Soluciones DDL1

A.

```sql
CREATE TABLE Pieces (
   Code INTEGER PRIMARY KEY NOT NULL,
   Name TEXT NOT NULL
 );

 CREATE TABLE Providers (
  Code TEXT PRIMARY KEY NOT NULL,
  Name TEXT NOT NULL
 );

 CREATE TABLE Provides (
   Piece INTEGER
     CONSTRAINT fk_Pieces_Code REFERENCES Pieces(Code),
   Provider TEXT
     CONSTRAINT fk_Providers_Code REFERENCES Providers(Code),
   Price INTEGER NOT NULL,
   PRIMARY KEY(Piece, Provider)
 );
```

- Inserciones en la tabla

```sql
INSERT INTO Providers(Code, Name) VALUES('HAL','Clarke Enterprises');
INSERT INTO Providers(Code, Name) VALUES('RBT','Susan Calvin Corp.');
INSERT INTO Providers(Code, Name) VALUES('TNBC','Skellington Supplies');

INSERT INTO Pieces(Code, Name) VALUES(1,'Sprocket');
INSERT INTO Pieces(Code, Name) VALUES(2,'Screw');
INSERT INTO Pieces(Code, Name) VALUES(3,'Nut');
INSERT INTO Pieces(Code, Name) VALUES(4,'Bolt');

INSERT INTO Provides(Piece, Provider, Price) VALUES(1,'HAL',10);
INSERT INTO Provides(Piece, Provider, Price) VALUES(1,'RBT',15);
INSERT INTO Provides(Piece, Provider, Price) VALUES(2,'HAL',20);
INSERT INTO Provides(Piece, Provider, Price) VALUES(2,'RBT',15);
INSERT INTO Provides(Piece, Provider, Price) VALUES(2,'TNBC',14);
INSERT INTO Provides(Piece, Provider, Price) VALUES(3,'RBT',50);
INSERT INTO Provides(Piece, Provider, Price) VALUES(3,'TNBC',45);
INSERT INTO Provides(Piece, Provider, Price) VALUES(4,'HAL',5);
INSERT INTO Provides(Piece, Provider, Price) VALUES(4,'RBT',7);
```

B.

```sql
create table Scientists (
  SSN int,
  Name Char(30) not null,
  Primary Key (SSN)
);

Create table Projects (
  Code Char(4),
  Name Char(50) not null,
  Hours int,
  Primary Key (Code)
);

create table AssignedTo (
  Scientist int not null,
  Project char(4) not null,
  Primary Key (Scientist, Project),
  Foreign Key (Scientist) references Scientists (SSN),
  Foreign Key (Project) references Projects (Code)
);
```

- Inserciones

```sql
INSERT INTO Scientists(SSN,Name)
  VALUES(123234877,'Michael Rogers'),
    (152934485,'Anand Manikutty'),
    (222364883, 'Carol Smith'),
    (326587417,'Joe Stevens'),
    (332154719,'Mary-Anne Foster'),
    (332569843,'George ODonnell'),
    (546523478,'John Doe'),
    (631231482,'David Smith'),
    (654873219,'Zacary Efron'),
    (745685214,'Eric Goldsmith'),
    (845657245,'Elizabeth Doe'),
    (845657246,'Kumar Swamy');

INSERT INTO Projects ( Code,Name,Hours)
VALUES ('AeH1','Winds: Studying Bernoullis Principle', 156),
      ('AeH2','Aerodynamics and Bridge Design',189),
      ('AeH3','Aerodynamics and Gas Mileage', 256),
      ('AeH4','Aerodynamics and Ice Hockey', 789),
      ('AeH5','Aerodynamics of a Football', 98),
      ('AeH6','Aerodynamics of Air Hockey',89),
      ('Ast1','A Matter of Time',112),
      ('Ast2','A Puzzling Parallax', 299),
      ('Ast3','Build Your Own Telescope', 6546),
      ('Bte1','Juicy: Extracting Apple Juice with Pectinase', 321),
      ('Bte2','A Magnetic Primer Designer', 9684),
      ('Bte3','Bacterial Transformation Efficiency', 321),
      ('Che1','A Silver-Cleaning Battery', 545),
      ('Che2','A Soluble Separation Solution', 778);

INSERT INTO AssignedTo ( Scientist, Project)
  VALUES (123234877,'AeH1'),
    (152934485,'AeH3'),
    (222364883,'Ast3'),
    (326587417,'Ast3'),
    (332154719,'Bte1'),
    (546523478,'Che1'),
    (631231482,'Ast3'),
    (654873219,'Che1'),
    (745685214,'AeH3'),
    (845657245,'Ast1'),
    (845657246,'Ast2'),
    (332569843,'AeH4');
```

C.

