

## SQL Assignment

1. create database student  
use student;
2. Table Creation

### **Table 1: StudentBasicInformation**

```
create table StudentBasicInformation(  
StudentName varchar(40) ,  
StudentSurname varchar(40),  
StudentRollNo int primary key,  
StudentAddress varchar(70),  
StudentDOB varchar(50),  
StudentFather varchar(40),  
StudentMother varchar(40)  
);
```

### **Table 2: StudentAdmissionPaymentDetails**

```
create table StudentAdmissionPaymentDetails(  
StudentRollNo int primary key,  
AmountPaid float,  
AmountBalance float,  
AmountDueDate varchar(40),  
AmountPenalty float,  
AckNo int(10),  
ModeofPayment varchar(40),  
foreign key(StudentRollNo) references StudentBasicInformation(StudentRollNo)  
);
```

### **Table 3: StudentSubjectInformation**

```
create table StudentSubjectInformation(  
SubjectOpted varchar(50),  
StudentRollNo int primary key,  
SubjectTotalMarks int,  
SubjectObtainedMarks float,
```

StudentMarksPercentage float,  
OptedScholarship varchar(5),  
foreign key(StudentRollNo)  
references StudentBasicInformation(StudentRollNo));

#### **Table 4: SubjectScholarshipInformation**

create table SubjectScholarshipInformation(  
StudentRollNo int primary key,  
ScholarshipName varchar(50),  
ScholarshipDescription varchar(50),  
ScholarshipAmount float,  
ScholarshipCategory varchar(50),  
ScholarshipDuration varchar(50),  
ScholarshipStatus varchar(15),  
foreign key(StudentRollNo)  
references StudentBasicInformation(StudentRollNo));

### **3. Insertion of Records into the tables**

#### **Table 1: StudentBasicInformation**

Insert into StudentBasicInformation values('Arnav','Malhotra',1,'86 , New  
Municipal D S Market, Lodhi Colony', '11/23/1979','Pankaj Malhotra','Shilpa  
Malhotra');

Insert into StudentBasicInformation values('Darshan','Lata',2,'Sec- I I, Bg-146, Salt  
Lake, Sech Bhawan','9/28/1960','Manik Lata','Sunita Lata');

Insert into StudentBasicInformation values('Yasmine','Magar',3,'C 71, Anand  
Nagar, Juhu','8/10/1985','Ram Magar','Mona Magar');

Insert into StudentBasicInformation values('Sahan', 'Shanker', 4,'Milan Takies, S.  
V. Road','11/25/1999','Shyam Shanker','Dolly Shanker');

Insert into StudentBasicInformation values('Priyamkara','Dhar',5,'54 /a, Glamour  
Bldg, Aurther Bunder Road, Colaba','2/10/1998','K V Dhar','Priya Dhar');

Insert into StudentBasicInformation values('Rane','Varghese',6,'I.t.t.s House, Subhash Road','3/21/1996','Sam Varghese','Francy Varghese');

Insert into StudentBasicInformation values('Ankita','Mittal',7,'134 , Patel Inds Estate,Jogeshwari','15/5/1999','Sunil Mittal','Sunita Mittal');

Insert into StudentBasicInformation values('Manu','Dasgupta',8,'145,Nelson Manickam Road','23/8/1995','Ketav Dasgupta','Meghna Dasgupta');

Insert into StudentBasicInformation values('Vivek', 'Bhavnani',9,'J P Villas, Andheri','16/4/2000','Shrey Bhavnani','Sanika Bhavnani');

Insert into StudentBasicInformation values('Gautam','Joshi',10,'AB 767,Mahatama Gandhi Rd','2/5/1999','Ganesh Joshi','Ritu Joshi');

Insert into StudentBasicInformation values('Vinay','Baradia',11,'37st Floor, Gurudwara Bldg','18/10/1998','Ashwin Baradia','Neelam Baradia');

