4)

1 Retrieve all students from the "students" table. Query: SELECT \* FROM students;

Result: This query will return all the rows and columns from the "students" table.

2: Retrieve all courses from the "courses" table. Query: SELECT \* FROM courses;

Result: This query will return all the rows and columns from the "courses" table.

3: Retrieve all courses taken by a specific student.

Query: SELECT courses.course\_name FROM courses INNER JOIN student\_courses ON courses.course\_id = student\_courses.course\_id WHERE student\_courses.student\_id = [insert student ID here];

Result: This query will return the names of all the courses taken by the student with the specified ID.

4: Retrieve all students who have taken a specific course. Query: SELECT students.student\_name FROM students INNER JOIN student\_courses ON students.student\_id = student\_courses.student\_id WHERE student\_courses.course\_id = [insert course ID here]; Result: This query will return the names of all the students who have taken the course with the specified ID.

5: Retrieve the number of students enrolled in each course. Query: SELECT courses.course\_name, COUNT(student\_courses.student\_id) AS num\_students FROM courses INNER JOIN student\_courses ON courses.course\_id = student\_courses.course\_id GROUP BY courses.course\_name;

Result: This query will return the name of each course and the number of students enrolled in that course.