SQL

```sql
CREATE TABLE Employee (
  EmployeeID INTEGER PRIMARY KEY NOT NULL,
  Name TEXT NOT NULL,
  Position TEXT NOT NULL,
  Salary REAL NOT NULL,
  Remarks TEXT
);

CREATE TABLE Planet (
  PlanetID INTEGER PRIMARY KEY NOT NULL,
  Name TEXT NOT NULL,
  Coordinates REAL NOT NULL
);

CREATE TABLE Shipment (
  ShipmentID INTEGER PRIMARY KEY NOT NULL,
  Date TEXT,
  Manager INTEGER NOT NULL
    CONSTRAINT fk_Employee_EmployeeID REFERENCES Employee(EmployeeID),
  Planet INTEGER NOT NULL
    CONSTRAINT fk_Planet_PlanetID REFERENCES Planet(PlanetID)
);

CREATE TABLE Has_Clearance (
  Employee INTEGER NOT NULL
    CONSTRAINT fk_Employee_EmployeeID REFERENCES Employee(EmployeeID),
  Planet INTEGER NOT NULL
    CONSTRAINT fk_Planet_PlanetID REFERENCES Planet(PlanetID),
  Level INTEGER NOT NULL,
  PRIMARY KEY(Employee, Planet)
);

CREATE TABLE Client (
  AccountNumber INTEGER PRIMARY KEY NOT NULL,
  Name TEXT NOT NULL
);

CREATE TABLE Package (
  Shipment INTEGER NOT NULL
    CONSTRAINT fk_Shipment_ShipmentID REFERENCES Shipment(ShipmentID),
  PackageNumber INTEGER NOT NULL,
  Contents TEXT NOT NULL,
  Weight REAL NOT NULL,
  Sender INTEGER NOT NULL
    CONSTRAINT fk_Client_AccountNumber REFERENCES Client(AccountNumber),
  Recipient INTEGER NOT NULL
    CONSTRAINT fk_Client_AccountNumber REFERENCES Client(AccountNumber),
  PRIMARY KEY(Shipment, PackageNumber)
);
```

- Inserciones

```sql
INSERT INTO Client VALUES(1, 'Zapp Brannigan');
INSERT INTO Client VALUES(2, "Al Gore's Head");
INSERT INTO Client VALUES(3, 'Barbados Slim');
INSERT INTO Client VALUES(4, 'Ogden Wernstrom');
INSERT INTO Client VALUES(5, 'Leo Wong');
INSERT INTO Client VALUES(6, 'Lrrr');
INSERT INTO Client VALUES(7, 'John Zoidberg');
INSERT INTO Client VALUES(8, 'John Zoidfarb');
INSERT INTO Client VALUES(9, 'Morbo');
INSERT INTO Client VALUES(10, 'Judge John Whitey');
INSERT INTO Client VALUES(11, 'Calculon');
INSERT INTO Employee VALUES(1, 'Phillip J. Fry', 'Delivery boy', 7500.0, 'Not to be confused with the Philip J. Fry from Hovering Squid World 97a');
INSERT INTO Employee VALUES(2, 'Turanga Leela', 'Captain', 10000.0, NULL);
INSERT INTO Employee VALUES(3, 'Bender Bending Rodriguez', 'Robot', 7500.0, NULL);
INSERT INTO Employee VALUES(4, 'Hubert J. Farnsworth', 'CEO', 20000.0, NULL);
INSERT INTO Employee VALUES(5, 'John A. Zoidberg', 'Physician', 25.0, NULL);
INSERT INTO Employee VALUES(6, 'Amy Wong', 'Intern', 5000.0, NULL);
INSERT INTO Employee VALUES(7, 'Hermes Conrad', 'Bureaucrat', 10000.0, NULL);
INSERT INTO Employee VALUES(8, 'Scruffy Scruffington', 'Janitor', 5000.0, NULL);
INSERT INTO Planet VALUES(1, 'Omicron Persei 8', 89475345.3545);
INSERT INTO Planet VALUES(2, 'Decapod X', 65498463216.3466);
INSERT INTO Planet VALUES(3, 'Mars', 32435021.65468);