Insert into StudentBasicInformation values('Komal','Chhabra',12,'F-2, Shukla Indl Compd','24/9/199','Anil Chhabra','Niyati Chhabra');

---

## **Table 2: StudentAdmissionPaymentDetails**

Insert into StudentAdmissionPaymentDetails values(1,15000,5000,'5/03/2021',1000,101,'Net Banking');

Insert into StudentAdmissionPaymentDetails values(2,18000,2000,'5/03/2021',1500,201,'Wallet');

Insert into StudentAdmissionPaymentDetails values(3,12000,0,'5/03/2021',0,301,'Cash Payment');

Insert into StudentAdmissionPaymentDetails values(4,10000,500,'5/03/2021',0,401,'Gpay');

Insert into StudentAdmissionPaymentDetails values(5,25000,5000,'5/03/2021',1000,501,'PhonePe');

Insert into StudentAdmissionPaymentDetails values(6,17000,2000,'5/03/2021',1200,601,'Net Banking');

Insert into StudentAdmissionPaymentDetails values(7,12500,1500,'5/03/2021',800,701,'Cash');

Insert into StudentAdmissionPaymentDetails values(8,14000,1200,'5/03/2021',200,801,'Gpay');

Insert into StudentAdmissionPaymentDetails values(9,18000,1500,'5/03/2021',1000,901,'Cash');

Insert into StudentAdmissionPaymentDetails values(10,17000,400,'5/03/2021',100,110,'Net Banking');

Insert into StudentAdmissionPaymentDetails values(11,15000,1000,'5/03/2021',0,111,'Cash');

Insert into StudentAdmissionPaymentDetails values(12,20000,5000,'5/03/2021',2000,112,'Cash');

---

**Table 3: StudentSubjectInformation**

Insert into StudentSubjectInformation values('Computer Networks',1,100,95,95,'No');

Insert into StudentSubjectInformation values('Software Engineering',2,100,92,92,'Yes');

Insert into StudentSubjectInformation values('Data Structures',3,100,94,94,'Yes');

Insert into StudentSubjectInformation values('DBMS',4,100,88,88,'No');

Insert into StudentSubjectInformation values('Computational Mathematics',5,100,97,97,'Yes');

Insert into StudentSubjectInformation values('Social Computing',6,100,91,91,'Yes');

Insert into StudentSubjectInformation values('Data Science',7,100,93,93,'No');

Insert into StudentSubjectInformation values('Intelligent Systems',8,100,90,90,'No');

Insert into StudentSubjectInformation values('Human-Computer Interaction',9,100,87,87,'Yes');

Insert into StudentSubjectInformation values('Visual Computing',10,100,92,92,'Yes');

Insert into StudentSubjectInformation values('Information Security',11,100,85,85,'No');

Insert into StudentSubjectInformation values('Computer Architecture',12,100,95,95,'Yes');

---

#### **Table 4: SubjectScholarshipInformation**

Insert into SubjectScholarshipInformation values(1,'None','None',0,'None',0,'No');

Insert into SubjectScholarshipInformation values(2, 'Hope Scholarship','Awarded for Academic Excellence',3000,'Academic','Throughout','Not Approved');

Insert into SubjectScholarshipInformation values(3,'Sports Scholarship','Awarded for Sports Excellence',2000,'Sports','Throughout','Approved');

Insert into SubjectScholarshipInformation values(4,'No','None',0,'None',0,'No');

Insert into SubjectScholarshipInformation values(5, 'CM Scholarship','Excellence in Computational Mathematics',3500,'Academic','Throughout','Approved' );

Insert into SubjectScholarshipInformation values(6, 'DS Scholarship','Awarded for Academic Excellence in Data Science',5000,'Academic','Throughout','Approved' );

Insert into SubjectScholarshipInformation values(7,'No','None',0,'None',0,'No' );

Insert into SubjectScholarshipInformation values(8,'No','None',0,'None',0,'No' );

