

Create table with the following fields

1. **tblcourse**: CourseId(P.K, A.I), Coursename, CourseShortname, Coursetype
2. **tblbatch**: BatchId(P.K, A.I), BatchName
3. **tblstudent**: StudentId(P.K, A.I), Student_Name, Student_Gender, Student_DOB, Student_Email, Course_ID, Batch_Id, Student_Mark

1. Select all the details of courses

course_id	course_name	course_shortname	course_type
1	Bachelors in Computer Application	BCA	UG
2	Masters in Computer science	MCA	PG
3	Bachelors in Commerce	BCom	UG
4	Masters in Commerce	MCom	PG
5	Bachelors in Social Work	BSW	UG
6	Masters in Social Work	MSW	PG

2. Select the name of UG courses

course_id	course_name	course_shortname	course_type
1	Bachelors in Computer Application	BCA	UG
3	Bachelors in Commerce	BCom	UG
5	Bachelors in Social Work	BSW	UG

3. Select the name and shortname of PG courses

course_name	course_shortname
Masters in Computer science	MCA
Masters in Commerce	MCom
Masters in Social Work	MSW

4. Select the details of batches

	batch_id	batch_name
1	1	2018-2020
2	2	2019-2021
3	3	2020-2022

5. Select the details of students

```
select * from tbl_student;
```

student_id	student_name	student_gender	student_dob	student_email	course_id	batch_id	student_mark
1	Akhil	Male	05-07-2000	akhil@gmail.com	1	1	89
2	Biju	Male	17-10-1998	biju@gmail.com	2	1	86
3	Roshan	Male	01-12-2001	roshan@gmail.com	1	1	71
4	Rina	Female	12-03-2000	rina@gmail.com	3	2	91
5	Mritu	Female	19-07-1999	mritu@gmail.com	4	2	78
6	Anu	Female	26-10-1999	anu@gmail.com	5	3	70

Select

```
student_id,student_name,student_gender,student_dob,student_email,batch_name,course
_name,student_mark from tbl_student a inner join tbl_course c ON
a.course_id=c.course_id inner join tbl_batch b on a.batch_id=b.batch_id;
```

	student_id	student_name	student_gender	student_dob	student_email	batch_name	course_name	student_mark
1	1	Akhil	Male	05-07-2000	akhil@gmail.com	2018-2020	Bachelors in Computer Application	89
2	2	Biju	Male	17-10-1998	biju@gmail.com	2018-2020	Masters in Computer science	86
3	3	Roshan	Male	01-12-2001	roshan@gmail.com	2018-2020	Bachelors in Computer Application	71
4	4	Rina	Female	12-03-2000	rina@gmail.com	2019-2021	Bachelors in Commerce	91
5	5	Mritu	Female	19-07-1999	mritu@gmail.com	2019-2021	Masters in Commerce	78
6	6	Anu	Female	26-10-1999	anu@gmail.com	2020-2022	Bachelors in Social Work	70
7	7	Ashik	Male	15-07-2000	ashik@gmail.com	2019-2021	Bachelor in Administration	96

6. Insert three student details whose course is BCA or MCA

```
insert into tbl_student values('01','Akhil','Male','05-07-
2000','akhil@gmail.com','01','01','89');
insert into tbl_student values('02','Biju','Male','17-10-
1998','biju@gmail.com','02','01','86');
insert into tbl_student values('03','Roshan','Male','01-12-
2001','roshan@gmail.com','01','01','71');
```

student_id	student_name	student_gender	student_dob	student_email	course_id	batch_id	student_mark
1	Akhil	Male	05-07-2000	akhil@gmail.com	1	1	89
2	Biju	Male	17-10-1998	biju@gmail.com	2	1	86
3	Roshan	Male	01-12-2001	roshan@gmail.com	1	1	71

7. Select the count of male and female students

```
SELECT COUNT(case when student_gender='Male' then 1 end) AS
Total_Male,
COUNT(case when student_gender='Female' then 1 end)As Total_Female from
tbl_student;
```

	Total_Male	Total_Female
1	3	3

8. Select the details of Female Student

```
select * from tbl_student where student_gender='female';
```

	student_id	student_name	student_gender	student_dob	student_email	course_id	batch_id	student_mark
1	4	Rina	Female	12-03-2000	rina@gmail.com	3	2	91
2	5	Mritu	Female	19-07-1999	mritu@gmail.com	4	2	78
3	6	Anu	Female	26-10-1999	anu@gmail.com	5	3	70

