

Hospital Management System

Main aim of the project is creating a database for HospitalManagement System.

The Entities are :

1)Patients Entity:

This table will be used for storing and managing the patients information.

-Properties of Patients Entity: PCode,Pname,PDOB
Address,Gender,DCode

2)Doctor Entity :

This table will be used for storing and managing the Doctors information.

-Properties of Patients Entity:
DCode,DName,DDOB,Specialization, EmailId,LicenseNo

3)Inpatient Entity:

This table will be used for storing and managing the inpatients data.

-Properties of InPatients Entity:

PCode,WardNo, RoomNo ,PDOA ,PDOD

4) Outpatient Entity:

This table will be used for storing and managing the outpatients data.

-Properties of OutPatients Entity:

PCode, PDOAppointment

5) Room Entity:

This table will be used for storing and managing the room information and assigning of patient in every room.

-Properties of Room Entity:

WardNo ,RoomNo ,RoomType ,Status (A/U)

5) Visitors Entity:

This table will be used for storing and managing the visitors information and maintaining the details of patient whom the visitor visited.

-Properties of Visitors Entity:

Vid,VName,PCode ,DateOfVisit

6) TransactionTypes Entity:

This table contains fixed number of records for different types of transactions list available at hospital.

-Properties of TransactionTypes Entity:

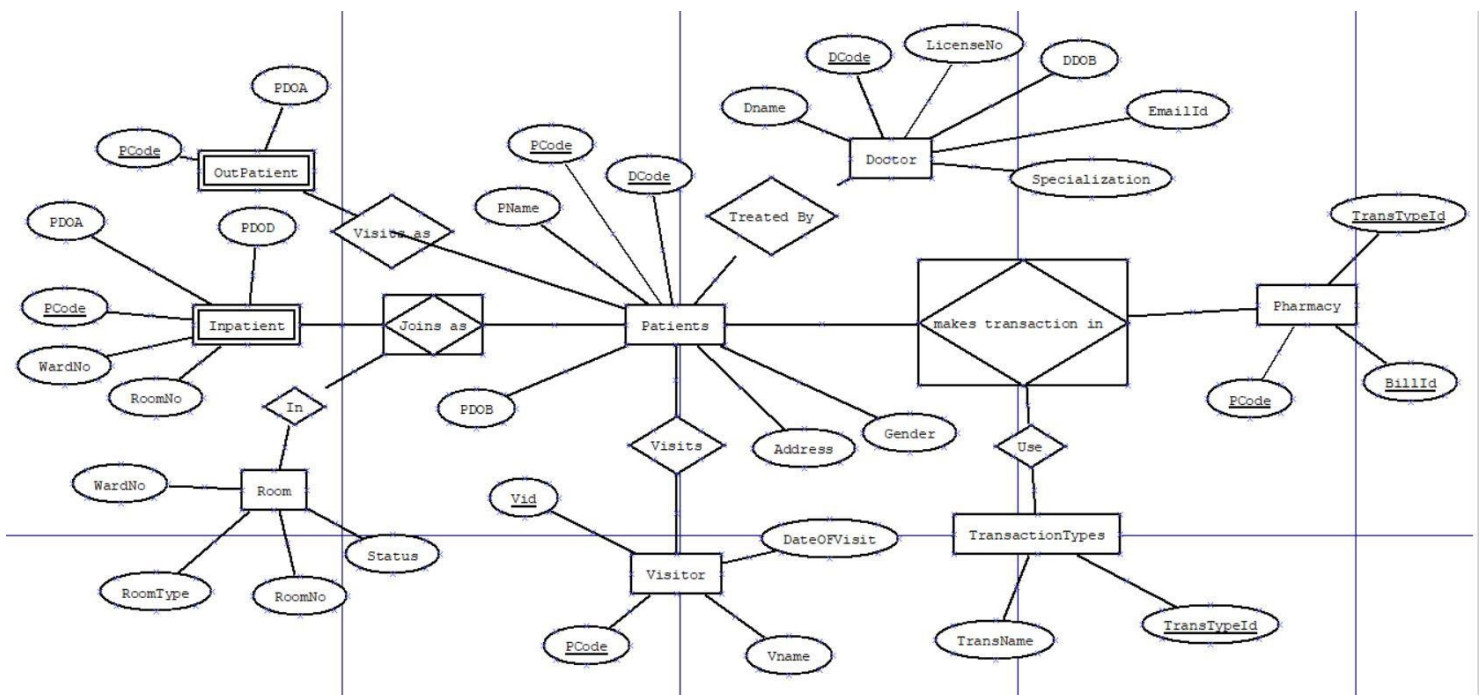
TransTypeid ,TransName

7)Pharmacy Entity:

