

## SQL ASSIGNMENT

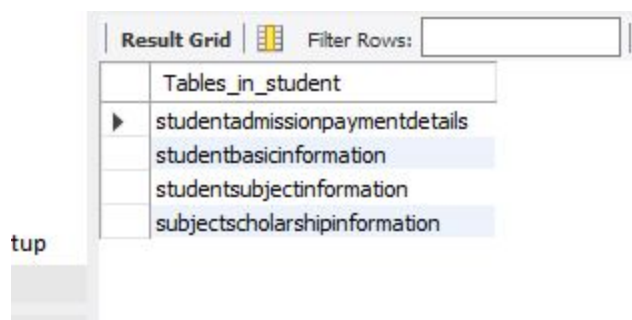
### 1. Create Student Database

```
use Student;  
show tables;
```

### 2. Create the following table under the Student Database:

- StudentBasicInformation
- StudentAdmissionPaymentDetails
- StudentSubjectInformation
- StudentScholarshipInformation

```
3 • create table StudentBasicInformation( StudentRollNo INT,StudentName VARCHAR(20),  
4 StudentSurname VARCHAR(20),StudentAddress VARCHAR(50),StudentAge INT,StudentGrade INT,StudentSection VARCHAR(10),primary  
5 • create table StudentAdmissionPaymentDetails( StudentRollNo INT,StudentName VARCHAR(20),StudentGrade INT,  
6 AmountPaid INT,AmountBalance INT,ModeOfPayment VARCHAR(20),DateOfPayment timestamp,primary key(StudentRollNo));  
7 • Create table StudentSubjectInformation(StudentRoll INT,SubjectOpted VARCHAR(20),StudentName VARCHAR(20),  
8 SubjectTotalMarks INT,SubjectObtainedMarks INT, StudentMarksPercentage float,primary key(StudentRoll));  
9 • Create Table SubjectScholarshipInformation(StudentRollNo INT ,StudentName varchar(20),StudentApplied varchar(20),Schol:  
10 ScholarshipDescription varchar(50),ScholarshipAmount INT,ScholarshipCategory varchar(30),StudentRecieved varchar(12),  
11 primary key(StudentRollNo));
```



### 3. Insert details into all the above tables :

The tables after insertion are as follows:-

## 1. StudentBasicInformation

15 • `INSERT INTO StudentBasicInformation(StudentRollNo,StudentName,`

Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content: `⌂`

	StudentRollNo	StudentName	StudentSurname	StudentAddress	StudentAge	StudentGrade	StudentSection
▶	1	Rachel	Green	ChurchStreet	15	7	A
	2	Ross	Geller	Ave-Suit 3 B	17	11	B
	3	Chandler	Bing	Alferd Tower	17	11	B
	4	Monika	Geller	EmpireState Building	15	7	A
	5	Pheobe	Buffey	bayStreet	16	8	C
	6	Joey	Tribbiani	Theatre Road	14	7	B
	7	Gunther	Johns	CentralPerk	18	12	A
	8	Joshua	Sew	PlazaBuilding	13	6	B
	9	Tag	Jones	Maseys	12	6	C
	10	Regina	Philange	Rockfeller Center	15	7	A
	11	Martha	River	LakeSide Road	14	10	B

StudentBasicInformation 8 x Apply

## 2.StudentAdmissionInformation

131 • `INSERT INTO StudentAdmissionPaymentDetails(StudentRollNo,StudentName,StudentGrade,`

Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content: `⌂`

	StudentRollNo	StudentName	StudentGrade	AmountPaid	AmountBalance	ModeOfPayment	DateOfPayment
▶	1	Rachel	7	3000	2000	DD	2021-01-09 00:00:00
	2	Ross	11	4000	1000	GooglePay	2021-01-01 00:00:00
	3	Chandler	11	5000	0	Paytm	2021-01-04 00:00:00
	4	Monika	7	3000	2000	DD	2021-01-07 00:00:00
	5	Pheobe	8	1000	4000	PayU	2021-01-03 00:00:00
	6	Joey	7	4000	1000	DD	2021-02-01 00:00:00
	7	Gunther	12	3000	2000	NEFT	2021-01-08 00:00:00
	8	Joshua	6	1000	4000	DD	2021-01-01 00:00:00
	9	Tag	6	3000	2000	DD	2021-01-02 00:00:00
	10	Regina	7	4000	1000	RTGS	2021-01-09 00:00:00
	11	Martha	10	5000	0	DD	2021-01-09 00:00:00