Insert into SubjectScholarshipInformation values(9,'HCI Scholarship','Awarded for Academic Excellence in HCI',2500,'Academic','Throughout','Not Approved' );

Insert into SubjectScholarshipInformation values(10,'Sports Scholarship','Awarded for Sports Excellence',2000,'Sports','Throughout','Not Approved' );

Insert into SubjectScholarshipInformation values(11, 'No','None',0,'None',0,'No' );

Insert into SubjectScholarshipInformation values(12, 'Sports Scholarship','Awarded for Sports Excellence',2000,'Sports','Throughout','Pending' );

#### 4. Snap of Tables after Insertion

**Table 1: StudentBasicInformation**

```
mysql> select * from StudentBasicInformation;
```

StudentName	StudentSurname	StudentRollNo	StudentAddress	StudentDOB	StudentFather	StudentMother
Arnav	Malhotra	1	86 , New Municipal D S Market, Lodhi Colony	11/23/1979	Pankaj Malhotra	Shilpa Malhotra
Barshan	Lata	2	Sec- 1 I, Bg-146, Salt Lake, Sech Bhawan	9/28/1968	Manik Lata	Sunika Lata
Yashine	Magar	3	C 71, Anand Nagar, Juhu	8/18/1985	Ran Magar	Mona Magar
Saban	Shanker	4	Milan Takies, S. U. Road	11/25/1999	Shyam Shanker	Dolly Shanker
Priyankara	Dhar	5	54 /a, Glamour Bldg, Aurthur Bunder Road, Colaba	2/18/1998	R U Dhar	Priya Dhar
Rane	Varghese	6	I.t.t.s House, Subhash Road	3/21/1996	San Varghese	Francy Varghese
Ankita	Mittal	7	134 , Patel Inds Estate,Jogeshwari	15/5/1999	Sunil Mittal	Sunika Mittal
Manu	Dasgupta	8	145,Melton Manickan Road	23/8/1995	Metaw Dasgupta	Meyhna Dasgupta
Uivek	Bhavnani	9	J P Villas, Andheri	16/4/2000	Shrey Bhavnani	Sanika Bhavnani
Gautan	Joshi	10	88 767,Mahatana Gandhi Rd	2/5/1999	Ganesh Joshi	Ritu Joshi
Vinay	Baradia	11	27st Floor, Garudwara Bldg	18/10/1998	Ashwin Baradia	Neelam Baradia
Komal	Chhabra	12	F-2, Shukla Indl Compd	0.013400335005025125	Anil Chhabra	Niyati Chhabra

12 rows in set (0.00 sec)

**Table 2: StudentAdmissionPaymentDetails**

```
mysql> select * from StudentAdmissionPaymentDetails;
```

StudentRollNo	AmountPaid	AmountBalance	AmountDueDate	AmountPenalty	AckNo	ModeofPayment
1	15000	5000	5/03/2021	1000	101	Net Banking
2	18000	2000	5/03/2021	1500	201	Wallet
3	12000	0	5/03/2021	0	301	Cash Payment
4	10000	500	5/03/2021	0	401	Gpay
5	25000	5000	5/03/2021	1000	501	PhonePe
6	17000	2000	5/03/2021	1200	601	Net Banking
7	12500	1500	5/03/2021	800	701	Cash
8	14000	1200	5/03/2021	200	801	Gpay
9	18000	1500	5/03/2021	1000	901	Cash
10	17000	400	5/03/2021	100	110	Net Banking
11	15000	1000	5/03/2021	0	111	Cash
12	20000	5000	5/03/2021	2000	112	Cash

12 rows in set (0.00 sec)

**Table 3: StudentSubjectInformation**

```
mysql> select * from StudentSubjectInformation;
```

SubjectOpted	StudentRollNo	SubjectTotalMarks	SubjectObtainedMarks	StudentMarksPercentage	OptedScholarship
Computer Networks	1	100	95	95	No
Software Engineering	2	100	92	92	Yes
Data Structures	3	100	94	94	Yes
DBMS	4	100	88	88	No
Computational Mathematics	5	100	97	97	Yes
Social Computing	6	100	91	91	Yes
Data Science	7	100	93	93	No
Intelligent Systems	8	100	90	90	No
Human-Computer Interaction	9	100	87	87	Yes
Visual Computing	10	100	92	92	Yes
Information Security	11	100	85	85	No
Computer Architecture	12	100	95	95	Yes