The Pharmacy table will be used for managing the statement of accounts per patient and for the collection of bills.

-Properties of Pharmacy Entity: BillId,PCode,TransTypeId

ER Diagram:



SQL For Creating Database:

```
CREATE TABLE IF NOT EXISTS "Doctor"
```

("DCode" INTEGER,

"DName" TEXT NOT NULL,

"DDOB" TEXT NOT NULL,

"Specialization"	TEXT NOT NULL,
------------------	----------------

```

        "EmailId"    TEXT NOT NULL,
        "LicenseNo"  TEXT NOT NULL,
        PRIMARY KEY("DCode")
    );

CREATE TABLE IF NOT EXISTS "Patients"
    ("PCode"        INTEGER,
     "Pname"        TEXT NOT NULL,
     "PDOB"         REAL NOT NULL,
     "Address"      TEXT NOT NULL,
     "Gender"       TEXT,
     "DCode"        INTEGER,
     PRIMARY KEY("PCode" AUTOINCREMENT)
    );

CREATE TABLE IF NOT EXISTS "Outpatient"
    ("PCode"        INTEGER,
     "PDOAppointment" TEXT NOT NULL,
     FOREIGN KEY("PCode") REFERENCES "Patients"("PCode")
    );

CREATE TABLE IF NOT EXISTS "Visitors"
    ("Vid"  INTEGER,
     "Vname" TEXT NOT NULL,
     "PCode" INTEGER,
     "DateofVisit" TEXT NOT NULL,
     FOREIGN KEY("PCode") REFERENCES "Patients"("PCode"),
     PRIMARY KEY("Vid")
    );

CREATE TABLE IF NOT EXISTS "TransactionTypes"
    ("TransTypeid" INTEGER,
     "transName"   TEXT NOT NULL,

```

```

        PRIMARY KEY("TransTypeid")
    );

CREATE TABLE IF NOT EXISTS "Pharmacy"
    ("BillId" INTEGER,
    "PCode"      INTEGER,
    "TranstypeId" INTEGER,
    FOREIGN KEY("PCode") REFERENCES "Patients"("PCode"),
    FOREIGN KEY("TranstypeId") REFERENCES "TransactionTypes"("TransTypeid"),
    PRIMARY KEY("BillId")
);

CREATE TABLE IF NOT EXISTS "Room" (
    "WardNo"      INTEGER NOT NULL,
    "RoomNo"      INTEGER NOT NULL,
    "RoomType"    TEXT NOT NULL,
    "Status"      TEXT NOT NULL
);

CREATE TABLE IF NOT EXISTS "Inpatient" (
    "PCode"      INTEGER,
    "WardNo"      INTEGER NOT NULL,
    "RoomNo"      INTEGER NOT NULL,
    "PDOA"       TEXT NOT NULL,
    "PDOD"       TEXT NOT NULL
);

```

SQL For Inserting Sample Values:

```

INSERT INTO "Doctor"
("DCode","DName","DDOB","Specialization","EmailId","LicenseNo") VALUES
(1,'A','01-02-1980','MBBS','A@gmail.com','12345'),
(2,'B','02-01-1990','MD','B@gmail.com','54321');