StudentAdmissionPaymentDetail... x

Output

Action Output

### 3. StudentSubjectInformation

```
90 • INSERT INTO StudentSubjectInformation(StudentRoll,SubjectOpted,StudentName,  
91 SubjectTotalMarks,SubjectObtainedMarks,StudentMarksPercentage)VALUES(11,'English,Sci,Maths','Mart  
92 • Select * from StudentSubjectInformation;
```

Result Grid

	StudentRoll	SubjectOpted	StudentName	SubjectTotalMarks	SubjectObtainedMarks	StudentMarksPercentage
▶	1	English,Hindi,Maths	Rachel	300	200	66.6
	2	Phy,Chem,Maths	Ross	300	290	96.6
	3	English,SST,Maths	Chandler	300	260	86.6
	4	English,Hindi,Maths	Monika	300	250	83.3
	5	English,SSC,EVS	Pheobe	300	200	66.6
	6	English,Hindi,Drama	Joey	300	160	53.3
	7	English,Hindi,Maths	Gunther	300	210	70
	8	English,Geo,Maths	Joshua	300	200	66.6
	9	English,Hindi,EVS	Tag	300	170	56.6
	10	English,Civics,Maths	Regina	300	150	50
	11	English,Sci,Maths	Martha	300	280	93.3

### 4. SubjectScholarshipInformation

```
93 • INSERT INTO SubjectScholarshipInformation(StudentRollNo,StudentName,StudentApplied,ScholarshipName,  
94 ScholarshipDescription,ScholarshipAmount,ScholarshipCategory,StudentRecieved)
```

Result Grid

	StudentRollNo	StudentName	StudentApplied	ScholarshipName	ScholarshipDescription	ScholarshipAmount	ScholarshipCategory	StudentRecieved
▶	1	Rachel	Yes	CommunityService	socialwork	2000	Primary	NO
	2	Ross	Yes	AcademicAchievement	academics	7000	Secondary	YES
	3	Chandler	Yes	AtheleticAchievement	sports	6000	Secondary	YES
	4	Monika	Yes	Co-curricular	activities	5000	Primary	YES
	5	Pheobe	Yes	CommunityService	socialwork	4000	Primary	YES
	6	Joey	Yes	AtheleticAchivement	sports	2000	Primary	NO
	7	Gunther	Yes	CommunityService	socialwork	2000	Primary	NO
	8	Joshua	Yes	LowFinance	finance	7000	Primary	YES
	9	Tag	Yes	CommunityService	socialwork	2000	Primary	NO
	10	Regina	Yes	PersonalBackground	manners	1000	Primary	NO
	11	Martha	Yes	AcademicsAchievement	studies	9000	Secondary	NO

SubjectScholarshipInformation 10 x

Output

Action Output

#	Time	Action	Message
✓ 175	16:38:15	INSERT INTO SubjectScholarshipInformation(StudentRollNo,StudentName,StudentApplied....	1 row(s) affected

**5 Update any 5 records of your choice in any table like update the StudentAddress with some other address content and likewise so on with any records of any table of your choice**

```
Update StudentBasicInformation SET StudentAddress="Airport Road" WHERE StudentName='Rachel';
Select* from StudentBasicInformation;
Update StudentBasicInformation SET StudentAge=17 WHERE StudentName='Rachel';
Select* from StudentBasicInformation;
select * from subjectscholarshipinformation;
Update StudentAdmissionPaymentDetails SET DateOfPayment="2021-01-04" WHERE StudentName="Ross";
Select * from StudentAdmissionPaymentDetails;
Update StudentSubjectInformation SET SubjectOpted="sociology" WHERE StudentRoll=8;
Select * from StudentSubjectInformation;
Update StudentSubjectInformation SET SubjectOpted="sociology" WHERE StudentName='Tag';
Select * from StudentBasicInformation
```

Update

1.

