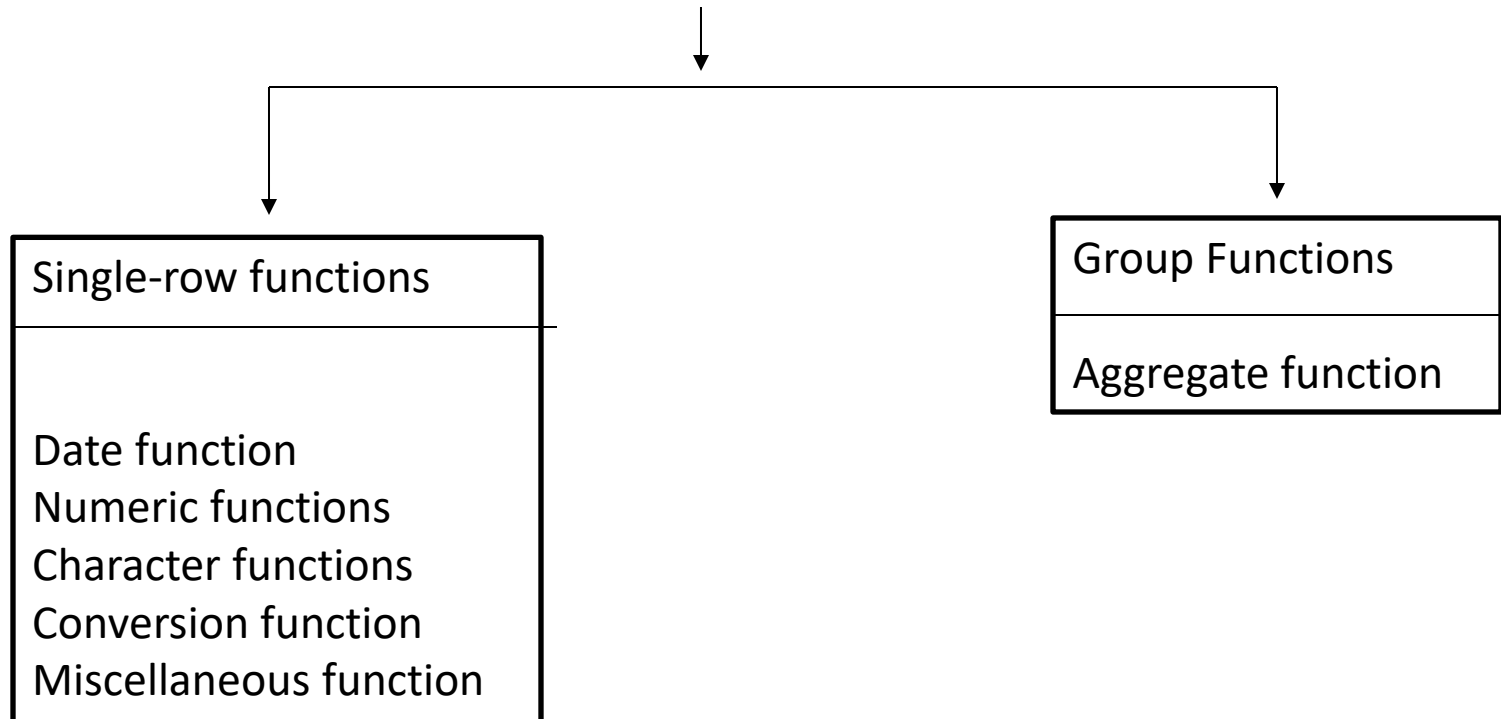


SQL * PLUS FUNCTIONS

SQL Functions



Aggregate functions

- It is used for grouping the data.
- It cannot be combined with another aggregate functions and it cannot be used with where clause.
- Sum()
- Avg()
- Max()
- Min()
- Count()

Aggregate functions

Syntax	Description
count (*), count (column name), count (distinct column name)	Returns number of rows
min (column name)	Min value in the column
max (column name)	Max value in the column
avg (column name)	Avg value in the column
sum (column name)	Sum of column values
stdev(column name)	Standard deviation value
variance(column name)	Variance value

Aggregate functions

- `Select sum(sal) from emp;`
 - `Select avg(sal) from emp;`
 - `Select max(sal) from emp;`
 - `Select min(sal) from emp;`
 - `Select count(sal) from emp;`
 - `Select count(comm) from emp;`
- (it will count the number of non-empty values)

Date functions

Syntax	Description
add_months(date,no. of months)	<p>Return the date after adding the number of months</p> <p>Select add_months(doj,36) from emp;</p>
months_between (date1,date2)	<p>Returns the numeric value of the difference between the months.</p> <p>select months_between('01-may-83','01-jan-83') from dual;</p> <p>MONTHS_BETWEEN('01-MAY-83','01-JAN-83')</p> <p>-----</p> <p>4</p>
round(date, [format])	<p>Format – ‘day’, ‘month’, ‘year’ rounded to the nearest format specified</p>

Syntax	Description
next_day(date, day)	<p>Returns the next date of the day The next occurrence of Friday to the dob of an employee.</p> <pre>SELECT ssn, NEXT_DAY(dob, 'fri') FROM employee;</pre>
trunc(date, [format])	<p>Format – ‘day’, ‘month’ , ‘year’ Day – previous nearest Sunday Month – start date of the month Year – start date of the year</p>
greatest(date1, date2,...)	Returns the latest date

Numeric functions

syntax	Description
abs ()	Returns the absolute value
ceil ()	Rounds the argument
cos ()	Cosine value of argument
cosh()	Hyperbolic cos
exp ()	Exponent value
floor()	Truncated value
power (m,n)	N raised to m
mod (m,n)	Remainder of m / n
round (m,n)	Rounds m's decimal places to n
trunc (m,n)	Truncates m's decimal places to n
sqrt (m)	Square root value

Character functions

syntax	Description
initcap (char)	Changes first letter to capital
lower (char)	Changes to lower case
upper (char)	Changes to upper case
ltrim (char, set)	Removes the set from left of char
rtrim (char, set)	Removes the set from right of char
replace(char, search string, replace string)	Replaces the search string to new
substring(char, m , n)	Returns chars from m to n length
lpad(char, length, special char)	Pads special char to left of char to Max of length
rpadd(char, length, special char)	Pads special char to right of char to Max of length
length(char)	Length of string
 	Concatenation of strings

The Project names in Upper case.

```
SELECT UPPER(name) FROM project;
```

Department names with left padded stars.

```
SELECT LPAD(name, 15, '*') department FROM department;
```

The first five characters of employee first names.

```
SELECT SUBSTR(fname, 0, 5) FROM employee;
```

The length of longest department name.

```
SELECT MAX(LENGTH(name)) FROM department;
```

Conversion Functions

syntax	Description
<code>to_char(date, format)</code>	<p>Converts date to specified format string</p> <pre>select to_char(sysdate,'dd/mm/yy') from dual;</pre> <p>TO_CHAR ----- 19/12/02</p> <p>Display the month of births of all employees.</p> <pre>SELECT ssn, TO_CHAR(dob, 'mon') AS "month of birth" FROM employee;</pre> <p>-- double quotes needed for alias name when it contains spaces.</p> <p>Dr. Parimala M</p>

syntax	Description
<code>to_date(char,format)</code>	<p>Converts string to date format</p> <pre>select to_date ('03/mar/03') from dual;</pre> <pre>TO_DATE(' ----- 03-MAR-03</pre>