INSERT INTO Planet VALUES(4, 'Omega III', 98432121.5464);
INSERT INTO Planet VALUES(5, 'Tarantulon VI', 849842198.354654);
INSERT INTO Planet VALUES(6, 'Cannibalon', 654321987.21654);
INSERT INTO Planet VALUES(7, 'DogDoo VII', 65498721354.688);
INSERT INTO Planet VALUES(8, 'Nintenduu 64', 6543219894.1654);
INSERT INTO Planet VALUES(9, 'Amazonia', 65432135979.6547);
INSERT INTO Has_Clearance VALUES(1, 1, 2);
INSERT INTO Has_Clearance VALUES(1, 2, 3);
INSERT INTO Has_Clearance VALUES(2, 3, 2);
INSERT INTO Has_Clearance VALUES(2, 4, 4);
INSERT INTO Has_Clearance VALUES(3, 5, 2);
INSERT INTO Has_Clearance VALUES(3, 6, 4);
INSERT INTO Has_Clearance VALUES(4, 7, 1);
INSERT INTO Shipment VALUES(1, '3004/05/11', 1, 1);
INSERT INTO Shipment VALUES(2, '3004/05/11', 1, 2);
INSERT INTO Shipment VALUES(3, NULL, 2, 3);
INSERT INTO Shipment VALUES(4, NULL, 2, 4);
INSERT INTO Shipment VALUES(5, NULL, 7, 5);
INSERT INTO Package VALUES(1, 1, 'Undeclared', 1.5, 1, 2);
INSERT INTO Package VALUES(2, 1, 'Undeclared', 10.0, 2, 3);
INSERT INTO Package VALUES(2, 2, 'A bucket of krill', 2.0, 8, 7);
INSERT INTO Package VALUES(3, 1, 'Undeclared', 15.0, 3, 4);
INSERT INTO Package VALUES(3, 2, 'Undeclared', 3.0, 5, 1);
INSERT INTO Package VALUES(3, 3, 'Undeclared', 7.0, 2, 3);
INSERT INTO Package VALUES(4, 1, 'Undeclared', 5.0, 4, 5);
INSERT INTO Package VALUES(4, 2, 'Undeclared', 27.0, 1, 2);
INSERT INTO Package VALUES(5, 1, 'Undeclared', 100.0, 5, 1);
```

D.

```sql
CREATE TABLE Alumno (
  NumMatricula smallint primary key,
  Nombre varchar(50) not null,
  FechaNacimiento Date not null
  Teléfono int(10)
);

CREATE TABLE Asignatura (
  CodAsignatura int primary key,
  Nombre varchar(50) not null,
  IdProfesor int,
  Foreign Key (IdProfesor) references Profeser(IdProfesor)
);

CREATE TABLE Profesor (
  IdProfesor int primary key,
  NIF_P varchar(10) unique key,
  Nombre varchar (50),
  Especialidad varchar(50),
  Teléfono int(10)
);

CREATE TABLE Recibe (
  NumMatricula int,
  CodAsignatura int,
  CursoEscolar int,
  Primary key(NumMatricula, CodAsignatura, CursoEscolar)
  Foreign Key(NumMatricula) references Asignatura(CodAsignatura),
  Foreign Key(CodAsignatura) references Asignatura(CodAsignatura)
);
```

E.

```sql
CREATE TABLE Empleado (
  ID int primary key,
  DNI varchar(10),
  Nombre varchar(20),
  FechaNacimiento Date,
  Telefono varchar(15),
  Unique Key(DNI)
);

CREATE TABLE Localidad (
  CodLocalidad varchar(10) primary key,
  Nombre varchar(25),
  CodProvincia char(4),
  Foreign Key(CodProvincia) references Provincia(CodProvincia)
);

CREATE TABLE Provincia(
  CodProvincia char(4) Primary Key,
  Nombre varchar(25),
  CodRegion char(4),
  Foreign Key(CodRegion) references Region(CodRegion)
);

CREATE TABLE Region(
  CodRegion char(4) Primary Key,
  Nombre varchar(25)
)
```

F.