Update StudentBasicInformation SET StudentAddress="Airport Road" WHERE StudentName='Rachel';

Select\* from StudentBasicInformation;

	StudentRollNo	StudentName	StudentSurname	StudentAddress	StudentAge	StudentGrade	StudentSection
▶	1	Rachel	Green	Airport Road	15	7	A
	2	Ross	Geller	Ave-Suit 3 B	17	11	B
	3	Chandler	Bing	Alferd Tower	17	11	B
	4	Monika	Geller	EmpireState Building	15	7	A
	5	Pheobe	Buffey	bayStreet	16	8	C
	6	Joey	Tribbiani	Theatre Road	14	7	B
	7	Gunther	Johns	CentralPerk	18	12	A
	8	Joshua	Sew	PlazaBuilding	13	6	B
	9	Tag	Jones	Maseys	12	6	C
	10	Regina	Philange	Rockfeller Center	15	7	A
	11	Martha	River	LakeSide Road	14	10	B
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

StudentBasicInformation 37



2:

Update StudentAdmissionPaymentDetails SET DateOfPayment="2021-01-04" WHERE StudentName="Ross";

Select \* from StudentAdmissionPaymentDetails;

Result Grid

Filter Rows:

Edit:

Export/Import:









Wrap Cell Content:

	StudentRollNo	StudentName	StudentGrade	AmountPaid	AmountBalance	ModeOfPayment	DateOfPayment
▶	1	Rachel	7	3000	2000	DD	2021-01-09 00:00:00
	2	Ross	11	4000	1000	GooglePay	2021-01-04 00:00:00
	3	Chandler	11	5000	0	Paytm	2021-01-04 00:00:00
	4	Monika	7	3000	2000	DD	2021-01-07 00:00:00
	5	Pheobe	8	1000	4000	PayU	2021-01-03 00:00:00
	6	Joey	7	4000	1000	DD	2021-02-01 00:00:00
	7	Gunther	12	3000	2000	NEFT	2021-01-08 00:00:00
	8	Joshua	6	1000	4000	DD	2021-01-01 00:00:00
	9	Tag	6	3000	2000	DD	2021-01-02 00:00:00
	10	Regina	7	4000	1000	RTGS	2021-01-09 00:00:00
	11	Martha	10	5000	0	DD	2021-01-09 00:00:00
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

StudentAdmissionPaymentDetail... x

3

Update StudentBasicInformation SET StudentAge=17 WHERE StudentName='Rachel';  
Select\* from StudentBasicInformation;

Result Grid				Filter Rows: <input type="text"/>	Edit:   	Export/Import:  	Wrap Cell Content: 
	StudentRollNo	StudentName	StudentSurname	StudentAddress	StudentAge	StudentGrade	StudentSection
▶	1	Rachel	Green	Airport Road	17	7	A
	2	Ross	Geller	Ave-Suit 3 B	17	11	B
	3	Chandler	Bing	Alferd Tower	17	11	B
	4	Monika	Geller	EmpireState Building	15	7	A
	5	Pheobe	Buffey	bayStreet	16	8	C
	6	Joey	Tribbiani	Theatre Road	14	7	B
	7	Gunther	Johns	CentralPerk	18	12	A
	8	Joshua	Sew	PlazaBuilding	13	6	B
	9	Tag	Jones	Maseys	12	6	C
	10	Regina	Philange	Rockfeller Center	15	7	A
	11	Martha	River	LakeSide Road	14	10	B
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

4

Update StudentSubjectInformation SET SubjectOpted="sociology" WHERE StudentRoll=8;

Select \* from StudentSubjectInformation;

Result Grid						
Filter Rows:		Edit:		Export/Import:		Wrap Cell Content:
	StudentRoll	SubjectOpted	StudentName	SubjectTotalMarks	SubjectObtainedMarks	StudentMarksPercentage
▶	1	English,Hindi,Maths	Rachel	300	200	66.6667
	2	Phy,Chem,Maths	Ross	300	290	96.6667
	3	English,SST,Maths	Chandler	300	260	86.6667
	4	English,Hindi,Maths	Monika	300	250	83.3333
	5	English,SSC,EVS	Pheobe	300	200	66.6667
	6	English,Hindi,Drama	Joey	300	160	53.3333
	7	English,Hindi,Maths	Gunther	300	210	70
	8	sociology	Joshua	300	200	66.6667
	9	sociology	Tag	300	170	56.6667
	10	English,Civics,Maths	Regina	300	150	50
	11	English,Sci,Maths	Martha	300	280	93.3333
*	NULL	NULL	NULL	NULL	NULL	NULL

5.