9. Select the details Males students whose course is MCA

```
select a.*,b.course_name from tbl_student a inner join tbl_course b on
a.course_id=b.course_id where student_gender='male' and a.course_id='2';
```

	student_id	student_name	student_gender	student_dob	student_email	course_id	batch_id	student_mark	course_name
1	2	Biju	Male	17-10-1998	biju@gmail.com	2	1	86	Masters in Computer science

10. Select the details BA Students

```
select * from tbl_student where Course_id=(select Course_id from
tbl_course where course_shortcode='BA') ;
```

	student_id	student_name	student_gender	student_dob	student_email	course_id	batch_id	student_mark
1	7	Ashik	Male	15-07-2000	ashik@gmail.com	7	2	96

11. Select the details of BA students whose batch is 2017-2020

```
select * from tbl_student where Course_id=(select Course_id from tbl_course where
course_shortcode='BA') and batch_id=(select batch_id
from tbl_batch where batch_name='2017-2020');
```

	student_id	student_name	student_gender	student_dob	student_email	course_id	batch_id	student_mark
1	7	Ashik	Male	15-07-2000	ashik@gmail.com	7	4	96

12. Select all the course short name and total number of students Sample output

```
SELECT c.course_shortcode AS course_name ,COUNT(*) AS Count_students
FROM tbl_course c JOIN tbl_student s
ON s.Course_id = c.Course_id GROUP BY c.course_shortcode;
```

	course_name	Count_students
1	BA	1
2	BCA	2
3	BCom	1
4	BSW	1
5	MCA	1
6	MCom	1

13. Select the details UG Students

```
select * from tbl_student where Course_id IN(select Course_id from
tbl_course where course_type='UG');
```

	student_id	student_name	student_gender	student_dob	student_email	course_id	batch_id	student_mark
1	1	Akhil	Male	05-07-2000	akhil@gmail.com	1	1	89
2	3	Roshan	Male	01-12-2001	roshan@gmail.com	1	1	71
3	4	Rina	Female	12-03-2000	rina@gmail.com	3	2	91
4	6	Anu	Female	26-10-1999	anu@gmail.com	5	3	70
5	7	Ashik	Male	15-07-2000	ashik@gmail.com	7	4	96

14. Select the details of PG Students

```
select * from tbl_student where Course_id IN(select Course_id from
tbl_course where course_type='PG');
```

	student_id	student_name	student_gender	student_dob	student_email	course_id	batch_id	student_mark
1	2	Biju	Male	17-10-1998	biju@gmail.com	2	1	86
2	5	Mritu	Female	19-07-1999	mritu@gmail.com	4	2	78

15. Select the details of MCA Students whose batch is 2019-2021

```
select * from tbl_student where course_id =(select Course_id from
tbl_course where course_shortcode='MCA') AND batch_id=(select batch_id
from tbl_batch where batch_name='2019-2021');
```

	student_id	student_name	student_gender	student_dob	student_email	course_id	batch_id	student_mark
1	8	Rony	Male	17-05-2000	rony@gmail.com	2	2	89

16. Select the email and DOB of BCA Students

```
select student_email,student_dob from tbl_student where
course_id=(select course_id from tbl_course where
course_shortcode='BCA');
```

	student_email	student_dob
1	akhil@gmail.com	05-07-2000
2	roshan@gmail.com	01-12-2001

17. Select the students details with their course name and batch name

```
select s.student_name AS Student_Name ,c.course_name AS
Course_Name,b.batch_name from tbl_course c JOIN tbl_student s ON
s.course_id=c.course_id JOIN tbl_batch b ON b.batch_id=s.batch_id;
```

	Student_Name	Course_Name	batch_name
1	Akhil	Bachelors in Computer Application	2018-2020
2	Biju	Masters in Computer science	2018-2020
3	Roshan	Bachelors in Computer Application	2018-2020
4	Rina	Bachelors in Commerce	2019-2021
5	Mritu	Masters in Commerce	2019-2021
6	Anu	Bachelors in Social Work	2020-2022
7	Ashik	Bachelor in Administration	2017-2020
8	Rony	Masters in Computer science	2019-2021

18. Select Batch name and number of students

```
SELECT b.batch_name AS Batch_Name ,COUNT(*) AS Count_students FROM
tbl_batch b JOIN tbl_student s ON s.batch_id = b.batch_id GROUP BY
b.batch_name;
```

	Batch_Name	Count_students
1	2017-2020	1
2	2018-2020	3
3	2019-2021	3
4	2020-2022	1

19. Select the students name, course name and students email

```
select s.student_name AS Student_Name ,c.course_name AS Course_Name,S.student_email
from tbl_course c JOIN tbl_student s ON s.course_id=c.course_id ;
```

