

Select to\_char(sysdate+5,’YYYY-MM-DD’) from dual;

2018-09-12

To add 5 hours to current date

Select to\_char(sysdate+(5/24),’YYYY-MM-DD HH24:MI:SS’) from dual;

To add 10min to the current date

Select to\_char(sysdate+(10/1440),’YYYY-MM-DD HH24:MI:SS’) from dual;

To add 7 seconds to the current date

Select to\_char(sysdate+(7/86400),’YYYY-MM-DD HH24:MI:SS’) from dual;

To select rows where hire\_Date is 30 days ago or more

Select \* from emp where hiredate<sysdate-30;

To select rows where last\_updated coumn in last one hour

Select \* from alerts where last\_update\_date>= sysdate-(1/24);

**ADD\_MONTHS**

Add\_months add specific number (n) of months to date. N can be positive or negative

Select add\_months(sysdate,-1) prev\_month,sysdate as current\_month,add\_months(sysdate,1) as next\_month

From dual;

**LAST\_DAY**

Returns the last day in the month of the specified date

Select sysdate,last\_day(sydate) last\_day\_curr\_month,last\_Day(sysdate)+1 as first\_day\_next\_month

From dual;

Number of days until this month end

Select last\_day(sysdate)-sysdate days\_left from dual;

**NEXT\_DAY**

Returns the date of next weekend specified that is later than the date.

Select next\_Day(sysdate,’Monday’) from dual;

**ROUND** – returns the date with time rounded to midnight in the default.

Select round(to\_Date(’01-SEP-14’),’YEAR’) from dual;

01-JAN-2019

**TRUNC** – truncates the specified date of its time portion according to the format provided.

Select round(to\_Date(’01-SEP-14’),’YEAR’) from dual;

01-JAN-2018.