

Lab-10Employee Information system

| <u>name</u> | <u>attribute</u> | <u>Primary key</u> |
|----------------------|---|--------------------|
| <u>Employee</u> | <u>Eno,ename, sex, eplace, salary, dob, doj</u> | <u>Eno</u> |
| <u>Skill</u> | <u>Scode, skillcat</u> | <u>Scode</u> |
| <u>Department</u> | <u>Dno, dname, hod</u> | <u>Dno</u> |
| <u>qualification</u> | <u>Qcode, degree, discipline</u> | <u>qcode</u> |

Employee

| <u>attribute</u> | <u>Data type</u> |
|------------------|------------------|
| <u>Eno</u> | <u>Varchar</u> |
| <u>Ename</u> | <u>Varchar</u> |
| <u>Sex</u> | <u>Varchar</u> |
| <u>Eplace</u> | <u>Varchar</u> |
| <u>Salary</u> | <u>Number</u> |
| <u>Dob</u> | <u>Date</u> |
| <u>doj</u> | <u>date</u> |

| <u>eno</u> | <u>ename</u> | <u>sex</u> | <u>eplace</u> | <u>salary</u> | <u>dob</u> | <u>doj</u> |
|------------|--------------|------------|---------------|---------------|------------|------------|
| G01 | William | M | Balasore | 8000 | 12-jan-69 | 10-apr-91 |
| G02 | Prasanta | M | Kolkata | 12000 | 10-mar-65 | 20-may-87 |
| G03 | Sanchita | F | Pune | 16000 | 09-feb-62 | 11-jun-84 |
| G04 | Aniruddha | M | Jamshedpur | 12000 | 20-sep-70 | 12-oct-93 |
| G05 | Geeta | F | Nagpur | 16000 | 25-oct-60 | 12-nov-88 |
| Ng01 | William | M | Jamshedpur | 6000 | 10-feb-55 | 12-mar-75 |
| Ng02 | Sarathi | M | Chandipur | 4000 | 08-apr-70 | 12-feb-88 |
| Ng03 | Murugan | M | Kochi | 5000 | 10-mar-66 | 12-jun-87 |
| Ng04 | Shar mili | F | Mumbai | 5500 | 20-oct-77 | 12-nov-98 |
| Ng05 | Pramila | F | Bhubaneshwar | 6000 | 06-jan-72 | 12-feb-93 |
| Ng06 | Sandhya | F | Delhi | 6500 | 10-apr-68 | 11-mar-84 |
| Ng07 | pradip | m | kota | 4500 | 24-jun-74 | 20-feb-96 |

Skill

| <u>attributes</u> | <u>Data type</u> |
|-------------------|----------------------------------|
| <u>Scode</u> | <u>Varchar</u> |
| <u>Skillcat</u> | <u>Varchar (skill category)</u> |

| <u>scode</u> | <u>skillcat</u> |
|--------------|-----------------|
| S01 | Programmer |
| S02 | DbA |
| S03 | Radar |
| S04 | admistration |

Department

| <u>attribute</u> | <u>Data type</u> |
|------------------|------------------|
| <u>Dno</u> | <u>Varchar</u> |
| <u>Dname</u> | <u>Varchar</u> |
| <u>Hod</u> | <u>varchar</u> |

| | | |
|------------|--------------|------------|
| <u>dno</u> | <u>dname</u> | <u>hod</u> |
| D01 | Computer | G05 |
| D02 | Instrument | G04 |
| D03 | Admin | G02 |

Qualification

| <u>Attribute</u> | <u>Data type</u> |
|-------------------|------------------|
| <u>Qcode</u> | <u>Varchar</u> |
| <u>Degree</u> | <u>Varchar</u> |
| <u>discipline</u> | <u>varchar</u> |

| | | |
|--------------|---------------|-------------------|
| <u>qcode</u> | <u>degree</u> | <u>discipline</u> |
| Q01 | BA | ENGLISH |
| Q02 | MBA | FINANCE |
| Q03 | BTECH | ELECTRICAL |
| Q04 | MTECH | COMPUTER |
| Q05 | LLB | LAW |
| Q06 | BSC | MATHS |
| Q07 | MCOM | ECONOMICS |
| Q08 | MA | PUBLIC ADMIN |