```sql
CREATE TABLE Physician (
  EmployeeID INTEGER PRIMARY KEY NOT NULL,
  Name TEXT NOT NULL,
  Position TEXT NOT NULL,
  SSN INTEGER NOT NULL
);

CREATE TABLE Department (
  DepartmentID INTEGER PRIMARY KEY NOT NULL,
  Name TEXT NOT NULL,
  Head INTEGER NOT NULL
    CONSTRAINT fk_Physician_EmployeeID REFERENCES Physician(EmployeeID)
);

CREATE TABLE Affiliated_With (
  Physician INTEGER NOT NULL
    CONSTRAINT fk_Physician_EmployeeID REFERENCES Physician(EmployeeID),
  Department INTEGER NOT NULL
    CONSTRAINT fk_Department_DepartmentID REFERENCES Department(DepartmentID),
  PrimaryAffiliation BOOLEAN NOT NULL,
  PRIMARY KEY(Physician, Department)
);

CREATE TABLE Procedure (
  Code INTEGER PRIMARY KEY NOT NULL,
  Name TEXT NOT NULL,
  Cost REAL NOT NULL
);

CREATE TABLE Trained_In (
  Physician INTEGER NOT NULL
    CONSTRAINT fk_Physician_EmployeeID REFERENCES Physician(EmployeeID),
  Treatment INTEGER NOT NULL
    CONSTRAINT fk_Procedure_Code REFERENCES Procedure(Code),
  CertificationDate DATETIME NOT NULL,
  CertificationExpires DATETIME NOT NULL,
  PRIMARY KEY(Physician, Treatment)
);

CREATE TABLE Patient (
  SSN INTEGER PRIMARY KEY NOT NULL,
  Name TEXT NOT NULL,
  Address TEXT NOT NULL,
  Phone TEXT NOT NULL,
  InsuranceID INTEGER NOT NULL,
  PCP INTEGER NOT NULL
    CONSTRAINT fk_Physician_EmployeeID REFERENCES Physician(EmployeeID)
);

CREATE TABLE Nurse (
  EmployeeID INTEGER PRIMARY KEY NOT NULL,
  Name TEXT NOT NULL,
  Position TEXT NOT NULL,
  Registered BOOLEAN NOT NULL,
  SSN INTEGER NOT NULL
);

CREATE TABLE Appointment (
  AppointmentID INTEGER PRIMARY KEY NOT NULL,
  Patient INTEGER NOT NULL
    CONSTRAINT fk_Patient_SSN REFERENCES Patient(SSN),
  PrepNurse INTEGER
    CONSTRAINT fk_Nurse_EmployeeID REFERENCES Nurse(EmployeeID),
  Physician INTEGER NOT NULL
    CONSTRAINT fk_Physician_EmployeeID REFERENCES Physician(EmployeeID),
  Start DATETIME NOT NULL,
  End DATETIME NOT NULL,
  ExaminationRoom TEXT NOT NULL
);

CREATE TABLE Medication (
  Code INTEGER PRIMARY KEY NOT NULL,
  Name TEXT NOT NULL,
  Brand TEXT NOT NULL,
  Description TEXT NOT NULL
);

CREATE TABLE Prescribes (
  Physician INTEGER NOT NULL
    CONSTRAINT fk_Physician_EmployeeID REFERENCES Physician(EmployeeID),
```

```sql
  Patient INTEGER NOT NULL
    CONSTRAINT fk_Patient_SSN REFERENCES Patient(SSN),
  Medication INTEGER NOT NULL
    CONSTRAINT fk_Medication_Code REFERENCES Medication(Code),
  Date DATETIME NOT NULL,
  Appointment INTEGER
    CONSTRAINT fk_Appointment_AppointmentID REFERENCES Appointment(AppointmentID),
  Dose TEXT NOT NULL,
  PRIMARY KEY(Physician, Patient, Medication, Date)
);

CREATE TABLE Block (
  Floor INTEGER NOT NULL,
  Code INTEGER NOT NULL,
  PRIMARY KEY(Floor, Code)
);

CREATE TABLE Room (
  Number INTEGER PRIMARY KEY NOT NULL,
  Type TEXT NOT NULL,
  BlockFloor INTEGER NOT NULL,
  BlockCode INTEGER NOT NULL,
  Unavailable BOOLEAN NOT NULL,
