

# **ASSIGNMENT- 4**

**SUBMITTED BY**

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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 Course

SELECT \* FROM tblcourse;

	Course_Id	Coursename	Courseshortname	Coursetype
1	100	Bachelor of computer applications	BCA	UG
2	101	Bachelor of Commerce	BCom	UG
3	102	Bachelor of Administration	BA	UG
4	103	Master of computer applications	MCA	PG

2.Select the name of UG courses

SELECT Coursename FROM tblcourse WHERE Coursetype='UG';

	Coursename
1	Bachelor of computer applications
2	Bachelor of Commerce
3	Bachelor of Administration

3. Select the name and short name of PG Courses

SELECT Coursename, Courseshortname FROM tblcourse WHERE Coursetype='PG';

	Coursename	Courseshortname
1	Master of computer applications	MCA

4. Select the details of batches

SELECT \* FROM tblbatch ;

	Batch_id	Batchname
1	1	2018-19
2	2	2019-20
3	3	2020-21
4	4	2021-22
5	5	2017-18

5. Select the details of students

**SELECT \* FROM tblstudent;**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1001	Anurag	anu@gmail.com	M	2000-11-03	100	1	98
2	1001	ABHI	anu@gmail.com	M	2000-12-03	101	2	95
3	1003	ANU	anu@gmail.com	F	2000-12-03	103	2	90
4	1004	AKHI	akhi@gmail.com	M	2000-12-05	103	2	80
5	1004	ARUN	arun@gmail.com	M	1999-12-06	100	2	90
6	1004	Minnu	min@gmail.com	F	1999-12-06	103	2	90
7	1007	Adhi	arun@gmail.com	M	1999-12-06	102	2	90
8	1007	Ammu	ammu@gmail.com	M	1999-12-06	102	5	90

#### 6. Insert details whose Course is MCA or BCA

**INSERT INTO tblstudent VALUES(1004,'ARUN','arun@gmail.com','M','12-06-1999',100,2,90);**

**INSERT INTO tblstudent VALUES(1004,'Minnu','min@gmail.com','F','12-06-1999',103,2,90);**

**SELECT \* FROM tblstudent;**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1001	Anurag	anu@gmail.com	M	2000-11-03	100	1	98
2	1001	ABHI	anu@gmail.com	M	2000-12-03	101	2	95
3	1003	ANU	anu@gmail.com	F	2000-12-03	103	2	90
4	1004	AKHI	akhi@gmail.com	M	2000-12-05	103	2	80
5	1004	ARUN	arun@gmail.com	M	1999-12-06	100	2	90
6	1004	Minnu	min@gmail.com	F	1999-12-06	103	2	90

#### 7. Select the count of male and female student (use if case statement)

**SELECT COUNT(case when Student\_Gender='M' then 1 end) AS Total\_Male, COUNT(case when Student\_Gender='F' then 1 end)As Total\_Female from tblstudent;**

	Total_Male	Total_Female
1	4	2

#### 8.Select the details of Female Students

**select \* from tblstudent where Student\_Gender='F';**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1003	ANU	anu@gmail.com	F	2000-12-03	103	2	90
2	1004	Minnu	min@gmail.com	F	1999-12-06	103	2	90

#### 9. Select the details Males students whose course is MCA

**select \* from tblstudent where Courseid=(select Course\_Id from tblcourse where Courseshortname='MCA') and Student\_Gender='M';**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1004	AKHI	akhi@gmail.com	M	2000-12-05	103	2	80

#### 10. Select the details BA Students

**select \* from tblstudent where Courseid=(select Course\_id from tblcourse where Courseshortname='BA') ;**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1007	Adhi	arun@gmail.com	M	1999-12-06	102	2	90

### 11. Select the details of BA students whose batch is 2017-2018

**select \* from tblstudent where Courseid=(select Course\_id from tblcourse where Courseshortname='BA') and Batchid=(select Batch\_id from tblbatch where Batchname='2017-18');**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1007	Ammu	ammu@gmail.com	M	1999-12-06	102	5	90