12 rows in set (0.00 sec)

**Table 4: SubjectScholarshipInformation**

```
mysql> select * from SubjectScholarshipInformation;
```

StudentRollNo	ScholarshipName	ScholarshipDescription	ScholarshipAmount	ScholarshipCategory	ScholarshipDuration	ScholarshipStat
1	None	None	0	None	0	No
2	Hope Scholarship	Awarded for Academic Excellence	3000	Academic	Throughout	Not Approved
3	Sports Scholarship	Awarded for Sports Excellence	2000	Sports	Throughout	Approved
4	No	None	0	None	0	No
5	CM Scholarship	Excellence in Computational Mathematics	3500	Academic	Throughout	Approved
6	DS Scholarship	Awarded for Academic Excellence in Data Science	5000	Academic	Throughout	Approved
7	No	None	0	None	0	No
8	No	None	0	None	0	No
9	HCI Scholarship	Awarded for Academic Excellence in HCI	2500	Academic	Throughout	Not Approved
10	Sports Scholarship	Awarded for Sports Excellence	2000	Sports	Throughout	Not Approved
11	No	None	0	None	0	No
12	Sports Scholarship	Awarded for Sports Excellence	2000	Sports	Throughout	Pending

12 rows in set (0.00 sec)

## 5. Updating Records

**Table 1: StudentBasicInformation**

Update StudentBasicInformation set StudentAddress="A901,Gala Residence, South Delhi" where StudentRollNo=3

Update StudentBasicInformation set StudentAddress="C-27,Palm Gardens, Paul Street" where StudentRollNo=9;

```
mysql> select * from StudentBasicInformation;
```

StudentName	StudentSurname	StudentRollNo	StudentAddress	StudentDOB	StudentFather	StudentMother
Arnav	Malhotra	1	86 , New Municipal D S Market, Lodhi Colony	11/23/1977	Pankaj Malhotra	Shilpa Malhotra
Barshan	Lata	2	Sec- 1 I, Bg-146, Salt Lake, Sech Bhawan	9/28/1960	Manik Lata	Sunita Lata
Yasmine	Magar	3	A901,Gala Residence, South Delhi	8/10/1985	Ram Magar	Mona Magar
Sahan	Shanker	4	Milan Takies, S. V. Road	11/25/1999	Shyam Shanker	Dolly Shanker
Priyankara	Dhar	5	54 /a, Glamour Bldg, Aurthur Bunder Road, Colaba	2/10/1998	K U Dhar	Priya Dhar
Rane	Varghese	6	1.t.t.s House, Subhash Road	3/21/1996	Sam Varghese	Francy Varghese
Ankita	Mittal	7	134 , Patel Inds Estate,Jogeshwari	15/6/1999	Sunil Mittal	Sunita Mittal
Manu	Dasgupta	8	145,Melton Manickan Road	23/8/1995	Metav Dasgupta	Meghna Dasgupta
Uivek	Bhaunani	9	C-27,Palm Gardens, Paul Street	16/4/2000	Shrey Bhaunani	Sanika Bhaunani
Gautam	Joshi	10	8B 767,Mahatama Gandhi Rd	2/5/1999	Caresh Joshi	Ritu Joshi
Uinav	Baradia	11	37st Floor, Gurudwara Bldg	19/10/1998	Ashwin Baradia	Neelam Baradia
Komal	Chhabra	12	F-2, Shukla Indl Conpd	0.013400135005025125	Anil Chhabra	Niyati Chhabra

12 rows in set (0.00 sec)