```

```
INSERT INTO "Patients"  
("PCode","Pname","PDOB","Address","Gender","DCode") VALUES (1,'abc','02-02-2005','xyz,pqr','male',1),
```

```
(2,'ram','06-07-2000','mno,lmn','female',2),
```

```
(3,'som','05-10-2016','hbahv','male',1);
```

```
INSERT INTO "Outpatient" ("PCode","PDOAppointment") VALUES (3,'fever');
```

```
INSERT INTO "Visitors" ("Vid","Vname","PCode","DateofVisit") VALUES  
(1,'zyx',1,'19-07-2021'),
```

```
(2,'nmo',2,'20-07-2021');
```

```
INSERT INTO "TransactionTypes" ("TransTypeid","transName") VALUES  
(1,'upi'),
```

```
(2,'card'),
```

```
(3,'cash');
```

```
INSERT INTO "Pharmacy" ("BillId","PCode","Transtypeld") VALUES (1,1,1),
```

```
(2,2,2),
```

```
(3,3,3);
```

```
INSERT INTO "Room" ("WardNo","RoomNo","RoomType","Status") VALUES(2,1,'Single','U'),
```

```
(1,1,'Single','A'),
```

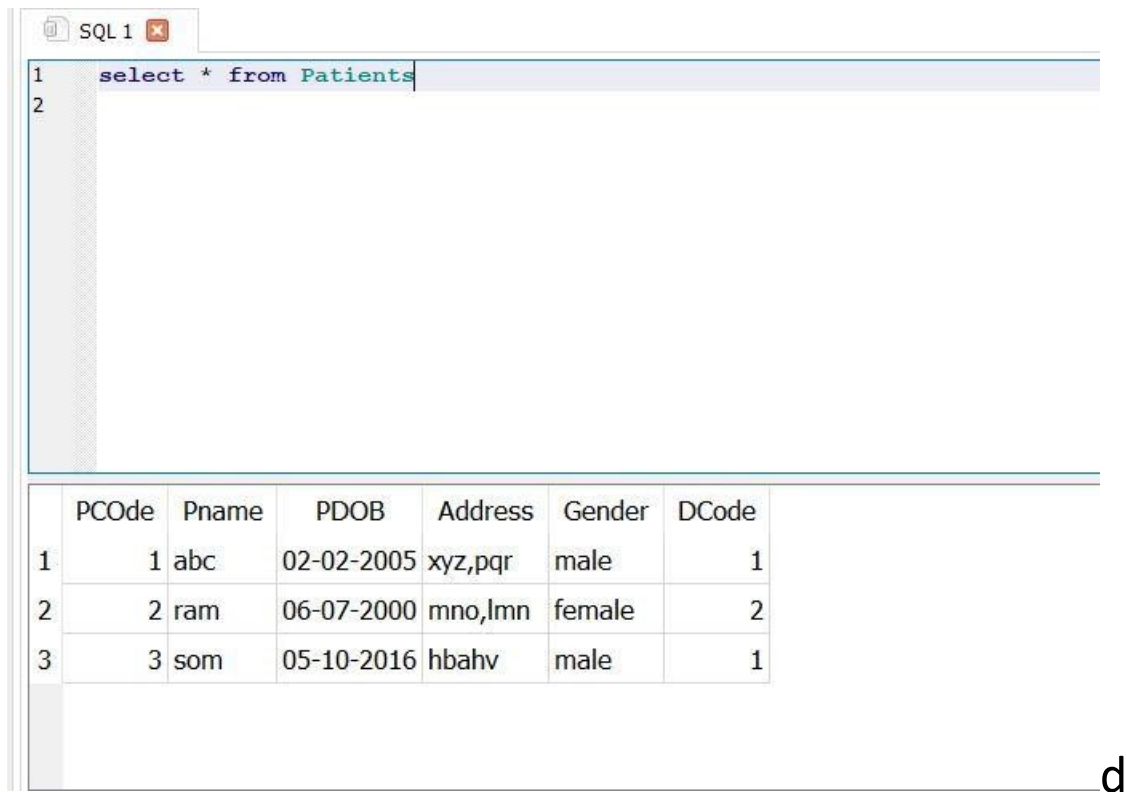
```
(1,2,'Double','A');
```

```
INSERT INTO "Inpatient" ("PCode","WardNo","RoomNo","PDOA","PDOD")  
VALUES (1,1,1,'abc','xyz'),
```

```
(2,2,1,'xyz','abc');
```

