Islamic University of Technology
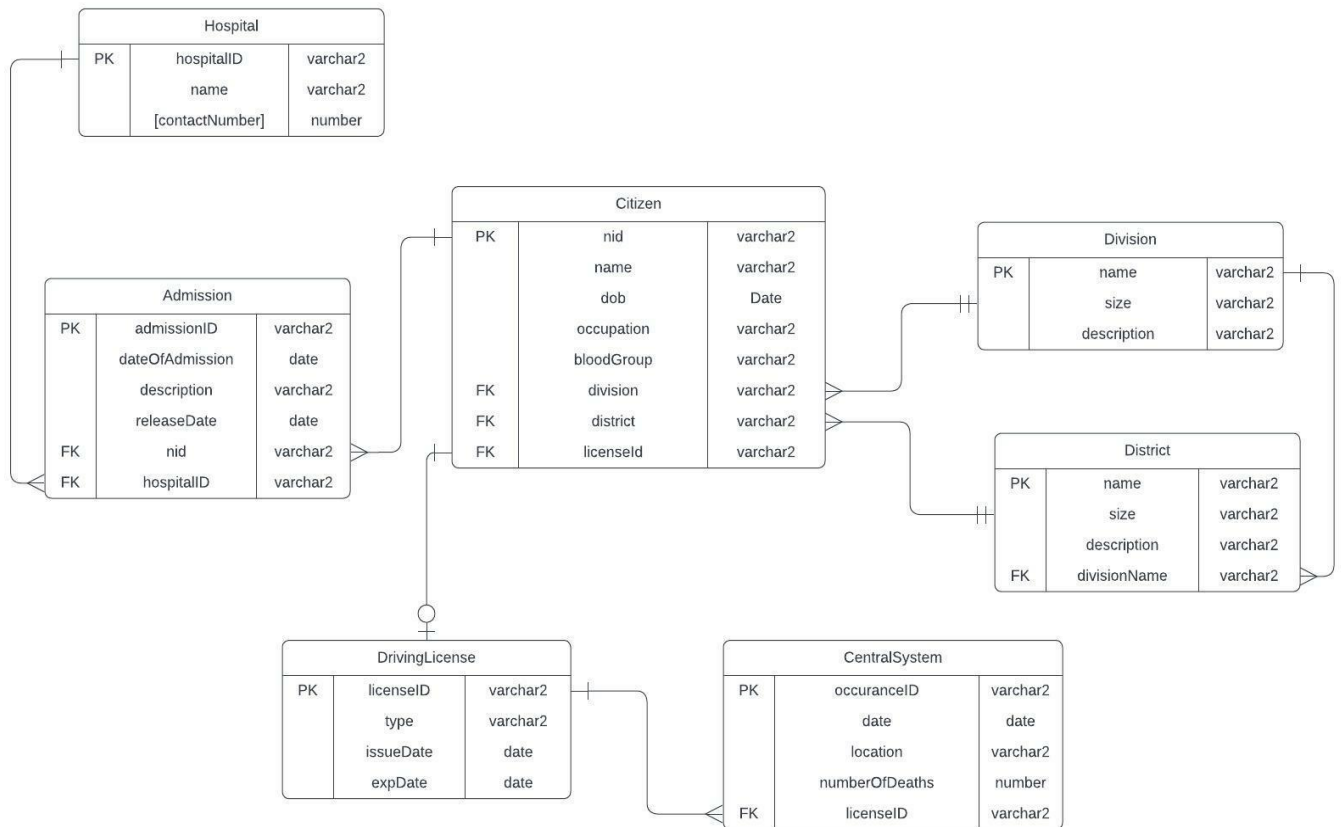
Lab 07

CSE 4308 - DBMS Lab

Submitted To :

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ER model:

Hospital

PK	hospitalID	varchar2
	name	varchar2
	[contactNumber]	number

Admission

PK	admissionID	varchar2
	dateOfAdmission	date
	description	varchar2
	releaseDate	date
FK	nid	varchar2
FK	hospitalID	varchar2

Citizen

PK	nid	varchar2
	name	varchar2
	dob	Date
	occupation	varchar2
	bloodGroup	varchar2
FK	division	varchar2
FK	district	varchar2
FK	licenseId	varchar2

Division

PK	name	varchar2
	size	varchar2
	description	varchar2

District

PK	name	varchar2
	size	varchar2
	description	varchar2
FK	divisionName	varchar2

DrivingLicense

PK	licenseID	varchar2
	type	varchar2
	issueDate	date
	expDate	date

CentralSystem

PK	occuranceID	varchar2
	date	date
	location	varchar2
	numberOfDeaths	number
FK	licenseID	varchar2

DDL statement:

