1)Convert bookstore.xml into json

.xml file

```
<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>
```

Json

```
{
  "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.

1) INNER JOIN

Query:

```
SELECT e.employee_id, e.first_name, e.last_name, d.department_id,
d.department_name

FROM Employee e

INNER JOIN Department d

ON e.department_id = d.department_id;
```

Output:

employee_id	first_name	last_name	department_id	department_name
1	John	Doe	10	HR
2	Jane	Smith	20	Sales
3	Mike	Johnson	30	IT

employee_id	first_name	last_name	department_id	department_name
4	Emily	Davis	10	HR

2) LEFT OUTER JOIN

Query:

```
SELECT e.employee_id, e.first_name, e.last_name, d.department_id,
d.department_name

FROM Employee e

LEFT OUTER JOIN Department d

ON e.department_id = d.department_id;
```

Output:

employee_id	first_name	last_name	department_id	department_name
1	John	Doe	10	HR
2	Jane	Smith	20	Sales
3	Mike	Johnson	30	IT
4	Emily	Davis	10	HR

3) RIGHT OUTER JOIN

Query:

```
SELECT e.employee_id, e.first_name, e.last_name, d.department_id,
d.department_name

FROM Employee e

RIGHT OUTER JOIN Department d

ON e.department_id = d.department_id;
```

Output:

employee_id	first_name	last_name	department_id	department_name
1	John	Doe	10	HR
4	Emily	Davis	10	HR

employee_id	first_name	last_name	department_id	department_name
2	Jane	Smith	20	Sales
3	Mike	Johnson	30	IT
NULL	NULL	NULL	40	Marketing

4) FULL OUTER JOIN

Query:

```
SELECT e.employee_id, e.first_name, e.last_name, d.department_id,
d.department_name

FROM Employee e

FULL OUTER JOIN Department d

ON e.department_id = d.department_id;
```

Output:

employee_id	first_name	last_name	department_id	department_name
1	John	Doe	10	HR
4	Emily	Davis	10	HR
2	Jane	Smith	20	Sales
3	Mike	Johnson	30	IT
NULL	NULL	NULL	40	Marketing

3)Write a query to find duplicate records

1) Based on `first_name`

Query:

```
SELECT first_name, COUNT(*)

FROM Employee

GROUP BY first_name

HAVING COUNT(*) > 1;
```

Result:

first_name	COUNT(*)
John	2

2) Based on `email`

Query:

SELECT email, COUNT(*)

FROM Employee

GROUP BY email

HAVING COUNT(*) > 1;

Result:

email	COUNT(*)
john.doe@example.com	2

3) Based on `first_name` and `last_name`

Query:

SELECT first_name, last_name, COUNT(*)

FROM Employee

GROUP BY first_name, last_name

HAVING COUNT(*) > 1;

Result:

first_name	last_name	COUNT(*)
John	Doe	2

4) Based on `first_name` and `email`

Query:

SELECT first_name, email, COUNT(*)

FROM Employee

```
GROUP BY first_name, email

HAVING COUNT(*) > 1;
```

Result:

first_name	email	COUNT(*)
John	john.doe@example.com	2