**Experiment-6**

**AIM: Perform Join operations for following queries.**

**Given Schema:**

**Student(student\_id, name)**

**courses ( course\_id, course\_name);**

**enrollments ( enrollment\_id, student\_id ,course\_id )**

**Students Table:**

| **student\_id** | **name** |
| --- | --- |
| 1 | Alice |
| 2 | Bob |
| 3 | Charlie |
| 4 | David |

**Courses Table:**

| **course\_id** | **course\_name** |
| --- | --- |
| 101 | Mathematics |
| 102 | Physics |
| 103 | Chemistry |
| 104 | Biology |

**Enrollments Table:**

| **enrollment\_id** | **student\_id** | **course\_id** |
| --- | --- | --- |
| 1 | 1 | 101 |
| 2 | 1 | 102 |
| 3 | 2 | 103 |
| 4 | 3 | 101 |
| 5 | 4 | 104 |

1. Write a query to fetch the student names and their corresponding course names using INNER JOIN.
2. Write a query to list all students along with their course names, including students who are not enrolled in any course using LEFT JOIN.
3. Write a query to list all courses along with the names of students enrolled in them, including courses with no students enrolled, using RIGHT JOIN.
4. Write a query to list all students and courses, including students not enrolled in any courses and courses with no students enrolled, using FULL OUTER JOIN.
5. Write a query to find the names of students who are enrolled in more than one course.
6. Write a query to list all courses that have no students enrolled
7. Write a query to find all students who are not enrolled in any course.

Write a query to find the course(s) with the maximum number of enrollments.

Write a query to find pairs of students who are enrolled in exactly two of the same courses.