Working code:

```sql
CREATE TABLE CITIZEN(
    NID VARCHAR2(30) PRIMARY KEY,
    NAME VARCHAR2(30),
    DOB DATE,
    OCCUPATION VARCHAR2(30),
    BLOODGROUP VARCHAR2(5),
    DIVISON VARCHAR2(30) REFERENCES DIVISION(NAME),
    DISTRICT VARCHAR2(30) REFERENCES DISTRICT(NAME),
    LICENSEID VARCHAR(30) REFERENCES
DRIVINGLICENSE(LICENSEID)
);

CREATE TABLE DIVISION(
    NAME VARCHAR2(30) PRIMARY KEY,
    SIZE VARCHAR2(30),
    DESCRIPTION VARCHAR2(30)
);

CREATE TABLE DISTRICT(
    NAME VARCHAR2(30) PRIMARY KEY,
    SIZE VARCHAR2(30),
    DESCRIPTION VARCHAR2(30),
    DIVISONNAME VARCHAR2(30) REFERENCES DIVISON(NAME)
);

CREATE TABLE DRIVINGLICENSE(
    LICENSEID VARCHAR2(30) PRIMARY KEY,
    TYPE VARCHAR2(30),
    ISSUEDATE DATE,
```

```sql
    EXPDATE DATE
);

CREATE TABLE CENTRALSYSTEM(
    OCCURANCEID VARCHAR2(30) PRIMARY KEY,
    OCCURANCEDATE DATE,
    LOCATION VARCHAR2(30),
    NUMBEROFDEATHS NUMBER,
    LICENSEID VARCHAR2(30) REFERENCES
DRIVINGLICENSE(LICENSEID)
)

CREATE TABLE HOSPITAL(
    HOSPITALID VARCHAR2(30) PRIMARY KEY,
    NAME VARCHAR2(30),
    CONTACT NUMBER
);

CREATE TABLE ADMISSION(
    ADMISSIONID VARCHAR2(30) PRIMARY KEY,
    DATEOFADMISSION DATE,
    DESCRIPTION VARCHAR2(30),
    RELEASEDATE DATE,
    NID VARCHAR2(30) REFERENCES CITIZEN(NID),
    HOSPITALID VARCHAR2(30) REFERENCES
HOSPITAL(HOSPITALID)
)
```

Queries:

(a)Working code:
```sql
SELECT D.NAME, COUNT(DS.NAME)
FROM DIVISION D, DISTRICT DS
WHERE D.NAME = DS.DIVISIONNAME
GROUPBY D.NAME;
```

(b)Working code:
```sql
SELECT C.DISTRICT, COUNT(C.NID)
FROM CITIZEN C, DISTRICT D
WHERE C.DISTRICT = D.NAME
HAVING COUNT(C.NID) >= 20000
GROUPBY C.DISTRICT;
```

(c)Working code:
```sql
SELECT COUNT(OCCURANCEID)
FROM CENTRALSYSTEM CS, CITIZEN C, DRIVINGLICENSE D
WHERE C.NID = "210" AND C.LICENSEID = D.LICENSEID AND
D.LICENSEID = CS.LICENSEID;
```

(d)Working code:
```sql
SELECT ROWNUM AS RANK, H.NAME
FROM(SELECT H.NAME, COUNT(A.ADMISSIONID)
     FROM HOSPITAL H, ADMISSION A
     WHERE H.HOSPITALID = A.HOSPITALID
     GROUPBY H.NAME)
WHERE ROWNUM <= 5;
```

(e)Working code:

```
SELECT C.BLOODGROUP
FROM CITIZEN C, HOSPITAL H, ADMISSION ACTOR
WHERE C.NID = A.NID AND A,NID = H.NID;
```

(f)Working code:

```
SELECT D.NAME, TOTAL/D.SIZE
FROM(SELECT D.NAME, COUNT(C.NID) AS TOTAL
     FROM DIVISION D, CITIZEN C
     WHERE C.DIVISION = D.NAME
     GROUPBY D.NAME);
```

(g)Working code:

```
SELECT ROWNUM AS RANK, D.NAME
FROM(SELECT D.NAME, TOTAL/D.SIZE
     FROM(SELECT D.NAME, COUNT(C.NID) AS TOTAL
     FROM DIVISION D, CITIZEN C
     WHERE C.DIVISION = D.NAME
     GROUPBY D.NAME))
WHERE ROWNUM <= 3;
```

(h)Working code:

```
SELECT DS.NAME, COUNT(CS.OCCURANCEID)
FROM DISTRICT DS, CITIZEN C, DRIVINGLICENSE DL,
CENTRALSYSTEM CSCONVERT
WHERE DS.NAME = C.DISTRICT AND C.LICENSEID = D.LICENSEID
AND D.LICENSEID = CS.LICENSEID
GROUPBY DS.NAME;
```