Update StudentSubjectInformation SET SubjectOpted="soc" WHERE StudentRoll=8;

Select \* from StudentSubjectInformation;

StudentRoll	SubjectOpted	StudentName	SubjectTotalMarks	SubjectObtainedMarks	StudentMarksPercentage
1	English,Hindi,Maths	Rachel	300	200	66.6667
2	Phy,Chem,Maths	Ross	300	290	96.6667
3	English,SST,Maths	Chandler	300	260	86.6667
4	English,Hindi,Maths	Monika	300	250	83.3333
5	English,SSC,EVS	Pheobe	300	200	66.6667
6	English,Hindi,Drama	Joey	300	160	53.3333
7	English,Hindi,Maths	Gunther	300	210	70
8	sociology	Joshua	300	200	66.6667
9	soc	Tag	300	170	56.6667
10	English,Civics,Maths	Regina	300	150	50
11	English,Sci,Maths	Martha	300	280	93.3333
NULL	NULL	NULL	NULL	NULL	NULL

7. Select the student details records who has received the scholarship more than 5000Rs/-

```

159 • Select * from StudentBasicInformation
160 where StudentRollNo IN(Select StudentRollNo from SubjectScholarshipInformation where ScholarshipAmount>5000);
161 • Select StudentName from StudentBasicInformation

```

StudentRollNo	StudentName	StudentSurname	StudentAddress	StudentAge	StudentGrade	StudentSection
2	Ross	Geller	Ave-Suit 3 B	17	11	B
3	Chandler	Bing	Alferd Tower	17	11	B
8	Joshua	Sew	PlazaBuilding	13	6	B
11	Martha	River	LakeSide Road	14	10	B
NULL	NULL	NULL	NULL	NULL	NULL	NULL

8. Select the students who opted for scholarship but has not got the scholarship

```

161 • Select StudentName from StudentBasicInformation
162 where StudentRollNo in(Select StudentRollNo from SubjectScholarshipInformation where StudentApplied="Yes" AND StudentR
163

```

StudentName
Rachel
Joey
Gunther
Tag
Regina
Martha

9. Fill in data for the percentage column i.e. StudentMarksPercentage in the table StudentSubjectInformation by creating and using the stored procedure created

```

delimiter //
create procedure insertpercentage()
begin
update StudentSubjectInformation set StudentMarksPercentage=100*(SubjectObtainedMarks/SubjectTotalMarks);
end //
delimiter ;
call insertpercentage();

```

Result Grid						
Filter Rows:		Edit:		Export/Import:		Wrap Cell Content:
StudentRoll	SubjectOpted	StudentName	SubjectTotalMarks	SubjectObtainedMarks	StudentMarksPercentage	
1	English,Hindi,Maths	Rachel	300	200	66.6667	
2	Phy,Chem,Maths	Ross	300	290	96.6667	
3	English,SST,Maths	Chandler	300	260	86.6667	
4	English,Hindi,Maths	Monika	300	250	83.3333	
5	English,SSC,EVS	Pheobe	300	200	66.6667	
6	English,Hindi,Drama	Joey	300	160	53.3333	
7	English,Hindi,Maths	Gunther	300	210	70	
8	sociology	Joshua	300	200	66.6667	
9	sociology	Tag	300	170	56.6667	
10	English,Civics,Maths	Regina	300	150	50	
11	English,Sci,Maths	Martha	300	280	93.3333	
* NULL	NULL	NULL	NULL	NULL	280	

StudentSubjectInformation 45 x

**10 Decide the category of the scholarship depending upon the marks/percentage obtained by the student and likewise update the ScholarshipCategory column, create a stored procedure in order to handle this operation**

```

delimiter //
create procedure category_scholarship()
begin
declare total int;
declare ii int;
declare rollno int;
declare per int;
select count(*) into total from subjectscholarshipinformation;
set ii=0;
while ii<total do
select studentrollno into rollno from subjectscholarshipinformation limit ii,1;
select studentmarkspercentage into per from studentsubjectinformation where StudentRoll=rollno;
if per >80 then
update subjectscholarshipinformation set ScholarshipCategory="Category A" where StudentRollNo = rollno;
elseif per >50 and per <=80 then
update subjectscholarshipinformation set ScholarshipCategory="Category B" where StudentRollNo = rollno;
elseif per>0 and per<=50 then
update subjectscholarshipinformation set ScholarshipCategory="Category C" where StudentRollNo = rollno;
end if;
set ii = ii+1;
end while;
end //
delimiter ;
call category_scholarship();

