

Aggregate Functions

Aggregate Functions

to specify **mathematical aggregate functions** on collections of values from the database.

Examples of such functions include retrieving the **average or total salary** of all employees or **the total number of employee tuples**.

These functions are used in simple statistical queries that summarize information from the database tuples.

Common functions applied to collections of numeric values include **SUM, AVERAGE, MAXIMUM, and MINIMUM**. The **COUNT** function is used for counting tuples or values.

Student

Sname	RollNo	ClassName	Admn No	Age	Mark	Family Income(L)
Anwar	48	C4b	9875	18	34	7
Deon	22	c4A	8469	18	49	6
Gautham	19	C4b	9854	20	45	8
Jabira	33	c4A	7894	19	48	5

<grouping attributes> ⋈ <function list> (R)

Example 1 :

- $\rho_{R(\text{Classname}, \text{No_of_students}, \text{Average_mark})} (\text{Classname} \bowtie \text{COUNT AdmnNo}, \text{AVERAGE Mark} (\text{Student}))$

Classname	No_of_student	Average Mark
c4A	2	48.5
C4b	2	39.5

Example 2 :

(Classname ⋈_{COUNT AdmnNo, AVERAGE Mark} (Student))

Classname	Count_Admnno	Average Mark
c4A	2	48.5
C4b	2	39.5

Example 3 :

§ COUNT AdmnNo, AVERAGE Mark (Student)

Count_Admnno	Average Mark
4	44