	Student_Name	Course_Name	student_email
1	Akhil	Bachelors in Computer Application	akhil@gmail.com
2	Biju	Masters in Computer science	biju@gmail.com
3	Roshan	Bachelors in Computer Application	roshan@gmail.com
4	Rina	Bachelors in Commerce	rina@gmail.com
5	Mritu	Masters in Commerce	mritu@gmail.com
6	Anu	Bachelors in Social Work	anu@gmail.com
7	Ashik	Bachelor in Administration	ashik@gmail.com
8	Rony	Masters in Computer science	rony@gmail.com

20. Select the Students details and their Batch name also

```
select s.* ,b.Batch_Name AS Batch_Name from tbl_batch b JOIN tbl_student s ON
s.Batch_id=b.Batch_id ;
```

	student_id	student_name	student_gender	student_dob	student_email	course_id	batch_id	student_mark	Batch_Name
1	1	Akhil	Male	05-07-2000	akhil@gmail.com	1	1	89	2018-2020
2	2	Biju	Male	17-10-1998	biju@gmail.com	2	1	86	2018-2020
3	3	Roshan	Male	01-12-2001	roshan@gmail.com	1	1	71	2018-2020
4	4	Rina	Female	12-03-2000	rina@gmail.com	3	2	91	2019-2021
5	5	Mritu	Female	19-07-1999	mritu@gmail.com	4	2	78	2019-2021
6	6	Anu	Female	26-10-1999	anu@gmail.com	5	3	70	2020-2022
7	7	Ashik	Male	15-07-2000	ashik@gmail.com	7	4	96	2017-2020
8	8	Rony	Male	17-05-2000	rony@gmail.com	2	2	89	2019-2021

21. Select the count of male and female students in batch wise Sample output

```
SELECT b.Batch_Name,COUNT(case when Student_Gender='Male' then 1 end) AS Total_Male,
COUNT(case when Student_Gender='Female' then 1 end)As Total_Female from tbl_student s
JOIN tbl_batch b ON b.Batch_id=s.Batch_id GROUP BY b.Batch_Name;
```

	Batch_Name	Total_Male	Total_Female
1	2017-2020	1	0
2	2018-2020	3	0
3	2019-2021	1	2
4	2020-2022	0	1

22. Select the name of the BCA Student who have Maximum Mark

```
SELECT Student_Name FROM tbl_student WHERE Student_Mark=(select MAX(Student_Mark)from
tbl_student where Course_id=(select Course_id from tbl_course where
Course_shortcode='BCA'));
```

	Student_Name
1	Akhil
2	Rony

23. . Select the Male MCA Student who have Minimum Mark

```
SELECT Student_Name FROM tbl_student WHERE Student_Mark=(select MIN(Student_Mark)from
tbl_student where Course_id=(select Course_id from tbl_course where
course_shortcode='MCA') and Student_Gender='Male');
```

	Student_Name
1	Biju

24. Select the students details of UG Students who have greater than the average mark

```
SELECT * FROM tbl_student WHERE Student_Mark >(select AVG(Student_Mark)from
tbl_student where Course_id IN (select Course_id from tbl_course where
course_type='UG'))AND Course_id IN (select Course_id from tbl_course where
course_type='UG');
```

	student_id	student_name	student_gender	student_dob	student_email	course_id	batch_id	student_mark
1	1	Akhil	Male	05-07-2000	akhil@gmail.com	1	1	89
2	4	Rina	Female	12-03-2000	rina@gmail.com	3	2	91
3	7	Ashik	Male	15-07-2000	ashik@gmail.com	7	4	96

25. Select the BCA student details who have Max Mark

```
SELECT * FROM tbl_student WHERE Student_Mark=(select MAX(Student_Mark)from tbl_student
where Course_id=(select Course_id from tbl_course where course_shortcode='BCA'));
```

	student_id	student_name	student_gender	student_dob	student_email	course_id	batch_id	student_mark
1	1	Akhil	Male	05-07-2000	akhil@gmail.com	1	1	89
2	8	Rony	Male	17-05-2000	rony@gmail.com	2	2	89

26. . Select Name and Email of the students who have second highest mark

```
SELECT Student_Name,Student_Email from tbl_student where Student_Mark= (select
MAX(Student_Mark) FROM tbl_student WHERE Student_Mark < (SELECT MAX(Student_Mark) FROM
tbl_student));
```

	Student_Name	Student_Email
1	Rina	rina@gmail.com

27. . Select the Dob and Current Age of All students

```
Select Student_Name,Student_Dob,datediff(YY,Student_DOB,getdate()) as Age from
tbl_student;
```