```



Result Grid								
Filter Rows:		Edit:		Export/Import:		Wrap Cell Content:		
StudentRollNo	StudentName	StudentApplied	ScholarshipName	ScholarshipDescription	ScholarshipAmount	ScholarshipCategory	StudentRecieved	
1	Rachel	Yes	CommunityService	socialwork	2000	Category B	NO	
2	Ross	Yes	AcademicAchievement	academics	7000	Category A	YES	
3	Chandler	Yes	AtheleticAchievement	sports	6000	Category A	YES	
4	Monika	Yes	Co-curricular	activities	5000	Category A	YES	
5	Pheobe	Yes	CommunityService	socialwork	4000	Category B	YES	
6	Joey	Yes	AtheleticAchievement	sports	2000	Category B	NO	
7	Gunther	Yes	CommunityService	socialwork	2000	Category B	NO	
8	Joshua	Yes	LowFinance	finance	7000	Category B	YES	
9	Tag	Yes	Art and Culture	socialwork	2000	Category B	NO	
10	Regina	Yes	PersonalBackground	manners	1000	Category C	NO	
11	Martha	Yes	AcademicsAchievement	studies	9000	Category A	NO	
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	

11. Create the View which shows balance amount to be paid by the student along with the student detailed information (use join).

```
create view showbalance AS
select S.StudentRollNo , S.StudentName ,SS.AmountBalance
FROM StudentBasicInformation S INNER JOIN StudentAdmissionPaymentdetails SS
ON S.StudentRollNo = SS.StudentRollNo;
select * from showbalance;
```

Result Grid			
Filter Rows:		Exp	
StudentRollNo	StudentName	AmountBalance	
1	Rachel	2000	
2	Ross	1000	
3	Chandler	0	
4	Monika	2000	
5	Pheobe	4000	
6	Joey	1000	
7	Gunther	2000	
8	Joshua	4000	
9	Tag	2000	
10	Regina	1000	
11	Martha	0	

12. Get the details of the students who haven't got any scholarship (use joins/subqueries)

```
SELECT S.StudentRollNo, S.StudentName ,S.StudentSurname ,S.StudentAddress ,S.StudentAge,S.StudentGrade ,S.StudentSection
FROM StudentBasicInformation S INNER JOIN SubjectScholarshipInformation SS
ON S.StudentRollNo = SS.StudentRollNo
WHERE StudentRecieved = 'NO';
```

Result Grid							
Filter Rows: <input type="text"/>							
Export: <input type="text"/> Wrap Cell Content: <input type="text"/>							
	StudentRollNo	StudentName	StudentSurname	StudentAddress	StudentAge	StudentGrade	StudentSection
▶	1	Rachel	Green	Airport Road	15	7	A
	6	Joey	Tribbiani	Theatre Road	14	7	B
	7	Gunther	Johns	CentralPerk	18	12	A
	9	Tag	Jones	Maseys	12	6	C
	10	Regina	Philange	Rockefeller Center	15	7	A
	11	Martha	River	LakeSide Road	14	10	B

**13. Create Stored Procedure which will be return the amount balance to be paid by the student as per the student roll number passed through the stored procedure as the input**

```

delimiter //
create procedure amt_check( in rollno int )
begin
select amountbalance from studentadmissionpaymentdetails where studentrollno=rollno;
end //
delimiter ;
call amt_check(2);

```

Result Grid	
Filter Rows: <input type="text"/>	
amountbalance	
▶	1000

**14. Retrieve the top five student details as per the StudentMarksPercentage values (use subqueries)**

```

219 • call amt_check(2);
220 • SELECT * FROM (SELECT * FROM StudentSubjectInformation ORDER BY StudentMarksPercentage desc)
221 as StudentMarksPercentage
222 ORDER BY StudentMarksPercentage desc
223 limit 5;
223 • select * from StudentBasicInformation S INNER JOIN StudentSubjectInformation SS