  FOREIGN KEY(BlockFloor, BlockCode) REFERENCES Block
);

CREATE TABLE On_Call (
  Nurse INTEGER NOT NULL
    CONSTRAINT fk_Nurse_EmployeeID REFERENCES Nurse(EmployeeID),
  BlockFloor INTEGER NOT NULL,
  BlockCode INTEGER NOT NULL,
  Start DATETIME NOT NULL,
  End DATETIME NOT NULL,
  PRIMARY KEY(Nurse, BlockFloor, BlockCode, Start, End),
  FOREIGN KEY(BlockFloor, BlockCode) REFERENCES Block
);

CREATE TABLE Stay (
  StayID INTEGER PRIMARY KEY NOT NULL,
  Patient INTEGER NOT NULL
    CONSTRAINT fk_Patient_SSN REFERENCES Patient(SSN),
  Room INTEGER NOT NULL
    CONSTRAINT fk_Room_Number REFERENCES Room(Number),
  Start DATETIME NOT NULL,
  End DATETIME NOT NULL
);

CREATE TABLE Undergoes (
  Patient INTEGER NOT NULL
    CONSTRAINT fk_Patient_SSN REFERENCES Patient(SSN),
  Procedure INTEGER NOT NULL
    CONSTRAINT fk_Procedure_Code REFERENCES Procedure(Code),
  Stay INTEGER NOT NULL
    CONSTRAINT fk_Stay_StayID REFERENCES Stay(StayID),
  Date DATETIME NOT NULL,
  Physician INTEGER NOT NULL
    CONSTRAINT fk_Physician_EmployeeID REFERENCES Physician(EmployeeID),
  AssistingNurse INTEGER
    CONSTRAINT fk_Nurse_EmployeeID REFERENCES Nurse(EmployeeID),
  PRIMARY KEY(Patient, Procedure, Stay, Date)
);
```

- Inserciones

```sql
INSERT INTO Physician VALUES(1,'John Dorian','Staff Internist',111111111);
INSERT INTO Physician VALUES(2,'Elliot Reid','Attending Physician',222222222);
INSERT INTO Physician VALUES(3,'Christopher Turk','Surgical Attending Physician',333333333);
INSERT INTO Physician VALUES(4,'Percival Cox','Senior Attending Physician',444444444);
INSERT INTO Physician VALUES(5,'Bob Kelso','Head Chief of Medicine',555555555);
INSERT INTO Physician VALUES(6,'Todd Quinlan','Surgical Attending Physician',666666666);
INSERT INTO Physician VALUES(7,'John Wen','Surgical Attending Physician',777777777);
INSERT INTO Physician VALUES(8,'Keith Dudemeister','MD Resident',888888888);
INSERT INTO Physician VALUES(9,'Molly Clock','Attending Psychiatrist',999999999);

INSERT INTO Department VALUES(1,'General Medicine',4);
INSERT INTO Department VALUES(2,'Surgery',7);
INSERT INTO Department VALUES(3,'Psychiatry',9);

INSERT INTO Affiliated_With VALUES(1,1,1);
INSERT INTO Affiliated_With VALUES(2,1,1);
INSERT INTO Affiliated_With VALUES(3,1,0);
INSERT INTO Affiliated_With VALUES(3,2,1);
INSERT INTO Affiliated_With VALUES(4,1,1);
INSERT INTO Affiliated_With VALUES(5,1,1);
INSERT INTO Affiliated_With VALUES(6,2,1);
INSERT INTO Affiliated_With VALUES(7,1,0);
INSERT INTO Affiliated_With VALUES(7,2,1);
INSERT INTO Affiliated_With VALUES(8,1,1);
INSERT INTO Affiliated_With VALUES(9,3,1);

INSERT INTO Procedure VALUES(1,'Reverse Rhinopodoplasty',1500.0);
INSERT INTO Procedure VALUES(2,'Obtuse Pyloric Recombobulation',3750.0);
INSERT INTO Procedure VALUES(3,'Folded Demiophtalmectomy',4500.0);
INSERT INTO Procedure VALUES(4,'Complete Walletectomy',10000.0);
INSERT INTO Procedure VALUES(5,'Obfuscated Dermogastrotomy',4899.0);