SQL statements an output for some queries:

-Selecting all from Patients Table

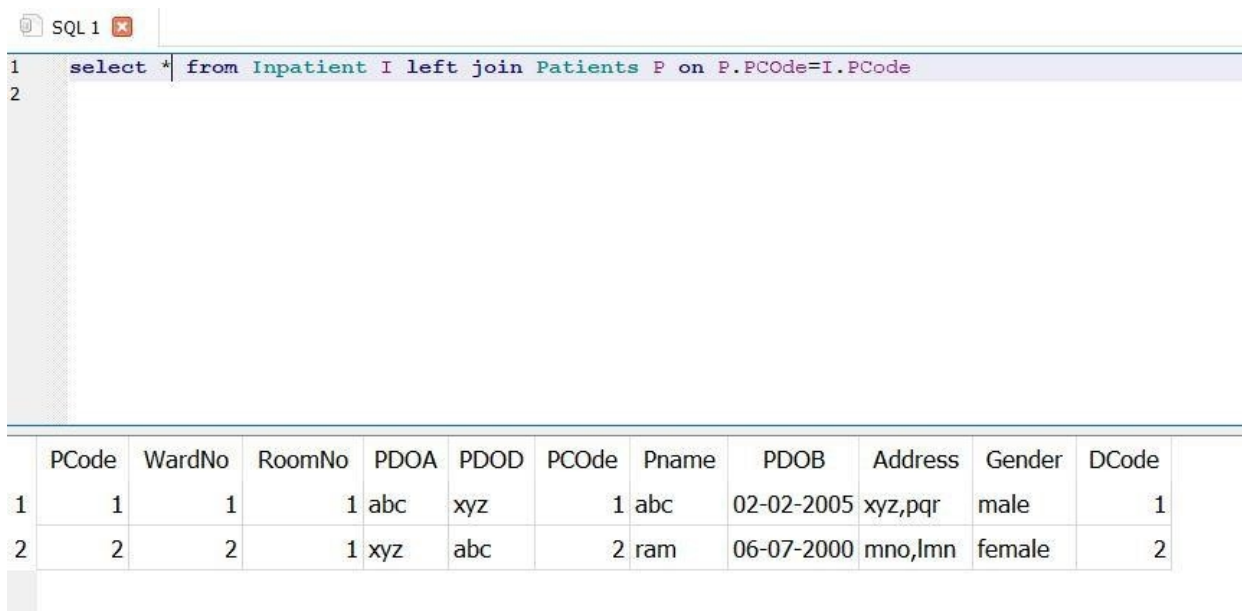


The screenshot shows an SQL IDE window titled 'SQL 1'. The query editor contains the following SQL statement:

```
1 select * from Patients
2
```

The result set displays the following data:

	PCode	Pname	PDOB	Address	Gender	DCode
1	1	abc	02-02-2005	xyz,pqr	male	1
2	2	ram	06-07-2000	mno,lmn	female	2
3	3	som	05-10-2016	hbahv	male	1



The screenshot shows an SQL IDE window titled 'SQL 1'. The query editor contains the following SQL statement:

```
1 select * from Inpatient I left join Patients P on P.PCode=I.PCode
2
```

The result set displays the following data:

	PCode	WardNo	RoomNo	PDOA	PDOD	PCode	Pname	PDOB	Address	Gender	DCode
1	1	1	1	abc	xyz	1	abc	02-02-2005	xyz,pqr	male	1
2	2	2	1	xyz	abc	2	ram	06-07-2000	mno,lmn	female	2

-Selecting inpatients data

SQL 1

```
1 select * from Outpatient o left join Patients p on O.PCode=p.PCode
2
```

	PCode	PDOAppointment	PCode	Pname	PDOB	Address	Gender	DCode
1	3	fever	3	som	05-10-2016	hbahv	male	1

-Selecting outpatients data

SQL 1									
1	select * from Inpatient o left join Room p on O.RoomNo=p.RoomNo and O.WardNo=p.WardNo								
2									
	PCode	WardNo	RoomNo	PDOA	PDOD	WardNo	RoomNo	RoomType	Status
1	1	1	1	abc	xyz	1	1	Single	A
2	2	2	1	xyz	abc	2	1	Single	U

