1)Convert bookstore.xml into json

```
<bookstore>
  <book>
    <title>Harry Potter</title>
    <author>J.K. Rowling</author>
    <price>29.99</price>
    <available>true</available>
  </book>
  <book>
    <title>The Hobbit</title>
    <author>J.R.R. Tolkien</author>
    <price>19.99</price>
    <available>false</available>
  </book>
</bookstore>
here is the conversion of the given XML into JSON format
 "bookstore": {
 "book": [
   "title": "Harry Potter",
   "author": "J.K. Rowling",
   "price": 29.99,
   "available": true
  },
  {
```

```
"title": "The Hobbit",

"author": "J.R.R. Tolkien",

"price": 19.99,

"available": false

}

]

}
```

2)Write a query to give inner join, left outer join, right outer join and full outer join

```
create table dep(D_ID varchar(30) PRIMARY

KEY,D_NAME varchar(30));

Query OK, 0 rows affected (0.04 sec)

create table emp(E_ID varchar(30) PRIMARY KEY,E_FName varchar(30),E_Lname varchar(30),D_ID varchar(30),FOREIGN KEY (D_ID) REFERENCES dep(D_ID));

Query OK, 0 rows affected (0.07 sec)
```

1) INNER JOIN

4 rows in set (0.00 sec)

2) LEFT OUTER JOIN

3) RIGHT OUTER JOIN

```
mysql> select e.E_ID,e.E_FName,e.E_Lname,d.D_NAME from emp e RIGHT OUTER JOI

N dep d ON e.D_ID=d.D_ID;

+-----+

| E_ID | E_FName | E_Lname | D_NAME |
```

5 rows in set (0.00 sec)

4) FULL OUTER JOIN

select e.E_ID,e.E_FName,e.E_Lname,d.D_NAME from emp e LEFT OUTER JOIN dep d ON e.D_ID=d.D_ID UNION select e.E_ID,e.E_FName,e.E_Lname,d.D_NAME from emp e RIGHT OUTER JOIN dep d ON e.D_ID=d.D_ID;

```
+----+

| E_ID | E_FName | E_Lname | D_NAME |

+----+

| 1 | john | doe | HR |

| 2 | jane | smith | sales |

| 3 | mike | johnson | IT |

| 4 | emily | davis | HR |

| NULL | NULL | marketing |

+----+

5 rows in set (0.01 sec)
```

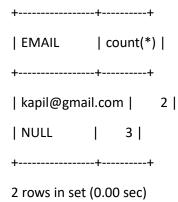
Find Duplicate records

1) Based on firstName

```
select E_FNAME,count(*) from emp GROUP BY E_FNAME HAVING COUNT(*)>1;
+-----+
| E_FNAME | count(*) |
+-----+
| john | 2 |
+-----+
1 row in set (0.00 sec)
```

2) based on email

select EMAIL,count(*) from emp GROUP BY EMAIL HAVING COUNT(*)>1;



3) Based on firstname and Last Name

```
select E_FNAME,E_Lname,count(*) from emp GROUP BY E_FNAME,E_Iname HAV

ING COUNT(*)>1;

+-----+

| E_FNAME | E_Lname | count(*) |

+-----+

| john | davis | 2 |

+-----+

1 row in set (0.00 sec)
```

4) Based on firstname and email

```
select E_FNAME,EMAIL,count(*) from emp GROUP BY E_FNAME,EMAIL HAVING

COUNT(*)>1;

Empty set (0.00 sec)

mysql> select * from emp;
+-----+-----+-----+-----+

| E_ID | E_FName | E_Lname | D_ID | EMAIL |
+-----+------+-------+-------+

| 1 | john | doe | 10 | kapil@gmail.com |
```

6 rows in set (0.00 sec)