INSERT INTO Procedure VALUES(6,'Reversible Pancreomyoplasty',5600.0);
INSERT INTO Procedure VALUES(7,'Follicular Demiectomy',25.0);

INSERT INTO Patient VALUES(100000001,'John Smith','42 Foobar Lane','555-0256',68476213,1);
INSERT INTO Patient VALUES(100000002,'Grace Ritchie','37 Snafu Drive','555-0512',36546321,2);
INSERT INTO Patient VALUES(100000003,'Random J. Patient','101 Omgbbq Street','555-1204',65465421,2);
INSERT INTO Patient VALUES(100000004,'Dennis Doe','1100 Foobaz Avenue','555-2048',68421879,3);

INSERT INTO Nurse VALUES(101,'Carla Espinosa','Head Nurse',1,111111110);
INSERT INTO Nurse VALUES(102,'Laverne Roberts','Nurse',1,222222220);
INSERT INTO Nurse VALUES(103,'Paul Flowers','Nurse',0,333333330);

INSERT INTO Appointment VALUES(13216584,100000001,101,1,'2008-04-24 10:00','2008-04-24 11:00','A');
INSERT INTO Appointment VALUES(26548913,100000002,101,2,'2008-04-24 10:00','2008-04-24 11:00','B');
INSERT INTO Appointment VALUES(36549879,100000001,102,1,'2008-04-25 10:00','2008-04-25 11:00','A');
INSERT INTO Appointment VALUES(46846589,100000004,103,4,'2008-04-25 10:00','2008-04-25 11:00','B');
INSERT INTO Appointment VALUES(59871321,100000004,NULL,4,'2008-04-26 10:00','2008-04-26 11:00','C');
INSERT INTO Appointment VALUES(69879231,100000003,103,2,'2008-04-26 11:00','2008-04-26 12:00','C');
INSERT INTO Appointment VALUES(76983231,100000001,NULL,3,'2008-04-26 12:00','2008-04-26 13:00','C');
INSERT INTO Appointment VALUES(86213939,100000004,102,9,'2008-04-27 10:00','2008-04-21 11:00','A');
INSERT INTO Appointment VALUES(93216548,100000002,101,2,'2008-04-27 10:00','2008-04-27 11:00','B');

INSERT INTO Medication VALUES(1,'Procrastin-X','X','N/A');
INSERT INTO Medication VALUES(2,'Thesisin','Foo Labs','N/A');
INSERT INTO Medication VALUES(3,'Awakin','Bar Laboratories','N/A');
INSERT INTO Medication VALUES(4,'Crescavitin','Baz Industries','N/A');
INSERT INTO Medication VALUES(5,'Melioraurin','Snafu Pharmaceuticals','N/A');

INSERT INTO Prescribes VALUES(1,100000001,1,'2008-04-24 10:47',13216584,'5');
INSERT INTO Prescribes VALUES(9,100000004,2,'2008-04-27 10:53',86213939,'10');
INSERT INTO Prescribes VALUES(9,100000004,2,'2008-04-30 16:53',NULL,'5');

INSERT INTO Block VALUES(1,1);
INSERT INTO Block VALUES(1,2);
INSERT INTO Block VALUES(1,3);
INSERT INTO Block VALUES(2,1);
INSERT INTO Block VALUES(2,2);
INSERT INTO Block VALUES(2,3);
INSERT INTO Block VALUES(3,1);
INSERT INTO Block VALUES(3,2);
INSERT INTO Block VALUES(3,3);
INSERT INTO Block VALUES(4,1);
INSERT INTO Block VALUES(4,2);
INSERT INTO Block VALUES(4,3);

INSERT INTO Room VALUES(101,'Single',1,1,0);
INSERT INTO Room VALUES(102,'Single',1,1,0);
INSERT INTO Room VALUES(103,'Single',1,1,0);
INSERT INTO Room VALUES(111,'Single',1,2,0);
```

```sql
INSERT INTO Room VALUES(112,'Single',1,2,1);
INSERT INTO Room VALUES(113,'Single',1,2,0);
INSERT INTO Room VALUES(121,'Single',1,3,0);
INSERT INTO Room VALUES(122,'Single',1,3,0);