28. . Select the Student name , Month name of birth and year of birth for all the students Sample output

```
Select Student_Name,DATENAME(MONTH,DATEADD(MONTH,MONTH(Student_DOB),-1 ) )AS
Birth_Month,YEAR(Student_DOB) AS Year_Of_Birth FROM tbl_student;
```

29. . Select the Email and Student DOB of BSW Female Student

```
select Student_Email,Student_DOB from tbl_student where Course_id=(select Course_id
from tbl_course where course_shortcode='BSW') AND Student_Gender='Female';
```

	Student_Email	Student_DOB
1	anu@gmail.com	26-10-1999

30. Select the name of all the students who have maximum mark in course wise

```
SELECT c.course_shortcode AS Course, MAX(s.Student_Mark) AS Max_Mark FROM tbl_course
c JOIN tbl_student s ON s.Course_id = c.Course_id GROUP BY c.course_shortcode;
```

	Course	Max_Mark
1	BA	96
2	BCA	89
3	BCom	91
4	BSW	70
5	MCA	89
6	MCom	78

31. Select the Details students whose year of birth less than 1995

```
Select * from tbl_student where YEAR(Student_DOB)<1995;
```

32. Select the Course short name, Batch name , total number of students in batch and Course wise Sample

33. Select details of BCA Students whose year of birth between 1992 and 1996

```
Select * from tbl_student where Course_id=(select Course_id from tbl_course where
course_shortcode='BCA') AND Student_DOB BETWEEN 1992 AND 1996;
```

34. Select the details of Male PG Students

```
SELECT * FROM tbl_student WHERE Student_Gender='Male' AND Course_id in(select
Course_id from tbl_course where course_type='PG');
```

	student_id	student_name	student_gender	student_dob	student_email	course_id	batch_id	student_mark
1	2	Biju	Male	17-10-1998	biju@gmail.com	2	1	86
2	8	Rony	Male	17-05-2000	rony@gmail.com	2	2	89

35. Select the details of BCA Students who have greater than average mark

```
SELECT * FROM tbl_student WHERE Student_Mark >(select AVG(Student_Mark)from
tbl_student where Course_id IN (select Course_id from tbl_course where
course_shortcode='BCA'))AND Course_id IN (select Course_id from tbl_course where
course_shortcode='BCA');
```

	student_id	student_name	student_gender	student_dob	student_email	course_id	batch_id	student_mark
1	1	Akhil	Male	05-07-2000	akhil@gmail.com	1	1	89

36. Select the name of student having maximum age?

```
SELECT Student_Name from tbl_student where student_dob=(select MAX(student_dob) from
tbl_student);
```

	Student_Name
1	Anu

37. Select the name and email of the BCA Students whose have Minimum age

```
SELECT Student_Name,Student_Email from tbl_student WHERE Course_id=(select Course_id
from tbl_course where course_shortcode='BCA' AND student_dob=(select MIN(student_dob)
from tbl_student));
```

	Student_Name	Student_Email
1	Roshan	roshan@gmail.com

38. Select the details of the students in descending order of their DOB

```
Select * from tbl_student ORDER BY Student_DOB DESC;
```

39. Select the details of the students have mark between 65 and 91

```
SELECT * FROM tbl_student WHERE Student_Mark BETWEEN 65 AND 91;
```

	student_id	student_name	student_gender	student_dob	student_email	course_id	batch_id	student_mark
1	1	Akhil	Male	05-07-2000	akhil@gmail.com	1	1	89
2	2	Biju	Male	17-10-1998	biju@gmail.com	2	1	86
3	3	Roshan	Male	01-12-2001	roshan@gmail.com	1	1	71
4	4	Rina	Female	12-03-2000	rina@gmail.com	3	2	91
5	5	Mritu	Female	19-07-1999	mritu@gmail.com	4	2	78
6	6	Anu	Female	26-10-1999	anu@gmail.com	5	3	70
7	8	Rony	Male	17-05-2000	rony@gmail.com	2	2	89

40. Select the details of BCA Students in their mark wise

```
SELECT * FROM tbl_student WHERE Course_id=(SELECT Course_id from tbl_course where
course_shortcode='BCA') ORDER BY Student_Mark DESC;
```

	student_id	student_name	student_gender	student_dob	student_email	course_id	batch_id	student_mark
1	1	Akhil	Male	05-07-2000	akhil@gmail.com	1	1	89
2	3	Roshan	Male	01-12-2001	roshan@gmail.com	1	1	71