-Selecting Inpatients Room Data

SQL 1

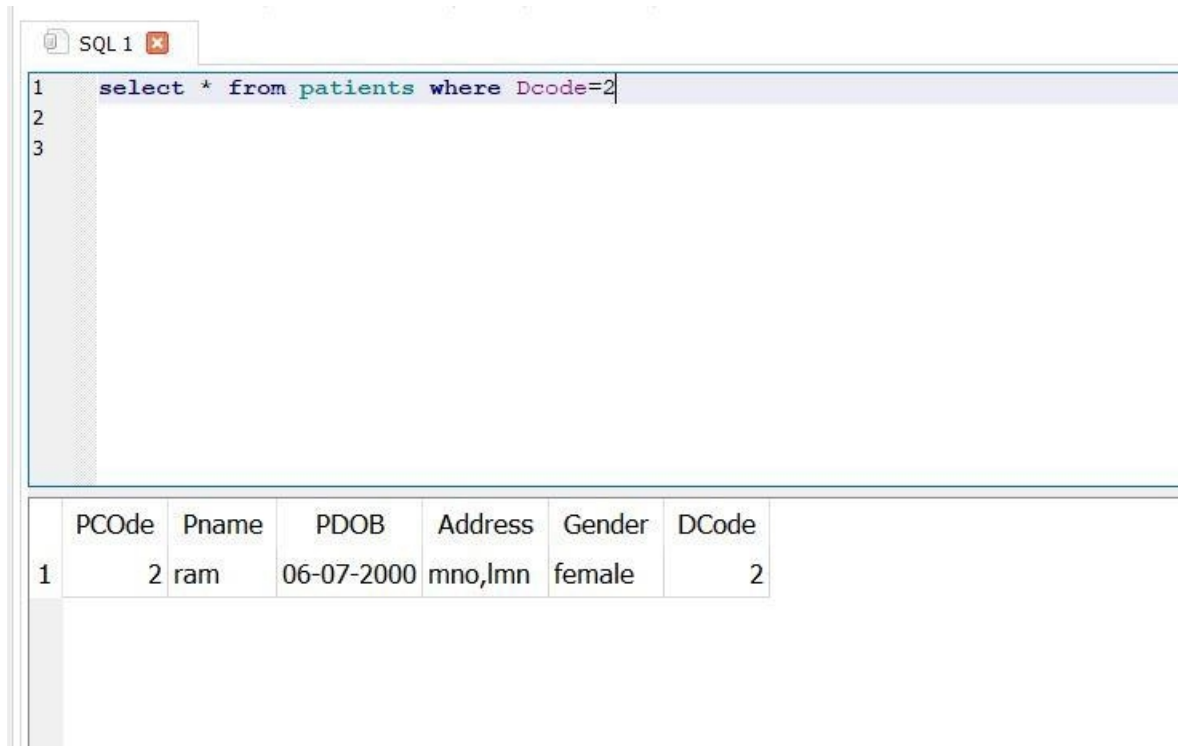
```
1 select * from Doctor D left join Patients p on D.DCode=p.DCode
2
```

	DCode	DName	DDOB	Specialization	EmailId	LicenseNo	PCode	Pname	PDOB	Address	Gender	DCode
1	1	A	01-02-1980	MBBS	A@gmail.com	12345	1	abc	02-02-2005	xyz,pqr	male	1
2	1	A	01-02-1980	MBBS	A@gmail.com	12345	3	som	05-10-2016	hbahv	male	1
3	2	B	02-01-1990	MD	B@gmail.com	54321	2	ram	06-07-2000	mno,lmn	female	2

-Selecting Doctor and Patients Data

SQL 1	<pre> 1 select * from patients where Dcode=1 2 3 </pre>					
	PCode	Pname	PDOB	Address	Gender	DCode
1	1	abc	02-02-2005	xyz,pqr	male	1
2	3	som	05-10-2016	hbahv	male	1