**Table 2: StudentAdmissionPaymentDetails**

Update StudentAdmissionPaymentDetails set AmountBalance=500 where StudentRollNo=9;

```
mysql> Update StudentAdmissionPaymentDetails set AmountBalance=500 where StudentRollNo=9;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from StudentAdmissionPaymentDetails;
```

StudentRollNo	AmountPaid	AmountBalance	AmountDueDate	AmountPenalty	AckNo	ModeofPayment
1	15000	5000	5/03/2021	1000	101	Net Banking
2	18000	2000	5/03/2021	1500	201	Wallet
3	12000	0	5/03/2021	0	301	Cash Payment
4	10000	500	5/03/2021	0	401	Gpay
5	25000	5000	5/03/2021	1000	501	PhonePe
6	17000	2000	5/03/2021	1200	601	Net Banking
7	12500	1500	5/03/2021	800	701	Cash
8	14000	1200	5/03/2021	200	801	Gpay
9	18000	500	5/03/2021	1000	901	Cash
10	17000	400	5/03/2021	100	110	Net Banking
11	15000	1000	5/03/2021	0	111	Cash
12	20000	5000	5/03/2021	2000	112	Cash

```
12 rows in set (0.00 sec)
```

**Table 3: StudentSubjectInformation**

Update StudentSubjectInformation set SubjectObtainedMarks=96 where StudentRollNo=12;

```
mysql> Update StudentSubjectInformation set SubjectObtainedMarks=96 where StudentRollNo=12;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from StudentSubjectInformation;
```

SubjectOpted	StudentRollNo	SubjectTotalMarks	SubjectObtainedMarks	StudentMarksPercentage	OptedScholarship
Computer Networks	1	100	95	95	No
Software Engineering	2	100	92	92	Yes
Data Structures	3	100	94	94	Yes
DBMS	4	100	88	88	No
Computational Mathematics	5	100	97	97	Yes
Social Computing	6	100	91	91	Yes
Data Science	7	100	93	93	No
Intelligent Systems	8	100	90	90	No
Human-Computer Interaction	9	100	87	87	Yes
Visual Computing	10	100	92	92	Yes
Information Security	11	100	85	85	No
Computer Architecture	12	100	96	95	Yes

```
12 rows in set (0.00 sec)
```



**Table 4: SubjectScholarshipInformation**

Update SubjectScholarshipInformation set ScholarshipAmount=5000 where StudentRollNo=5;

```
mysql> Update SubjectScholarshipInformation set ScholarshipAmount=5000 where StudentRollNo=5;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> select * from SubjectScholarshipInformation;
```

StudentRollNo	ScholarshipName	ScholarshipDescription	ScholarshipAmount	ScholarshipCategory	ScholarshipDuration	ScholarshipStatus
1	None	None	0	None	0	No
2	Hope Scholarship	Awarded for Academic Excellence	3000	Academic	Throughout	Not Approved
3	Sports Scholarship	Awarded for Sports Excellence	2000	Sports	Throughout	Approved
4	No	None	0	None	0	No
5	CH Scholarship	Excellence in Computational Mathematics	5000	Academic	Throughout	Approved
6	DS Scholarship	Awarded for Academic Excellence in Data Science	5000	Academic	Throughout	Approved
7	No	None	0	None	0	No
8	No	None	0	None	0	No
9	HCI Scholarship	Awarded for Academic Excellence in HCI	2500	Academic	Throughout	Not Approved
10	Sports Scholarship	Awarded for Sports Excellence	2000	Sports	Throughout	Not Approved
11	No	None	0	None	0	No
12	Sports Scholarship	Awarded for Sports Excellence	2000	Sports	Throughout	Pending

```
12 rows in set (0.00 sec)
```

6. Snaps posted along with updates.

7.

select \* from StudentBasicInformation where StudentRollNo in (select StudentRollNo from SubjectScholarshipInformation where ScholarshipAmount>=5000);

```
mysql> select * from StudentBasicInformation where StudentRollNo in (select StudentRollNo from SubjectScholarshipInformation where ScholarshipAmount>=5000);
```