(i)Working code:

```
SELECT D.NAME
FROM(SELECT D.NAME, COUNT(CS.OCCURANCEID) AS OCCURANCE
        FROM DIVISIN D, CITIZEN C, DRIVINGLICENSE DL,
CENTRALSYSTEM CS
        WHERE D.NAME = C.DIVISION AND C.DRIVINGLICENSE =
DL.DRIVINGLICENSE AND
DL.DRIVINGLICENSE=CS.DRIVINGLICENSE
        GROUPBY D.NAME
        ORDERBY OCCURANCE)
WHERE ROWNUM <= 1;
```

(j)Working code:

```
SELECT COUNT(CS.OCCURANCEID)

FROM DRIVINGLICENSE DL, CENTRALSYSTEM CS

WHERE DL.TYPE = "PROFESSIONAL" AND DL.TYPE = "NON-
PROFESSIONAL";
```

(k)Working code:

```
SELECT C.NAME
FROM(SELECT C.NAME, (A.RELEASEDATE - A.DATEOFADMISSION)
AS TIME
    FROM CITIZEN C, ADMISSION A
    WHERE C.NID = A.NID
    ORDERBY TIME DESC)
WHERE ROWNUM <= 1;
```

(l)Working code:

```sql
SELECT D.NAME
FROM(SELECT D.NAME, COUNT(C.NID) AS TOTAL
     FROM DIVISION D, CITIZEN C
     WHERE D.NAME=C.DIVISION AND
 GETDATE()-C.DOB>= 15 AND GETDATE()-C.DOB <= 30
     ORDERBY TOTAL)
WHERE ROWNUM <= 1;
```

(m)Working code:
```sql
SELECT C.NAME
FROM CITIZEN C, DRIVINGLICENSE DL
WHERE C.LICENSEID = D.LICENSEID AND GETDATE()>D.EXPDATE;
```

(n)Working code:
```sql
SELECT C.NAME, COUNT(CS.OCCURANCEID)
FROM CITIZEN C, DRIVINGLICENSE DL, CENTRALSYSTEM CS
WHERE C.LICENSEID = D.LICENSEID AND D.LICENSEID =
CS.LICENSEID AND GETDATE()>D.EXPDATE;
```

(o)Working code:
```sql
SELECT C.NAME
FROM CITIZEN C, DRIVINGLICENSE DL
WHERE C.LICENSEID = D.LICENSEID;
MINUS
SELECT C.NAME
FROM CITIZEN C, DRIVINGLICENSE DL, CENTRALSYSTEM CS
WHERE C.LICENSEID = D.LICENSEID AND D.LICENSEID =
CS.LICENSEID;
```

(p)Working code:

```sql
SELECT D.NAME, CS.NUMBEROFDEATHS
FROM DIVISION D, CITIZEN C, DRIVINGLICENSE DL,
CENTRALSYSTEM CS
WHERE D.NAME = C.DIVISION AND C.LICENSEID = DL.LICENSEID
AND DL.LICENSEID = CS.LICENSEID;
```

(q)Working code:

```sql
SELECT C.NAME
FROM CITIZEN C, DRIVINGLICENSE DL
WHERE (DL.ISSUEDATE - GETDATE())<=22 OR (DL.ISSUEDATE -
GETDATE())>=40;
```

(r)Working code:

```sql
SELECT C.NAME
FROM CITIZEN C, DRIVINGLICENSE DL, CENTRALSYSTEM CS,
ADMISSION A
WHERE C.LICENSEID = DL.LICENSEID AND DL.LICENSEID =
CS.LICENSEID AND C.NID = A.NID AND CS.OCCURANCEDATE =
A.DATEOFADMISSION;
```

(s)Working code:

```sql
SELECT H.NAME
FROM(SELECT H.NAME, COUNT(C.NID) AS TOTAL
     FROM HOSPITAL H, ADMISSION A, CITIZEN C
     WHERE C.DIVISION = "DHAKA" AND C.NID = A.NID AND
A.HOSPITALID = H.HOSPITALID
     GROUPBY H.NAME
     ORDERBY TOTAL DESC)
WHERE ROWNUM <= 1;
```

(t)Working code:

```sql
SELECT C.NAME
FROM CITIZEN C, DRIVINGLICENSE DL, CENTRALSYSTEM CS
WHERE C.LICENSEID = DL.LICENSEID AND DL.LICENSEID =
CS.LICENSEID
MINUS
SELECT C.NAME
FROM CITIZEN C, DRIVINGLICENSE DL, CENTRALSYSTEM CS
WHERE C.LICENSEID = DL.LICENSEID AND DL.LICENSEID =
CS.LICENSEID AND C.DISTRICT = CS.LOCATION;
```