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

**SELECT c.Courseshortname AS Course\_name ,COUNT(\*) AS Count\_students FROM tblcourse c JOIN tblstudent s ON s.Courseid = c.Course\_id GROUP BY c.Courseshortname;**

	Course_name	Count_students
1	BA	2
2	BCA	2
3	BCom	1
4	MCA	3

### 13. Select the details UG Students

**select \* from tblstudent where Courseid IN(select Course\_id from tblcourse where Coursetype='UG');**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1001	Anurag	anu@gmail.com	M	2000-11-03	100	1	98
2	1001	ABHI	anu@gmail.com	M	2000-12-03	101	2	95
3	1004	ARUN	arun@gmail.com	M	1999-12-06	100	2	90
4	1007	Adhi	arun@gmail.com	M	1999-12-06	102	2	90
5	1007	Ammu	ammu@gmail.com	M	1999-12-06	102	5	90

### 14. Select the details of PG Students

**select \* from tblstudent where Courseid IN(select Course\_id from tblcourse where Coursetype='PG');**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1003	ANU	anu@gmail.com	F	2000-12-03	103	2	90
2	1004	AKHI	akhi@gmail.com	M	2000-12-05	103	2	80
3	1004	Minnu	min@gmail.com	F	1999-12-06	103	2	90

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

**select \* from tblstudent where Courseid =(select Course\_id from tblcourse where Courseshortname='MCA') AND Batchid=(select Batch\_id from tblbatch where Batchname='2019-20');**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1003	ANU	anu@gmail.com	F	2000-12-03	103	2	90
2	1004	AKHI	akhi@gmail.com	M	2000-12-05	103	2	80
3	1004	Minnu	min@gmail.com	F	1999-12-06	103	2	90

#### 16. Select the email and DOB of BCA Students

**select Student\_Email,Student\_DOB from tblstudent where Courseid=(select Course\_Id from tblcourse where Courseshortname='BCA');**

	Student_Email	Student_DOB
1	anu@gmail.com	2000-11-03
2	arun@gmail.com	1999-12-06

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

**select s.Student\_Name AS Student\_Name ,c.Coursename AS Course\_Name,b.Batchname from tblcourse c JOIN tblstudent s ON s.Courseid=c.Course\_id JOIN tblbatch b ON b.Batch\_id=s.Batchid;**

	Student_Name	Course_Name	Batchname
1	Anurag	Bachelor of computer applications	2018-19
2	ABHI	Bachelor of Commerce	2019-20
3	ANU	Master of computer applications	2019-20
4	AKHI	Master of computer applications	2019-20
5	ARUN	Bachelor of computer applications	2019-20
6	Minnu	Master of computer applications	2019-20
7	Adhi	Bachelor of Administration	2019-20
8	Ammu	Bachelor of Administration	2017-18

#### 18. Select Batch name and number of students

**SELECT b.Batchname AS Batch\_Name ,COUNT(\*) AS Count\_students FROM tblbatch b JOIN tblstudent s ON s.Batchid = b.Batch\_id GROUP BY b.Batchname;**

	Batch_Name	Count_students
1	2017-18	1
2	2018-19	1
3	2019-20	6

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

**select s.Student\_Name AS Student\_Name ,c.Coursename AS Course\_Name,S.Student\_Email from tblcourse c JOIN tblstudent s ON s.Courseid=c.Course\_Id ;**

	Student_Name	Course_Name	Student_Email
1	Anurag	Bachelor of computer applications	anu@gmail.com
2	ABHI	Bachelor of Commerce	anu@gmail.com
3	ANU	Master of computer applications	anu@gmail.com
4	AKHI	Master of computer applications	akhi@gmail.com
5	ARUN	Bachelor of computer applications	arun@gmail.com
6	Minnu	Master of computer applications	min@gmail.com
7	Adhi	Bachelor of Administration	arun@gmail.com
8	Ammu	Bachelor of Administration	ammu@gmail.com