StudentName	StudentSurname	StudentRollNo	StudentAddress	StudentDOB	StudentFather	StudentMother
Priyankara	Dhar	5	54 /a, Glamour Bldg, Aurther Bunder Road, Colaba	2/10/1998	K U Dhar	Priya Dhar
Rane	Varghese	6	I.t.t.s House, Subhash Road	3/21/1996	Sam Varghese	Francy Varghese

```
2 rows in set (0.00 sec)
```

8.

```
select StudentName, StudentSurname from StudentBasicInformation
S1,SubjectScholarshipInformation S2 where S1.StudentRollNo=S2.StudentRollNo and
ScholarshipStatus="Not Approved";
```

```
mysql> select StudentName, StudentSurname from StudentBasicIn
="Not Approved";
+-----+-----+
| StudentName | StudentSurname |
+-----+-----+
| Darshan    | Lata           |
| Vivek      | Bhavnani       |
| Gautam     | Joshi          |
+-----+-----+
3 rows in set (0.01 sec)
```

9.

Delimiter //

Create Procedure GetPercentage()

Begin

update StudentSubjectInformation

set StudentMarksPercentage=(SubjectObtainedMarks/SubjectTotalMarks)\*100 END //

Delimiter ;

call GetPercentage();

SubjectOpted	StudentRollNo	SubjectTotalMarks	SubjectObtainedMarks	StudentMarksPercentage	OptedScholarship
Computer Networks	1	100	95	95	No
Software Engineering	2	100	92	92	Yes
Data Structures	3	100	94	94	Yes
DBMS	4	100	88	88	No
Computational Mathematics	5	100	97	97	Yes
Social Computing	6	100	91	91	Yes
Data Science	7	100	93	93	No
Intelligent Systems	8	100	90	90	No
Human-Computer Interaction	9	100	87	87	Yes
Visual Computing	10	100	92	92	Yes
Information Security	11	100	85	85	No
Computer Architecture	12	100	96	96	Yes

12 rows in set (0.00 sec)

10.

Delimiter //

Create Procedure Category()

Begin

```
Update SubjectScholarshipInformation s1 natural join StudentSubjectInformation s2
set s1.ScholarshipCategory='Academic Honour' where
StudentMarksPercentage>=96
End //
Delimiter ;
```

```
Select StudentName, StudentMarksPercentage, ScholarshipCategory from
SubjectScholarshipInformation s1 natural join StudentSubjectInformation s2 natural
join StudentBasicInformation;
```

```
mysql> Select StudentName, StudentMarksPercentage, ScholarshipCategory from Subje
dentBasicInformation;
```

StudentName	StudentMarksPercentage	ScholarshipCategory
Arnav	95	None
Darshan	92	Academic
Yasmine	94	Sports
Sahan	88	None
Priyamkara	97	Academic Honour
Rane	91	Academic
Ankita	93	None
Manu	90	None
Uivek	87	Academic
Gautam	92	Sports
Vinay	85	None
Komal	96	Academic Honour

```
12 rows in set (0.00 sec)
```

11.  
create view BalanceView as select  
StudentName,StudentSurname,S1.StudentRollNo,StudentAddress,AmountBalance  
from StudentBasicInformation S1,StudentAdmissionPaymentDetails S2 where  
S1.StudentRollNo=S2.StudentRollNo and S2.AmountBalance>0;