```

Result Grid					
Filter Rows: <input type="text"/>					
Export: <input type="text"/> Wrap Cell Content: <input type="text"/> Fetch rows: <input type="text"/>					
	StudentRoll	SubjectOpted	StudentName	SubjectTotalMarks	StudentMarksPercentage
▶	2	Phy,Chem,Maths	Ross	300	96.6667
	11	English,Sci,Maths	Martha	300	93.3333
	3	English,SST,Maths	Chandler	300	86.6667
	4	English,Hindi,Maths	Monika	300	83.3333
	7	English,Hindi,Maths	Gunther	300	70

15. Try to use all the three types of join learned today in a relevant way, and explain the same why you thought of using that particular join for your selected scenarios (try to cover relevant and real time scenarios for all the three studied joins)

### 1. Inner join

```
225 • select * from StudentBasicInformation S LEFT JOIN StudentSubjectInformation SS
226 on S.StudentRollNo = SS.StudentRoll;
227
228 • select * from StudentBasicInformation S RIGHT JOIN StudentSubjectInformation SS
```

StudentRollNo	StudentName	StudentSurname	StudentAddress	StudentAge	StudentGrade	StudentSection	StudentRoll	SubjectOpted	StudentName	Subje
1	Rachel	Green	Airport Road	15	7	A	1	English,Hindi,Maths	Rachel	300
2	Ross	Geller	Ave-Suit 3 B	17	11	B	2	Phy,Chem,Maths	Ross	300
3	Chandler	Bing	Alferd Tower	17	11	B	3	English,SST,Maths	Chandler	300
4	Monika	Geller	EmpireState Building	15	7	A	4	English,Hindi,Maths	Monika	300
5	Pheobe	Buffey	bayStreet	16	8	C	5	English,SSC,EVS	Pheobe	300
6	Joey	Tribbiani	Theatre Road	14	7	B	6	English,Hindi,Drama	Joey	300
7	Gunther	Johns	CentralPerk	18	12	A	7	English,Hindi,Maths	Gunther	300
8	Joshua	Sew	PlazaBuilding	13	6	B	8	sociology	Joshua	300
9	Tag	Jones	Maseys	12	6	C	9	sociology	Tag	300
10	Regina	Philange	Rockfeller Center	15	7	A	10	English,Civics,Maths	Regina	300
11	Martha	River	LakeSide Road	14	10	B	11	English,Sci,Maths	Martha	300

### 2. Left join

```
225 • select * from StudentBasicInformation S LEFT JOIN StudentSubjectInformation SS
226 on S.StudentRollNo = SS.StudentRoll;
227
228 • select * from StudentBasicInformation S RIGHT JOIN StudentSubjectInformation SS
```

StudentRollNo	StudentName	StudentSurname	StudentAddress	StudentAge	StudentGrade	StudentSection	StudentRoll	SubjectOpted	StudentName	Subje
1	Rachel	Green	Airport Road	15	7	A	1	English,Hindi,Maths	Rachel	300
2	Ross	Geller	Ave-Suit 3 B	17	11	B	2	Phy,Chem,Maths	Ross	300
3	Chandler	Bing	Alferd Tower	17	11	B	3	English,SST,Maths	Chandler	300
4	Monika	Geller	EmpireState Building	15	7	A	4	English,Hindi,Maths	Monika	300
5	Pheobe	Buffey	bayStreet	16	8	C	5	English,SSC,EVS	Pheobe	300
6	Joey	Tribbiani	Theatre Road	14	7	B	6	English,Hindi,Drama	Joey	300
7	Gunther	Johns	CentralPerk	18	12	A	7	English,Hindi,Maths	Gunther	300
8	Joshua	Sew	PlazaBuilding	13	6	B	8	sociology	Joshua	300
9	Tag	Jones	Maseys	12	6	C	9	sociology	Tag	300
10	Regina	Philange	Rockfeller Center	15	7	A	10	English,Civics,Maths	Regina	300
11	Martha	River	LakeSide Road	14	10	B	11	English,Sci,Maths	Martha	300