**20. Select the Students details and their Batch name also**

**select s.\* ,b.Batchname AS Batch\_Name from tblbatch b JOIN tblstudent s ON s.Batchid=b.Batch\_id ;**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark	Batch_Name
1	1001	Anurag	anu@gmail.com	M	2000-11-03	100	1	98	2018-19
2	1001	ABHI	anu@gmail.com	M	2000-12-03	101	2	95	2019-20
3	1003	ANU	anu@gmail.com	F	2000-12-03	103	2	90	2019-20
4	1004	AKHI	akhi@gmail.com	M	2000-12-05	103	2	80	2019-20
5	1004	ARUN	arun@gmail.com	M	1999-12-06	100	2	90	2019-20
6	1004	Minnu	min@gmail.com	F	1999-12-06	103	2	90	2019-20
7	1007	Adhi	arun@gmail.com	M	1999-12-06	102	2	90	2019-20
8	1007	Ammu	ammu@gmail.com	M	1999-12-06	102	5	90	2017-18

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

**SELECT b.Batchname,COUNT(case when Student\_Gender='M' then 1 end) AS Total\_Male, COUNT(case when Student\_Gender='F' then 1 end)As Total\_Female from tblstudent s JOIN tblbatch b ON b.Batch\_id=s.Batchid GROUP BY b.Batchname;**

	Batchname	Total_Male	Total_Female
1	2017-18	1	0
2	2018-19	1	0
3	2019-20	4	2

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

**SELECT Student\_Name FROM tblstudent WHERE Student\_Mark=(select MAX(Student\_Mark)from tblstudent where Courseid=(select Course\_id from tblcourse where Courseshortname='BCA'));**

	Student_Name
1	Anurag

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

**SELECT Student\_Name FROM tblstudent WHERE Student\_Mark=(select MIN(Student\_Mark)from tblstudent where Courseid=(select Course\_id from tblcourse where Courseshortname='MCA') and Student\_Gender='M');**

	Student_Name
1	AKHI

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

**SELECT \* FROM tblstudent WHERE Student\_Mark > (select AVG(Student\_Mark) from tblstudent where Courseid IN (select Course\_id from tblcourse where Coursetype='UG')) AND Courseid IN (select Course\_id from tblcourse where Coursetype='UG');**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1001	Anurag	anu@gmail.com	M	2000-11-03	100	1	98
2	1001	ABHI	anu@gmail.com	M	2000-12-03	101	2	95

25. Select the BCA student details who have Max Mark

**SELECT \* FROM tblstudent WHERE Student\_Mark = (select MAX(Student\_Mark) from tblstudent where Courseid = (select Course\_id from tblcourse where Courseshortname='BCA'));**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1001	Anurag	anu@gmail.com	M	2000-11-03	100	1	98

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

**SELECT Student\_Name, Student\_Email from tblstudent where Student\_Mark = (select MAX(Student\_Mark) FROM tblstudent WHERE Student\_Mark < (SELECT MAX(Student\_Mark) FROM tblstudent));**

	Student_Name	Student_Email
1	ABHI	anu@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 tblstudent;**

	Student_Name	Student_Dob	Age
1	Anurag	2000-11-03	22
2	ABHI	2000-12-03	22
3	ANU	2000-12-03	22
4	AKHI	2000-12-05	22
5	ARUN	1999-12-06	23
6	Minnu	1999-12-06	23
7	Adhi	1999-12-06	23
8	Ammu	1999-12-06	23

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 tblstudent;

	Student_Name	Student_Dob	Age
1	Anurag	2000-11-03	22
2	ABHI	2000-12-03	22
3	ANU	2000-12-03	22
4	AKHI	2000-12-05	22
5	ARUN	1999-12-06	23
6	Minnu	1999-12-06	23
7	Adhi	1999-12-06	23
8	Ammu	1999-12-06	23

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

select Student\_Email,Student\_DOB from tblstudent where Courseid=(select Course\_id  
from tblcourse where Courseshortname='MCA') AND Student\_Gender='F';

	Student_Email	Student_DOB
1	anu@gmail.com	2000-12-03
2	min@gmail.com	1999-12-06

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

SELECT c.Courseshortname AS Course, MAX(s.Student\_Mark) AS Max\_Mark FROM  
tblcourse c JOIN tblstudent s ON s.Courseid = c.Course\_id GROUP BY  
c.Courseshortname;