select \* from BalanceView;

```
mysql> select * from BalanceView;
```

StudentName	StudentSurname	StudentRollNo	StudentAddress	AmountBalance
Arnav	Malhotra	1	86 . New Municipal D S Market, Lodhi Colony	5000
Darshan	Lata	2	Sec- I I, Bg-146, Salt Lake, Sech Bhawan	2000
Sahan	Shanker	4	Milan Takies, S. U. Road	500
Priyamkara	Dhar	5	54 /a, Glamour Bldg, Aurther Bunder Road, Colaba	5000
Rane	Uarghese	6	I.t.t.s House, Subhash Road	2000
Ankita	Mittal	7	134 . Patel Inds Estate,Jogeshwari	1500
Manu	Dasgupta	8	145,Nelson Manickam Road	1200
Uivek	Bhavnnani	9	C-27,Palm Gardens, Paul Street	500
Gautam	Joshi	10	AB 767,Mahatama Gandhi Rd	400
Vinay	Baradia	11	37st Floor, Gurudwara Bldg	1000
Komal	Chhabra	12	F-2, Shukla Indl Compd	5000

12.

```
select * from StudentBasicInformation where StudentRollNo in (select
StudentRollNo from SubjectScholarshipInformation where
ScholarshipStatus<>'Approved');
```

```
mysql> select * from StudentBasicInformation where StudentRollNo in (select StudentRollNo from SubjectScholarshipInformation where ScholarshipStatus<>'Approved');
```

StudentName	StudentSurname	StudentRollNo	StudentAddress	StudentDOB	StudentFather	StudentMother
Arnav	Malhotra	1	86 , New Municipal B S Market, Lodhi Colony	11/23/1979	Pankaj Malhotra	Shilpa Malhotra
Darshan	Lata	2	Sec- 1 I, Bg-146, Salt Lake, Sech Bhawan	9/28/1968	Manik Lata	Sunita Lata
Sahan	Shanker	4	Milan Takies, S. U. Road	11/25/1999	Shyan Shanker	Dolly Shanker
Ankita	Mittal	7	134 , Patel Inds Estate,Jogeshwari	15/5/1999	Sunil Mittal	Sunita Mittal
Manu	Dasgupta	8	145,Nelson Manickam Road	23/8/1995	Ketav Dasgupta	Meghna Dasgupta
Uivek	Bhawnani	9	C-27,Palm Gardens, Paul Street	16/4/2000	Shrey Bhawnani	Sanika Bhawnani
Gautam	Joshi	10	RB 767,Mahatama Gandhi Rd	2/5/1999	Ganesh Joshi	Ritu Joshi
Vinay	Baradia	11	37st Floor, Garudwara Bldg	18/10/1998	Salwin Baradia	Neelan Baradia
Komal	Chhabra	12	F-2, Shukla Indl Conpd	8.013400335005025125	Anil Chhabra	Niyati Chhabra

```
7 rows in set (0.00 sec)
```

13.

```
delimiter //
create procedure ProcBalance ( in rno int )
begin
select AmountBalance from StudentAdmissionPaymentDetails where
StudentRollNo=rno;
end //
delimiter ;

call ProcBalance (8);
```

```
mysql> call ProcBalance(8);
```

AmountBalance
1200

```
1 row in set (0.01 sec)
```

14.

```
select * from StudentBasicInformation where StudentRollNo in ( select
StudentRollNo from StudentSubjectInformation order by StudentMarksPercentage
desc limit 5);
```

```
mysql> select * from StudentBasicInformation where StudentRollNo in ( select StudentRollNo from StudentSubjectInformation order by StudentMarksPercentage desc
```

StudentName	StudentSurname	StudentRollNo	StudentAddress	StudentDOB	StudentFather	StudentMother
Arnav	Malhotra	1	86 , New Municipal B S Market, Lodhi Colony	11/23/1979	Pankaj Malhotra	Shilpa Malhotra
Darshan	Lata	2	Sec- 1 I, Bg-146, Salt Lake, Sech Bhawan	9/28/1968	Manik Lata	Sunita Lata
Vannina	Nagar	3	67B1,Gala Residence, South Delhi	8/18/1985	Ran Nagar	Mona Nagar
Sahan	Shanker	4	Milan Takies, S. U. Road	11/25/1999	Shyan Shanker	Dolly Shanker
Pratyanka	Shar	5	54 /a, Glasser Bldg, Southern Bunder Road, Colaba	2/10/1990	U G Shar	Prigna Shar

15.

