1. **Convert bookstore .xml into .json**

**XML Data**

<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 Data**

{

"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**

**a) INNER JOIN**

The INNER JOIN will return records that have matching values in both tables.

SELECT e.employee\_id, e.first\_name, e.last\_name, d.department\_name

FROM employee e

INNER JOIN department d

ON e.department\_id = d.department\_id;

**b) LEFT OUTER JOIN**

The LEFT OUTER JOIN will return all records from the left table (employee), and the matched

records from the right table (department). The result is NULL from the right side if there is no

match.

SELECT e.employee\_id, e.first\_name, e.last\_name, d.department\_name

FROM employee e

LEFT OUTER JOIN department d

ON e.department\_id = d.department\_id;

**c) RIGHT OUTER JOIN**

The RIGHT OUTER JOIN will return all records from the right table (department), and the

matched records from the left table (employee). The result is NULL from the left side if there

is no match

SELECT e.employee\_id, e.first\_name, e.last\_name, d.department\_name

FROM employee e

RIGHT OUTER JOIN department d

ON e.department\_id = d.department\_id;

**d) FULL OUTER JOIN**

The FULL OUTER JOIN will return all records when there is a match in either left (employee)

or right (department) table records.

SELECT e.employee\_id, e.first\_name, e.last\_name, d.department\_name

FROM employee e

FULL OUTER JOIN department d

ON e.department\_id = d.department\_id;

**3. Write a query to find duplicate records**

**a) Based on first\_name**

SELECT first\_name, COUNT(\*)

FROM employees

GROUP BY first\_name

HAVING COUNT(\*) > 1;

**b) Based on email**

SELECT email, COUNT(\*)

FROM employees

GROUP BY email

HAVING COUNT(\*) > 1;

**c)Based on first\_name and last\_name**

SELECT first\_name, last\_name, COUNT(\*)

FROM employees

GROUP BY first\_name, last\_name

HAVING COUNT(\*) > 1;

**d)Based on the first\_name and email**

SELECT first\_name, email, COUNT(\*)

FROM employees

GROUP BY first\_name, email

HAVING COUNT(\*) > 1;