1. Consider the given database schema:

**Student (studentid , studentname,instructorid,studentcity)**

**Instructor (instructorid,Instructorname,instructorcity,specialization)**

**Use all types of Joins and set opoeration**

1. Add primary and foreign keys

2. Find the instructor of each student.

2. Find the student who is not having any instructor.

3. Find the student who is not having any instructor as well as instructor who is not having student.

4. Find the students whose instructor’s specialization is computer.

**5.** Create a view containing total number of students whose instructor belongs to “Pune**”.**

1. **Consider following database. Execute each query given using join and subqueries.**

CREATE TABLE departments (

department\_id INT (11) AUTO\_INCREMENT PRIMARY KEY,

department\_name VARCHAR (30) NOT NULL,

location\_id INT (11) DEFAULT NULL,

);

CREATE TABLE employees (

employee\_id INT (11) AUTO\_INCREMENT PRIMARY KEY,

first\_name VARCHAR (20) DEFAULT NULL,

last\_name VARCHAR (25) NOT NULL,

email VARCHAR (100) NOT NULL,

phone\_number VARCHAR (20) DEFAULT NULL,

hire\_date DATE NOT NULL,

job\_id INT (11) NOT NULL,

salary DECIMAL (8, 2) NOT NULL,

manager\_id INT (11) DEFAULT NULL,

department\_id INT (11) DEFAULT NULL,

FOREIGN KEY (department\_id) REFERENCES departments (department\_id) ON DELETE CASCADE ON UPDATE CASCADE,

FOREIGN KEY (manager\_id) REFERENCES employees (employee\_id)

);

1. Find all employees who locate in the location with the id 1700
2. Find all employees who do not locate at the location 1700
3. Finds the employees who have the highest salary
4. Finds all employees who salaries are greater than the average salary of all employees
5. Finds all departments which have at least one employee with the salary is greater than 10,000
6. Finds all departments that do not have any employee with the salary greater than 10,000
7. Finds all employees whose salaries are greater than the lowest salary of every department
8. Finds all employees whose salaries are greater than or equal to the highest salary of every department
9. Finds the salaries of all employees, their average salary, and the difference between the salary of each employee and the average salary