-Selecting patients of doctor with id 1



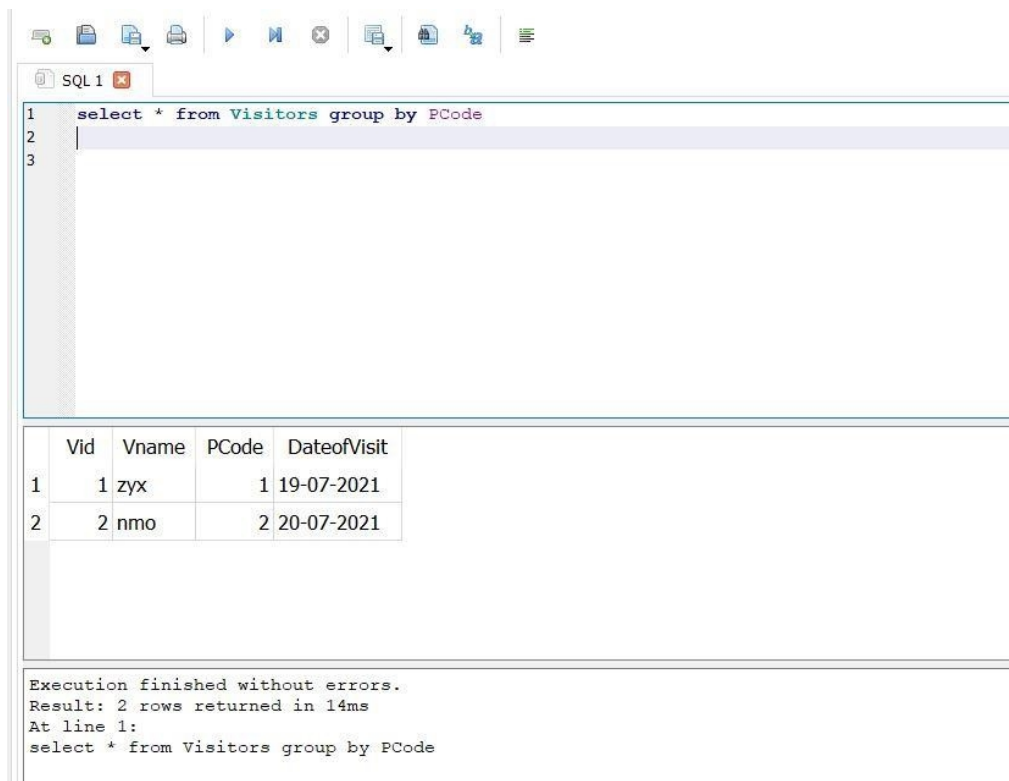
The screenshot shows a SQL Developer window with a query editor and a results grid. The query editor contains the following SQL statement:

```
1 select * from patients where Dcode=2
2
3
```

The results grid displays the following data:

	PCode	Pname	PDOB	Address	Gender	DCode
1	2	ram	06-07-2000	mno,lmn	female	2

-Selecting patients of doctor with id 1



The screenshot shows a SQL Developer window with a query editor and a results grid. The query editor contains the following SQL statement:

```
1 select * from Visitors group by PCode
2
3
```

The results grid displays the following data:

	Vid	Vname	PCode	DateofVisit
1	1	zyx	1	19-07-2021
2	2	nmo	2	20-07-2021

Execution finished without errors.
Result: 2 rows returned in 14ms
At line 1:
select * from Visitors group by PCode

-Selecting visitors grouping by Patients

SQL 1

```
1 select * from Pharmacy
2
3
```

	BillId	PCode	TranstypeId
1	1	1	1
2	2	2	2
3	3	3	3

Execution finished without errors.
 Result: 3 rows returned in 15ms
 At line 1:
 select * from Pharmacy

-Selecting pharmacy details

SQL 1

```
1 select B.BillId,P.PName,B.transName from (select * from pharmacy p left join TransactionTypes t on p.TranstypeId=t.TranstypeId)
2 B left Join Patients P on B.PCode=P.Pcode
3
4
```

	BillId	Pname	transName
1	1	abc	upi
2	2	ram	card
3	3	som	cash

-Selecting total Pharmacy Data Using nested Joins.