INSERT INTO Room VALUES(123,'Single',1,3,0);
INSERT INTO Room VALUES(201,'Single',2,1,1);
INSERT INTO Room VALUES(202,'Single',2,1,0);
INSERT INTO Room VALUES(203,'Single',2,1,0);
INSERT INTO Room VALUES(211,'Single',2,2,0);
INSERT INTO Room VALUES(212,'Single',2,2,0);
INSERT INTO Room VALUES(213,'Single',2,2,1);
INSERT INTO Room VALUES(221,'Single',2,3,0);
INSERT INTO Room VALUES(222,'Single',2,3,0);
INSERT INTO Room VALUES(223,'Single',2,3,0);
INSERT INTO Room VALUES(301,'Single',3,1,0);
INSERT INTO Room VALUES(302,'Single',3,1,1);
INSERT INTO Room VALUES(303,'Single',3,1,0);
INSERT INTO Room VALUES(311,'Single',3,2,0);
INSERT INTO Room VALUES(312,'Single',3,2,0);
INSERT INTO Room VALUES(313,'Single',3,2,0);
INSERT INTO Room VALUES(321,'Single',3,3,1);
INSERT INTO Room VALUES(322,'Single',3,3,0);
INSERT INTO Room VALUES(323,'Single',3,3,0);
INSERT INTO Room VALUES(401,'Single',4,1,0);
INSERT INTO Room VALUES(402,'Single',4,1,1);
INSERT INTO Room VALUES(403,'Single',4,1,0);
INSERT INTO Room VALUES(411,'Single',4,2,0);
INSERT INTO Room VALUES(412,'Single',4,2,0);
INSERT INTO Room VALUES(413,'Single',4,2,0);
INSERT INTO Room VALUES(421,'Single',4,3,1);
INSERT INTO Room VALUES(422,'Single',4,3,0);
INSERT INTO Room VALUES(423,'Single',4,3,0);

INSERT INTO On_Call VALUES(101,1,1,'2008-11-04 11:00','2008-11-04 19:00');
INSERT INTO On_Call VALUES(101,1,2,'2008-11-04 11:00','2008-11-04 19:00');
INSERT INTO On_Call VALUES(102,1,3,'2008-11-04 11:00','2008-11-04 19:00');
INSERT INTO On_Call VALUES(103,1,1,'2008-11-04 19:00','2008-11-05 03:00');
INSERT INTO On_Call VALUES(103,1,2,'2008-11-04 19:00','2008-11-05 03:00');
INSERT INTO On_Call VALUES(103,1,3,'2008-11-04 19:00','2008-11-05 03:00');

INSERT INTO Stay VALUES(3215,100000001,111,'2008-05-01','2008-05-04');
INSERT INTO Stay VALUES(3216,100000003,123,'2008-05-03','2008-05-14');
INSERT INTO Stay VALUES(3217,100000004,112,'2008-05-02','2008-05-03');

INSERT INTO Undergoes VALUES(100000001,6,3215,'2008-05-02',3,101);
INSERT INTO Undergoes VALUES(100000001,2,3215,'2008-05-03',7,101);
INSERT INTO Undergoes VALUES(100000004,1,3217,'2008-05-07',3,102);
INSERT INTO Undergoes VALUES(100000004,5,3217,'2008-05-09',6,NULL);
INSERT INTO Undergoes VALUES(100000001,7,3217,'2008-05-10',7,101);
INSERT INTO Undergoes VALUES(100000004,4,3217,'2008-05-13',3,103);

INSERT INTO Trained_In VALUES(3,1,'2008-01-01','2008-12-31');
INSERT INTO Trained_In VALUES(3,2,'2008-01-01','2008-12-31');
INSERT INTO Trained_In VALUES(3,5,'2008-01-01','2008-12-31');
INSERT INTO Trained_In VALUES(3,6,'2008-01-01','2008-12-31');
INSERT INTO Trained_In VALUES(3,7,'2008-01-01','2008-12-31');
INSERT INTO Trained_In VALUES(6,2,'2008-01-01','2008-12-31');
INSERT INTO Trained_In VALUES(6,5,'2007-01-01','2007-12-31');
INSERT INTO Trained_In VALUES(6,6,'2008-01-01','2008-12-31');
INSERT INTO Trained_In VALUES(7,1,'2008-01-01','2008-12-31');
INSERT INTO Trained_In VALUES(7,2,'2008-01-01','2008-12-31');
