CENG 302 Homework 4

# Q1)

**HasPhone**

|  |  |  |
| --- | --- | --- |
| PhoneID | Name | PhoneNo |

**HealthCenter**

|  |  |
| --- | --- |
| Name | Address |

**EmpWorksIn**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| EmpID | Name | EmpName | Sex | B\_day | Salary |

**EmpHasAddress**

|  |  |  |
| --- | --- | --- |
| EmpID | AddressID | Address |

**EmpHasPhone**

|  |  |  |
| --- | --- | --- |
| EmpID | PhoneID | PhoneNo |

**Nurse**

|  |  |
| --- | --- |
| EmpID | Speciality |

**Doctor**

|  |  |
| --- | --- |
| EmpID | Speciality |

**Patients**

|  |  |  |  |
| --- | --- | --- | --- |
| PatientID | Name | Sex | B\_day |

**DocsLooksPatients**

|  |  |
| --- | --- |
| EmpID | PatientID |

**PatientHasAddress**

|  |  |  |
| --- | --- | --- |
| PatientID | AddressID | Address |

**PatientHasPhone**

|  |  |  |
| --- | --- | --- |
| PatientID | PhoneID | PhoneNo |

**PatientHasMedicalRecord**

|  |  |  |  |
| --- | --- | --- | --- |
| PatientID | RecordNo | Type | Date |

**Inpatient**

|  |
| --- |
| PatientID |

**Outpatient**

|  |
| --- |
| PatientID |

**VisitorsVisiting**

|  |  |  |  |
| --- | --- | --- | --- |
| PatientID | Name | Relationship | B\_day |

# Q2)

**HealthCenter**

|  |  |
| --- | --- |
| Name | Address |

**Phones**

|  |  |
| --- | --- |
| PhoneID | PhoneNo |

**Addresses**

|  |  |
| --- | --- |
| AddressID | Address |

**HealthCenterHasPhone**

|  |  |
| --- | --- |
| HCName | PhoneID |

**Employee**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EmpID | Name | Sex | B\_day | Salary |

**EmpWorksInHC**

|  |  |
| --- | --- |
| EmpID | HCName |

**EmpHasPhone**

|  |  |
| --- | --- |
| EmpID | PhoneID |

**EmpHasAddress**

|  |  |
| --- | --- |
| EmpID | AddressID |

**Nurse**

|  |  |
| --- | --- |
| EmpID | Speciality |

**Doctor**

|  |  |
| --- | --- |
| EmpID | Speciality |

**Patients**

|  |  |  |  |
| --- | --- | --- | --- |
| PatientID | Name | Sex | B\_day |

**DocsLooksPatients**

|  |  |
| --- | --- |
| EmpID | PatientID |

**PatientHasPhone**

|  |  |
| --- | --- |
| PatientID | PhoneID |

**PatientHasAddress**

|  |  |
| --- | --- |
| PatientID | AddressID |

**MedicalRecords**

|  |  |  |
| --- | --- | --- |
| RecordNo | Type | Date |

**PatientHasMedicalRec**

|  |  |
| --- | --- |
| PatientID | RecordNo |

**Inpatient**

|  |
| --- |
| PatientID |

**Outpatient**

|  |
| --- |
| PatientID |

**Vsitors**

|  |  |  |
| --- | --- | --- |
| Name | Relationship | B\_day |

**VsitorsVisiting**

|  |  |
| --- | --- |
| PatientID | Name |

# Q3)

1. SELECT \* FROM employee;
2. SELECT \* FROM employee, nurses WHERE employee.EmpID<>nurses.EmpID ;
3. SELECT docs.\*,COUNT(DISTINCT vsitorsvisiting.name) as CountVisitedPatient FROM docs,docslookspatients,Inpatiens,vsitorsvisiting

WHERE docs.EmpID=docslookspatients.EmpID AND docslookspatients.PatientID=Inpatiens.PatientID AND Inpatiens.PatientID=vsitorsvisiting.PatientID

GROUP BY vsitorsvisiting.PatientID

HAVING COUNT(DISTINCT vsitorsvisiting.name)>=1;

1. SELECT \* FROM employee as E1,docs

WHERE docs.EmpID=E1.EmpID AND

(2)=(SELECT COUNT(DISTINCT(E2.Salary)) FROM employee as E2,docs

WHERE docs.EmpID=E2.EmpID AND E2.Salary>E1.Salary);

1. SELECT D.\*, COUNT(DISTINCT DP.PatientID) as LookedPatients

FROM DOCS AS d,docslookspatients as DP ,patients as P ,patienthasphone as PP

WHERE DP.PatientID=P.PatientID AND P.PatientID=PP.PatientID

GROUP BY DP.EmpID

HAVING COUNT(DISTINCT DP.PatientID)>=2 AND

DP.EmpID = ANY (SELECT DP.EmpID

FROM docslookspatients as DP ,patients as P ,patienthasphone as PP

WHERE DP.PatientID=P.PatientID AND P.PatientID=PP.PatientID

GROUP BY PP.PatientID

HAVING COUNT(DISTINCT PP.PhoneID)>=2);

1. SELECT P.\* FROM docs as D,docslookspatients as DP,patients as P

WHERE D.EmpID=DP.EmpID AND DP.PatientID=P.PatientID AND DP.EmpID =

ANY (SELECT D.EmpID FROM employee as E, docs D

WHERE E.EmpID=D.EmpID GROUP BY E.Salary)

GROUP BY DP.PatientID HAVING COUNT(DISTINCT DP.EmpID)>1;

1. SELECT P.\*,COUNT(PMR.RecordNo) FROM patients as P,patienthasmedicalrec as PMR

WHERE P.PatientID=PMR.PatientID GROUP BY PMR.PatientID

HAVING COUNT(DISTINCT PMR.RecordNo)=COUNT(PMR.RecordNo)AND COUNT(PMR.RecordNo)>0;

1. SELECT \*,COUNT(DISTINCT medicalrecords.type) FROM patienthasmedicalrec

JOIN patients ON patients.PatientID=patienthasmedicalrec.PatientID

JOIN medicalrecords ON medicalrecords.RecordNo=patienthasmedicalrec.RecordNo

GROUP BY patienthasmedicalrec.PatientID HAVING medicalrecords.type IN

(SELECT MR.type FROM medicalrecords as MR GROUP BY MR.type) AND

COUNT(DISTINCT medicalrecords.type)=(SELECT COUNT(DISTINCT MR.type) FROM medicalrecords as MR);