### **Join**

Select \* from StudentBasicInformation s1 join StudentAdmissionPaymentDetails s2 on s1.StudentRollNo=s2.StudentRollNo;

This join selects all the attributes from the two tables wherever Roll Numbers match. So in the above example, the students details along with the payment details are shown.

### **Left Join**

Select \* from StudentBasicInformation s1 left join StudentSubjectInformation s2 on s1.StudentRollNo=s2.StudentRollNo;

Left join returns all the records from the left table irrespective of whether the condition satisfies between the two tables. If there are no matched records on the right table null is returned from the right table.

### **Right Join**

Select \* from StudentBasicInformation s1 right join StudentSubjectInformation s2 on s1.StudentRollNo=s2.StudentRollNo;

Right join returns all the records from the right table irrespective of whether the condition satisfies between the two tables. If there are no matched records on the left table null is returned from the left table.

---

16.

**Delete:** This removes records from a table based on certain conditions. It removes the data but not the schema. The space that was allocated to the data remains.

**Truncate:** It is a DDL Command. It deletes all the record and space allocated to them. The table schema is preserved.

**Drop:** It deletes the records as well as schema of the table

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17.

Select ScholarshipCategory,count(\*) from SubjectScholarshipInformation group by ScholarshipCategory;

```
mysql> Select ScholarshipCategory,count(*)
+-----+-----+
| ScholarshipCategory | count(*) |
+-----+-----+
| Academic           | 3        |
| Academic Honour    | 2        |
| None               | 5        |
| Sports             | 2        |
+-----+-----+
4 rows in set (0.01 sec)
```

18.

Select ScholarshipCategory,count(\*) from SubjectScholarshipInformation group by ScholarshipCategory order by count(\*) desc limit 1;

```
mysql> Select ScholarshipCategory,count(*)
+-----+-----+
| ScholarshipCategory | count(*) |
+-----+-----+
| None               | 5        |
+-----+-----+
```

19.

Select s1.StudentRollNo, StudentName, StudentSurname, StudentAddress, StudentDOB, StudentMarksPercentage, ScholarshipAmount from (StudentBasicInformation s1 natural join StudentSubjectInformation s2 natural join SubjectScholarshipInformation s3) order by StudentMarksPercentage desc limit 1;

```
mysql> Select s1.StudentRollNo, StudentName, StudentSurname, StudentAddress, StudentDOB, StudentMarksPercentage, ScholarshipAmount from (StudentBasicInformation s1 nat
ral join StudentSubjectInformation s2 natural join SubjectScholarshipInformation s3) order by StudentMarksPercentage desc ;
+-----+-----+-----+-----+-----+-----+-----+
| StudentRollNo | StudentName | StudentSurname | StudentAddress | StudentDOB | StudentMarksPercentage | ScholarshipAmount |
+-----+-----+-----+-----+-----+-----+-----+
| 5 | Priyanka | Dhar | 54 /a, Glamour Bldg, Aurthur Bunder Road, Colaba | 2/10,1998 | 97 | 5000 |
+-----+-----+-----+-----+-----+-----+-----+
```

20.

### **Stored Procedures**

Stored Procedures are pre-compiled objects which are compiled for the first time and its compiled format is saved, which executes (compiled code) whenever it is called. It can be used multiple times.

### **Function**

A function is compiled and executed every time whenever it is called. A function can take parameters and return a value.

The function must return a value but in Stored Procedure it is optional.

### **Views**

Views are synonymous to virtual table. They restrict access to the data in such a way that a user can see and (sometimes) modify exactly what they need. It is generated from a query and stored as a permanent object.

### **Triggers**

A trigger is a special type of stored procedure that automatically runs when an event occurs in the database server. We can execute a SQL query that will "do something" in a database when a change occurs on a database table such as a record is inserted or updated or deleted. For example, a trigger can be set on a record insert in a database table.

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