### 3. Right join

```
227
228 • select * from StudentBasicInformation S RIGHT JOIN StudentSubjectInformation SS
229 on S.StudentRollNo = SS.StudentRoll;
230 • select ScholarshipCategory , count(*) as count from
231 SubjectScholarshipInformation
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	StudentRollNo	StudentName	StudentSurname	StudentAddress	StudentAge	StudentGrade	StudentSection	StudentRoll	SubjectOpted	StudentName	Subje
▶	1	Rachel	Green	Airport Road	15	7	A	1	English,Hindi,Maths	Rachel	300
	2	Ross	Geller	Ave-Suit 3 B	17	11	B	2	Phy,Chem,Maths	Ross	300
	3	Chandler	Bing	Alferd Tower	17	11	B	3	English,SST,Maths	Chandler	300
	4	Monika	Geller	EmpireState Building	15	7	A	4	English,Hindi,Maths	Monika	300
	5	Pheobe	Buffey	bayStreet	16	8	C	5	English,SSC,EVS	Pheobe	300
	6	Joey	Tribbiani	Theatre Road	14	7	B	6	English,Hindi,Drama	Joey	300
	7	Gunther	Johns	CentralPerk	18	12	A	7	English,Hindi,Maths	Gunther	300
	8	Joshua	Sew	PlazaBuilding	13	6	B	8	sociology	Joshua	300
	9	Tag	Jones	Maseys	12	6	C	9	sociology	Tag	300
	10	Regina	Philange	Rockfeller Center	15	7	A	10	English,Civics,Maths	Regina	300
	11	Martha	River	LakeSide Road	14	10	B	11	English,Sci,Maths	Martha	300

### 16. Mention the differences between the delete, drop and truncate commands

**Drop** – Drop is a DDL command which deletes the data of the tables as well as remove the entire schema/structure of the table from the database.

Drop table tablename;

**Delete** – Delete is a DML command which deletes existing records from an existing table. We can delete single or multiple records specified in the query.

Delete from tablename[ where clause];

**Truncate** – It is a DDL command which deletes existing records from an existing table but not the table itself . we cannot use WHERE clause and cannot specify any condition with truncate.

Truncate table tablename;

### 17. Get the count of the Scholarship category which is highly been availed by the students, i.e. get the count of the total number of students corresponding to the each scholarships category



```

230 • select ScholarshipCategory , count(*) from
231 SubjectScholarshipInformation
232 group by ScholarshipCategory;

```

Result Grid | | Filter Rows:  | Export: | Wrap Cell Content:

	ScholarshipCategory	count(*)
▶	Category B	6
	Category A	4
	Category C	1

**18 Along with the assignment no. 17 try to retrieve the maximum used scholarship category**

```

233 • select ScholarshipCategory , count(*) As scholarshipcategorycount
234 from SubjectScholarshipInformation
235 group by ScholarshipCategory
236 order by scholarshipcategorycount desc
237 limit 1;
238 • ⦿ select S.StudentName ,S.StudentRollNo,SSS.StudentMarksPercentage, SS.ScholarshipCategory


```

Result Grid | | Filter Rows:  | Export: | Wrap Cell Content: | Fetch rows:

	ScholarshipCategory	scholarshipcategorycount
▶	Category B	6

**19. Retrieve the percentage of the students along with students detailed information who has scored the highest percentage along with availing the maximum scholarship amount**

```
238 • select S.StudentName ,S.StudentRollNo,SSS.StudentMarksPercentage, SS.ScholarshipAmount from ((StudentBasicInformation S INNER
239 INNER JOIN StudentSubjectInformation SSS on S.StudentRollNo= SSS.StudentRoll)
240 order by SSS.StudentMarksPercentage desc ,SS.ScholarshipAmount desc limit 1;
241
```



The screenshot shows a database query result grid. The grid has four columns: StudentName, StudentRollNo, StudentMarksPercentage, and ScholarshipAmount. The first row contains the data for student Ross, with a roll number of 2, a marks percentage of 96.6667, and a scholarship amount of 7000. The grid also includes a toolbar with options like Filter Rows, Export, Wrap Cell Content, and Fetch rows.

StudentName	StudentRollNo	StudentMarksPercentage	ScholarshipAmount
Ross	2	96.6667	7000

## 20. Difference between the Triggers, Stored Procedures, Views and Functions

**Triggers** - Trigger is a stored procedure that runs automatically when various events happen (eg update, insert, delete). It can execute automatically based on the events .It can not take input as a parameter .They don't return any value.

**Stored procedures** – Stored procedures are pieces of the code written in SQL to do some specific task. It can be invoked explicitly by the user.It can take input as a parameter .

**Views**- View is a virtual table. It does not physically exist. Rather, it is created by a query joining one or more tables. Views returns a table.

**Function** – Function used to calculate result using given inputs and can return single value and only works with select statements