INSERT INTO Trained_In VALUES(7,3,'2008-01-01','2008-12-31');
INSERT INTO Trained_In VALUES(7,4,'2008-01-01','2008-12-31');
INSERT INTO Trained_In VALUES(7,5,'2008-01-01','2008-12-31');
INSERT INTO Trained_In VALUES(7,6,'2008-01-01','2008-12-31');
INSERT INTO Trained_In VALUES(7,7,'2008-01-01','2008-12-31');
```

- Ejercicio 2 Solución:Sentencias SQL de creación de tablas:

```sql
CREATE TABLE pub (
    cod_pub         VARCHAR(5)   NOT NULL,
    nombre          VARCHAR(60)  NOT NULL,
    licencia_fiscal VARCHAR(60)  NOT NULL,
    domicilio       VARCHAR(60)          ,
    fecha_apertura  DATE         NOT NULL,
    horario         VARCHAR(60)  NOT NULL,
    cod_localidad   INTEGER      NOT NULL
);

CREATE TABLE titular (
    dni_titular     VARCHAR(8)   NOT NULL,
    nombre          VARCHAR(60)  NOT NULL,
    domicilio       VARCHAR(60)          ,
    cod_pub         VARCHAR(5)   NOT NULL
);

CREATE TABLE empleado (
    dni_empleado    VARCHAR(8)   NOT NULL,
    nombre          VARCHAR(60)  NOT NULL,
    domicilio       VARCHAR(60)
);

CREATE TABLE existencias (
    cod_articulo    VARCHAR(10)  NOT NULL,
    nombre          VARCHAR(60)  NOT NULL,
    cantidad        INTEGER      NOT NULL,
    precio          DECIMAL      NOT NULL,
    cod_pub         VARCHAR(5)   NOT NULL
);

CREATE TABLE localidad (
    cod_localidad   INTEGER      NOT NULL,
    nombre          VARCHAR(60)  NOT NULL
);

CREATE TABLE pub_empleado (
    cod_pub         VARCHAR(5)   NOT NULL,
    dni_empleado    VARCHAR(8)   NOT NULL,
    funcion         VARCHAR(9)   NOT NULL
);
```

Sentencias SQL de creación restricciones:

```sql
ALTER TABLE pub ADD CONSTRAINT pk_pub PRIMARY KEY (cod_pub) ;
ALTER TABLE localidad ADD CONSTRAINT pk_localidad PRIMARY KEY (cod_localidad) ;
ALTER TABLE titular ADD CONSTRAINT pk_titular PRIMARY KEY (dni_titular) ;
ALTER TABLE empleado ADD CONSTRAINT pk_empleado PRIMARY KEY (dni_empleado) ;
ALTER TABLE existencias ADD CONSTRAINT pk_existencias PRIMARY KEY (cod_articulo) ;
ALTER TABLE pub_empleado ADD CONSTRAINT pk_pub_empleado PRIMARY KEY (cod_pub, dni_empleado, funcion) ;
ALTER TABLE pub ADD CONSTRAINT fk_pub_localidad FOREIGN KEY (cod_localidad) REFERENCES localidad (cod_localidad) ;
ALTER TABLE titular ADD CONSTRAINT fk_titular_pu FOREIGN KEY (cod_pub) REFERENCES pub (cod_pub) ;
ALTER TABLE existencias ADD CONSTRAINT fk_existencias_pub FOREIGN KEY (cod_pub) REFERENCES pub (cod_pub) ;
ALTER TABLE pub_empleado ADD CONSTRAINT fk_pubemple_pub FOREIGN KEY (cod_pub) REFERENCES pub(cod_pub) ;
ALTER TABLE pub_empleado ADD CONSTRAINT fk_pubemple_empleado FOREIGN KEY (dni_empleado) REFERENCES empleado (dni_empleado) ;
ALTER TABLE pub ADD CONSTRAINT ck_horario CHECK (horario IN ('HOR1', 'HOR2', 'HOR3')) ;
ALTER TABLE existencias ADD CONSTRAINT ck_precio CHECK (precio <> 0) ;
ALTER TABLE pub_empleado ADD CONSTRAINT ck_funcion CHECK (funcion IN ('CAMARERO', 'SEGURIDAD', 'LIMPIEZA')) ;
```