

Ex. No : 7

Implementation of various aggregate functions in SQL

AIM

Create the tables with the following fields

Faculty (FacultyCode, FacultyName)

Subject (SubjectCode, SubjectName, MaxMark, FacultyCode)

Student (StudentCode, StudentName, DOB, StudentsBranch (CS/EC/EE/ME), AdmissionDate)

M_Mark (StudentCode, SubjectCode, Mark)

- Create Table **Faculty** (F_Code int Primary Key, F_Name

```
mysql> select * from Faculty;
```

F_Code	F_Name
101	Silgy
102	Bindu
103	Vidhya
104	Sangeetha
105	Jayakumar

Create Table **Subject** and insert below values.

```
mysql> select * from Subject;
```

subjectcode	subjectname	maxmark	faculty_code
501	Maths	150	101
502	FCA	100	102
503	DBMS	100	105
504	OS	75	103
505	DC	200	104
508	DBMS Lab	1001	103

Create Table **Student** and insert below values.

```
mysql> select * from Student;
```

studentcode	studentname	dob	studentbranch	adate
-------------	-------------	-----	---------------	-------

1	Amitha	1987-01-12	cs	2000-06-01
10	fahan	1988-03-20	cs	2000-06-05
11	ginu	1988-04-13	cs	2000-06-10
12	hamna	1985-05-14	cs	2000-06-09
2	vaidehi	1988-12-25	cs	2000-06-01
3	varun	1988-10-02	cs	2000-06-02
4	turner	1988-09-05	cs	2000-06-02
5	vani	1988-07-20	cs	2000-06-05
6	binu	1988-08-13	cs	2000-06-10
7	chitra	1986-11-14	cs	2000-06-09
8	dona	1991-12-02	cs	2000-06-02
9	elana	1990-02-05	cs	2000-06-02

Create Table **M_mark** and insert below values.

```
mysql> select * from M_mark;
```

studentcode	subjectcode	mark
1	501	40
1	502	70
1	503	50
1	504	80
1	505	40
1	508	70
10	501	50
10	504	1
10	505	74
11	501	60
11	508	98
12	501	40
12	503	67
2	501	90
2	502	89
2	503	77
2	504	95
2	505	74
2	508	98
3	501	40
3	502	43
3	503	40
3	504	40

3	505	40
3	508	35
4	501	50
5	501	60
5	502	43
5	504	23
6	501	67
6	502	43
6	503	40
6	504	23
7	501	23
7	504	40
7	505	42
8	501	43
8	505	40
9	501	42
9	504	1
9	508	35

Do the following queries

1) Display the number of faculties.

```
+-----+
| No of Faculty = |
+-----+
|           5 |
+-----+
```

2) Display the total mark for each student.

```
+-----+-----+
| studentname | Total Mark |
+-----+-----+
| Amitha      | 350 |
| fahan       | 125 |
| ginu        | 158 |
| hamna       | 107 |
| vaidehi     | 523 |
| varun       | 238 |
| turner      | 50  |
| vani        | 126 |
| binu        | 173 |
| chitra      | 105 |
```

dona	83
elana	78

3) Display the subject,average mark for each subject.

subjectname	Average mark
Maths	50.42
FCA	57.60
DBMS	54.80
OS	37.88
DC	51.67
DBMS Lab	67.20

4) Display the name of subjects for which atleast one student got below 40%.

subjectname	NO: OF STUDENTS
DBMS Lab	5
DC	6
Maths	8
OS	4

5) Display the name,subject and percentage of mark who got below 40 %.

studentname	subjectname	mark	maxmark	Percentage
Amitha	Maths	40	150	26.67
Amitha	DC	40	200	20.00
Amitha	DBMS Lab	70	1001	6.99
fahan	Maths	50	150	33.33
fahan	OS	1	75	1.33
fahan	DC	74	200	37.00
ginu	DBMS Lab	98	1001	9.79
hamna	Maths	40	150	26.67
vaidehi	DC	74	200	37.00

vaidehi	DBMS Lab	98	1001	9.79
varun	Maths	40	150	26.67
varun	DC	40	200	20.00
varun	DBMS Lab	35	1001	3.50
turner	Maths	50	150	33.33
vani	OS	23	75	30.67
binu	OS	23	75	30.67
chitra	Maths	23	150	15.33
chitra	DC	42	200	21.00
dona	Maths	43	150	28.67
dona	DC	40	200	20.00
elana	Maths	42	150	28.00
elana	OS	1	75	1.33
elana	DBMS Lab	35	1001	3.50

6) Display the faculties and allotted subjects for each faculty

F_name	subjectname
Silgy	Maths
Bindu	FCA
Vidhya	OS
Vidhya	DBMS Lab
Sangeetha	DC
Jayakumar	DBMS

7) Display the name of faculties who take more than one subject.

F_Name
Vidhya

8) Display name,subject,mark, % of mark in ascending order of mark

studentname	subjectname	mark
elana	OS	1
fahan	OS	1

vani	OS	23
chitra	Maths	23
binu	OS	23
elana	DBMS Lab	35
varun	DBMS Lab	35
varun	OS	40
varun	DBMS	40
Amitha	Maths	40
varun	Maths	40
varun	DC	40
binu	DBMS	40
hamna	Maths	40
chitra	OS	40
dona	DC	40
Amitha	DC	40
chitra	DC	42
elana	Maths	42
binu	FCA	43
vani	FCA	43
dona	Maths	43
varun	FCA	43
Amitha	DBMS	50
turner	Maths	50
fahan	Maths	50
vani	Maths	60
ginu	Maths	60
binu	Maths	67
hamna	DBMS	67
Amitha	FCA	70
Amitha	DBMS Lab	70
fahan	DC	74
vaidehi	DC	74
vaidehi	DBMS	77
Amitha	OS	80
vaidehi	FCA	89
vaidehi	Maths	90
vaidehi	OS	95
ginu	DBMS Lab	98
vaidehi	DBMS Lab	98
+-----+-----+-----+		