

Assinment - 2

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VIT VELLORE

Google drive folder link-

<https://drive.google.com/drive/folders/16euOe-9R2a4Fjb885r5wgLe7u3H-X9gJ?usp=sharing>

MySQL/MongoDB

MySQL-

//create –

```
mysql> create table faculty(id int NOT NULL AUTO_INCREMENT, Name  
varchar(60) NOT NULL, Age int,Subject varchar(25),Dept varchar(25),  
Active TINYINT, PRIMARY KEY(id) );
```

Query OK, 0 rows affected (0.03 sec)

```
mysql> show tables;
```

```
mysql> insert into faculty values(1,"Sanjay  
Gupta",43,"maths","Science",1);
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into faculty values(2,"Naman  
Sharma",28,"Accounts","Commerce",1);
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into faculty values(3,"Arjun  
Dubey",34,"Physics","Science",0);
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into faculty values(4,"Roshni Singh",51,"Geography","Humanities",0);
```

Query OK, 1 row affected (0.00 sec)

```
mysql> insert into faculty(name,age,active) values("Ram prabhakar Singh",35,1);
```

Query OK, 1 row affected (0.01 sec)

//Read –

```
mysql> Select * from faculty;
```

```
+---+-----+---+-----+-----+---+
| id | Name          | Age | Subject | Dept   | Active |
+---+-----+---+-----+-----+---+
| 1 | Sanjay Gupta   | 43 | maths   | Science | 1 |
| 2 | Naman Sharma  | 28 | Accounts | Commerce | 1 |
| 3 | Arjun Dubey   | 34 | Physics  | Science  | 0 |
| 4 | Roshni Singh  | 51 | Geography | Humanities | 0 |
| 5 | Ram prabhakar Singh | 35 | NULL    | NULL     | 1 |
+---+-----+---+-----+-----+---+
```

5 rows in set (0.00 sec)

//Update

```
mysql> update faculty set subject="History" where id = 5;
```

Query OK, 1 row affected (0.01 sec)

//table creation for left join -

```
mysql> create table students(id int primary key,student_name
varchar(50),age int,subject varchar(50),dept varchar(25));
```

Query OK, 0 rows affected (0.02 sec)

```
mysql> insert into students values(1,"ajay
verma",17,"maths","science");
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into students values(2,"subhash
goel",17,"physics","science");
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into students values(3,"vidita
kumari",17,"History","Humanities");
```

Query OK, 1 row affected (0.01 sec)

```
mysql> select * from students;
```

```
+----+-----+-----+-----+-----+
| id | student_name | age | subject | dept |
+----+-----+-----+-----+-----+
| 1 | ajay verma   | 17 | maths   | science |
| 2 | subhash goel | 17 | physics | science |
| 3 | vidita kumari | 17 | History | Humanities |
| 4 | jai sinha    | 18 | accounts | Commerce |
+----+-----+-----+-----+-----+
```

4 rows in set (0.00 sec)

```
mysql> select faculty.name as teacher, students.student_name from  
faculty left join students on faculty.Subject = students.subject;
```

teacher	student_name
Sanjay Gupta	ajay verma
Naman Sharma	jai sinha
Arjun Dubey	subhash goel
Roshni Singh	NULL
Ram prabhakar Singh	vidita kumari

5 rows in set (0.00 sec)

LEFT JOIN operation on table Students and Faculty -

```
mysql> create table students(id int primary key,student_name varchar(50),age int,subject varchar(50),dept varchar(25));
Query OK, 0 rows affected (0.02 sec)

mysql> insert into students values(1,"ajay verma",17,"maths","science");
Query OK, 1 row affected (0.01 sec)

mysql> insert into students values(2,"subhash goel",17,"physics","science");
Query OK, 1 row affected (0.01 sec)

mysql> insert into students values(3,"vidita kumari",17,"History","Humanities");
Query OK, 1 row affected (0.01 sec)

mysql> insert into students values(3,"jai sinha",18,"accounts","Commerce");
ERROR 1062 (23000): Duplicate entry '3' for key 'students.PRIMARY'
mysql> insert into students values(4,"jai sinha",18,"accounts","Commerce");
Query OK, 1 row affected (0.01 sec)

mysql> select * from students;
+----+-----+-----+-----+-----+
| id | student_name | age | subject | dept |
+----+-----+-----+-----+-----+
| 1 | ajay verma | 17 | maths | science |
| 2 | subhash goel | 17 | physics | science |
| 3 | vidita kumari | 17 | History | Humanities |
| 4 | jai sinha | 18 | accounts | Commerce |
+----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> select faculty.name as teacher, students.student_name from faculty left join students on faculty.Subject = student.subject;
ERROR 1054 (42S22): Unknown column 'student.subject' in 'on clause'
mysql> select faculty.name as teacher, students.student_name from faculty left join students on faculty.Subject = students.subject;
+-----+-----+
| teacher | student_name |
+-----+-----+
| Sanjay Gupta | ajay verma |
| Naman Sharma | jai sinha |
| Arjun Dubey | subhash goel |
| Roshni Singh | NULL |
| Ram prabhakar Singh | vidita kumari |
+-----+-----+
5 rows in set (0.00 sec)
```

MongoDB –

```
//crate and use database by - use school
//to create collection create Collection
db.createCollection("Students");

//insert one data -
db.Faculty.insertOne({
  Name: "Sachin Singh",
  Age: 33,
  Subject: "Physics",
  Dept: "Science",
  Active: true,
});

db.Faculty.insertOne({
  Name: "Chandan Mahto",
```

```
Age: 42,  
Subject: "Maths",  
Dept: "Science",  
Active: true,  
});  
  
//insert many Data  
db.Faculty.insertMany([  
  {  
    Name: "Arnav kapoor",  
    Age: 30,  
    Subject: "Accounts",  
    Dept: "Commerce",  
    Active: true,  
  },  
  {  
    Name: "Abhay Sinha",  
    Age: 40,  
    Subject: "Chemistry",  
    Dept: "Science",  
    Active: true,  
  },  
  {  
    Name: "Garv Choudhary",  
    Age: 49,  
    Subject: "History",  
    Dept: "Humanities",  
    Active: false,  
  },  
  {  
    Name: "Kaushal Kumar",  
    Age: 53,  
    Subject: "Biology",  
    Dept: "Science",  
    Active: false,  
  },  
]);  
  
//read document  
db.Faculty.findOne();  
db.Faculty.findMany();  
  
// delete data
```

```
db.Faculty.deleteOne({"Active":false,"Age":{"$gt":50}})
db.Faculty.deleteMany({"Active":false})

//update document
db.Faculty.updateOne({"Active":false},{$set:{"Name":"Garvit Choudhary"}})
```