

PRACTICAL:-4

► Write down the relational algebra for the student table.

- Display the detail of students whose RollNo is less than 104.
- Display the detail of students having SPI more than 8.
- Display the detail of students belongs to "CE" Branch having SPI less than 8.
- Display the detail of students belongs to either "CE" or "ME" Branch.
- Display the detail of students whose SPI between 6 and 9.

Student			
<u>RollNo</u>	<u>Name</u>	<u>Branch</u>	<u>SPI</u>
101	Raj	CE	6
102	Meet	ME	8
103	Harsh	EE	7
104	<u>Punit</u>	CE	9

► Write down the relational algebra for the employee table.

- Display the detail of all employee.
- Display the detail of employee whose Salary more than 10000.
- Display the detail of employee belongs to "HR" Dept having Salary more than 20000.
- Display the detail of employee belongs to either "HR" or "Admin" Dept.
- Display the detail of employee whose Salary between 10000 and 25000 and belongs to "HR" Dept.

Employee			
<u>EmpID</u>	<u>Name</u>	<u>Dept</u>	<u>Salary</u>
101	<u>Nilesh</u>	Sales	10000
102	<u>Mayur</u>	HR	25000
103	<u>Hardik</u>	HR	15000
104	Ajay	Admin	20000

► Write down the relational algebra for the student table.

- Display RollNo, Name and SPI of all students belongs to "CE" Branch.
- List the Name of students with their Branch whose SPI is more than 8 and belongs to "CE" Branch.
- List the Name of students along with their Branch and SPI who belongs to either "CE" or "ME" Branch and having SPI more than 8.
- Display the Name of students with their Branch name whose SPI between 7 and 9.

Student			
<u>RollNo</u>	<u>Name</u>	<u>Branch</u>	<u>SPI</u>
101	Raj	CE	6
102	Meet	ME	8
103	Harsh	EE	7
104	<u>Punit</u>	CE	9

► Write down the relational algebra for the employee table.

- Display the Name of employee belong to "HR" Dept and having salary more than 20000.
- Display the Name of all "Admin" and "HR" Dept's employee.
- List the Name of employee with their Salary who belongs to "HR" or "Admin" Dept having salary more than 15000.
- Display the Name of employee along with their Dept name whose salary between 15000 and 30000.

Employee			
<u>EmpID</u>	<u>Name</u>	<u>Dept</u>	<u>Salary</u>
101	<u>Nilesh</u>	Sales	10000
102	<u>Mayur</u>	HR	25000
103	<u>Hardik</u>	HR	15000
104	Ajay	Admin	20000

► Relations

- Student (Rno, Sname, Address, City, Mobile)
- Department (Did, Dname)
- Academic (Rno, Did, SPI, CPI, Backlog)
- Guide (Rno, PName, Fid)
- Faculty (Fid, Fname, Subject, Did, Salary)

- List the **name of students** with their **department name** having **backlog 0**.
- List the **name of faculties** with their **department name** and **salary** having **salary more than 25000** and **belongs to "CE" department**.
- List the **name of all faculties** of **"CE" and "ME" department** whose **salary is more than 50000**.
- Display the **students name** with their **project name** of all **"CE" department's** students whose **guide is "Z.Z. Patel"**.
- Display the **name of faculties** with their **department name** who belongs to **"CE" department** and **tough "CPU" subject** having **salary more than 25000**.
- List the **name of students** with their **department name** doing **project "Hackathon"** under **guide "I. I. Shah"**.