ASSIGNMENT-4

SUBMITTED BY ANURAG K ID:51474

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_ld	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	1999
2	2	1999
3	3	1998
4	4	1999

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

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

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

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

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

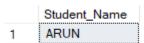
35. Select the details BA – 2019-2020 Batch Students

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;



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	М	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