	Course	Max_Mark
1	BA	90
2	BCA	98
3	BCom	95
4	MCA	90

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

Select \* from tblstudent where YEAR(Student\_DOB)<1995;

Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
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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 tblstudent where Courseid=(select Courseid from tblcourse where  
Courseshortname='BCA') AND YEAR(Student\_DOB)BETWEEN 1992 AND 1996;



Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
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### 34. Select the details of Male PG Students

**SELECT \* FROM tblstudent WHERE Student\_Gender='M' AND Courseid in(select Course\_id from tblcourse where Coursetype='PG');**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1004	AKHI	akhi@gmail.com	M	2000-12-05	103	2	80

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

**SELECT \* FROM tblstudent WHERE Student\_Mark >(select AVG(Student\_Mark)from tblstudent where Courseid IN (select Course\_id from tblcourse where Courseshortname='BCA'))AND Courseid IN (select Course\_id from tblcourse where Courseshortname='BCA');**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1001	Anurag	anu@gmail.com	M	2000-11-03	100	1	98

### 35. Select the details BA – 2019-2020 Batch Students

**SELECT \* FROM tblstudent WHERE Courseid=(select Course\_Id from tblcourse where Courseshortname='BA')AND Batchid=(SELECT Batch\_id FROM tblbatch WHERE Batchname='2019-20');**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1007	Adhi	arun@gmail.com	M	1999-12-06	102	2	90

### 36. Select the name of student having maximum age?

**SELECT Student\_Name from tblstudent ORDER BY datediff(YY,Student\_DOB,getdate()) DESC OFFSET 0 ROWS FETCH FIRST 1 ROWS ONLY;**

	Student_Name
1	ARUN

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

**SELECT Student\_Name,Student\_Email from tblstudent WHERE Courseid=(select Course\_id from tblcourse where Courseshortname='BCA') ORDER BY datediff(YY,Student\_DOB,getdate()) ASC OFFSET 0 ROWS FETCH FIRST 1 ROWS ONLY;**

	Student_Name	Student_Email
1	Anurag	anu@gmail.com

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

**Select \* from tblstudent ORDER BY Student\_DOB DESC;**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1004	AKHI	akhi@gmail.com	M	2000-12-05	103	2	80
2	1001	ABHI	anu@gmail.com	M	2000-12-03	101	2	95
3	1003	ANU	anu@gmail.com	F	2000-12-03	103	2	90
4	1001	Anurag	anu@gmail.com	M	2000-11-03	100	1	98
5	1004	ARUN	arun@gmail.com	M	1999-12-06	100	2	90
6	1004	Minnu	min@gmail.com	F	1999-12-06	103	2	90
7	1007	Adhi	arun@gmail.com	M	1999-12-06	102	2	90
8	1007	Ammu	ammu@gmail.com	M	1999-12-06	102	5	90

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

**SELECT \* FROM tblstudent WHERE Student\_Mark BETWEEN 65 AND 91;**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1003	ANU	anu@gmail.com	F	2000-12-03	103	2	90
2	1004	AKHI	akhi@gmail.com	M	2000-12-05	103	2	80
3	1004	ARUN	arun@gmail.com	M	1999-12-06	100	2	90
4	1004	Minnu	min@gmail.com	F	1999-12-06	103	2	90
5	1007	Adhi	arun@gmail.com	M	1999-12-06	102	2	90
6	1007	Ammu	ammu@gmail.com	M	1999-12-06	102	5	90

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

**SELECT \* FROM tblstudent WHERE Courseid=(SELECT Course\_id from tblcourse where Courseshortname='BCA') ORDER BY Student\_Mark DESC;**

	Student_id	Student_Name	Student_Email	Student_Gender	Student_DOB	Courseid	Batchid	Student_mark
1	1001	Anurag	anu@gmail.com	M	2000-11-03	100	1	98
2	1004	ARUN	arun@gmail.com	M	1999-12-06	100	2	90