Relationship

| <u>relations</u> | <u>Primary key</u> | <u>Foreign key</u> | <u>Reference entity</u> | <u>Relationship attribute</u> |
|------------------|--------------------|--------------------|--------------------------------|-------------------------------|
| <u>Works_on</u> | <u>Eno+dno</u> | <u>Eno→dno</u> | <u>Employee, department</u> | <u>Null</u> |
| <u>Posses</u> | <u>Eno+scode</u> | <u>Eno→scode</u> | <u>Employee, Skill</u> | <u>Null</u> |
| <u>Keeping</u> | <u>Eno+qcode</u> | <u>Eno→qcode</u> | <u>Employee, qualification</u> | <u>null</u> |

Works_on

| | |
|------------|------------|
| <u>eno</u> | <u>dno</u> |
| G01 | D01 |
| G02 | D03 |
| G03 | D02 |
| G04 | D02 |
| G05 | D01 |

| | |
|-------------|------------|
| <u>NG01</u> | <u>D03</u> |
| <u>NG02</u> | <u>D03</u> |
| <u>NG03</u> | <u>D01</u> |
| <u>NG04</u> | <u>D01</u> |
| <u>NG05</u> | <u>D02</u> |
| <u>NG06</u> | <u>D02</u> |
| <u>NG07</u> | <u>D03</u> |

Posses

| | |
|-------------|--------------|
| <u>eno</u> | <u>scode</u> |
| <u>G01</u> | <u>S01</u> |
| <u>G01</u> | <u>S02</u> |
| <u>G02</u> | <u>S04</u> |
| <u>G03</u> | <u>S03</u> |
| <u>G03</u> | <u>S01</u> |
| <u>G04</u> | <u>S03</u> |
| <u>G05</u> | <u>S02</u> |
| <u>NG01</u> | <u>S01</u> |
| <u>NG01</u> | <u>S04</u> |
| <u>NG02</u> | <u>S04</u> |
| <u>NG03</u> | <u>S01</u> |
| <u>NG05</u> | <u>S03</u> |
| <u>NG06</u> | <u>S03</u> |
| <u>NG07</u> | <u>S02</u> |

Keeping

| | |
|-------------|--------------|
| <u>eno</u> | <u>qcode</u> |
| <u>G01</u> | <u>Q03</u> |
| <u>G01</u> | <u>Q04</u> |
| <u>G02</u> | <u>Q02</u> |
| <u>G02</u> | <u>Q05</u> |
| <u>G03</u> | <u>Q03</u> |
| <u>G04</u> | <u>Q04</u> |
| <u>G05</u> | <u>Q04</u> |
| <u>Ng01</u> | <u>Q01</u> |
| <u>Ng02</u> | <u>Q07</u> |
| <u>Ng03</u> | <u>Q06</u> |
| <u>Ng04</u> | <u>Q03</u> |
| <u>Ng05</u> | <u>Q06</u> |
| <u>Ng06</u> | <u>Q06</u> |
| <u>Ng07</u> | <u>Q03</u> |

Queries

- 1) list the department in which employee with skill in 'radar' is working

- 2) list the employee name, department name in which a female employee having btech qualification is working.
- 3) List the employee number, department number, qualification code and skill code of the youngest male employee.
- 4) List the employee name, department name of the employee whose employee code starts with the letter "G" has served maximum number of years in the organisation and having the skill of "programmer".
- 5) List the name of female employees who are "bsc" degree holder and having age of more than 20 years.
- 6) List the qualification of the HOD of "Computer "department.
- 7) List the employee name, department name, skill, qualification of the employee who is getting minimum salary.
- 8) List the employee name, qualification of teh employee who has joined service at the youngest age.
- 9) List the employee name who possess more than one qualification.
- 10) List teh employee name who belongs to "admin" department and having skill in administration.
- 11) List the skills of that employee who is drawing maximum salary.
- 12) List the department details of that employee who belongs to city Jamshedpur.
- 13) List the name, qualification, discipline and salary of that employee who is head of instrument department.
- 14) List the name, sex, native place, salary, qualification and skills of that employee who has joined the service at very young age.
- 15) List the employee wise expenditure of the organisation of those employees having mtech degree.
- 16) List the name, qualification and skills of the youngest male employee.
- 17) Lsit the department names of the employees who are born after the year 1970.