

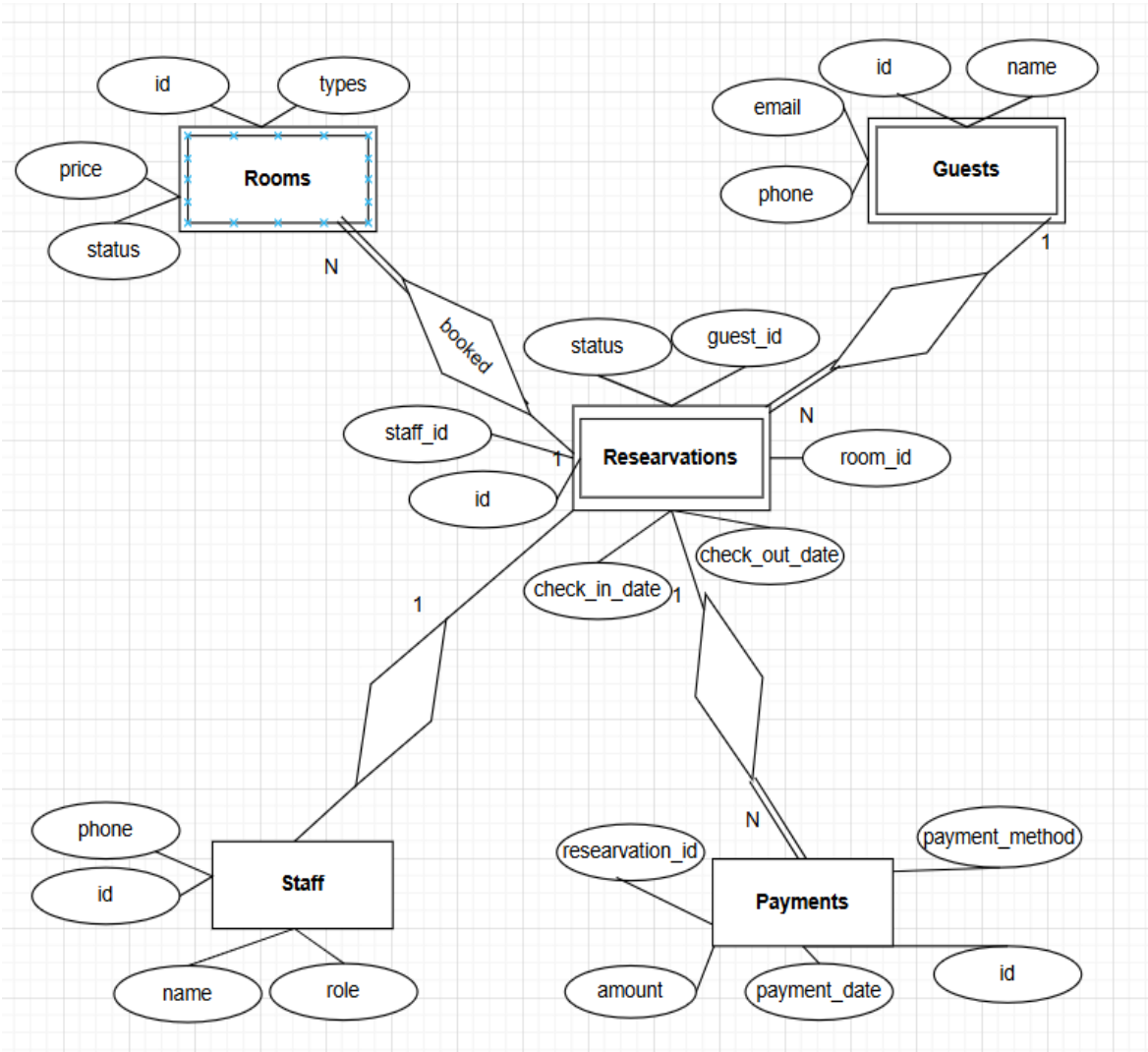
## Introduction:

Designing a relational database for a hotel booking system involves creating tables to store data about rooms, guests, reservations, payments, and staff, and defining relationships between these tables.

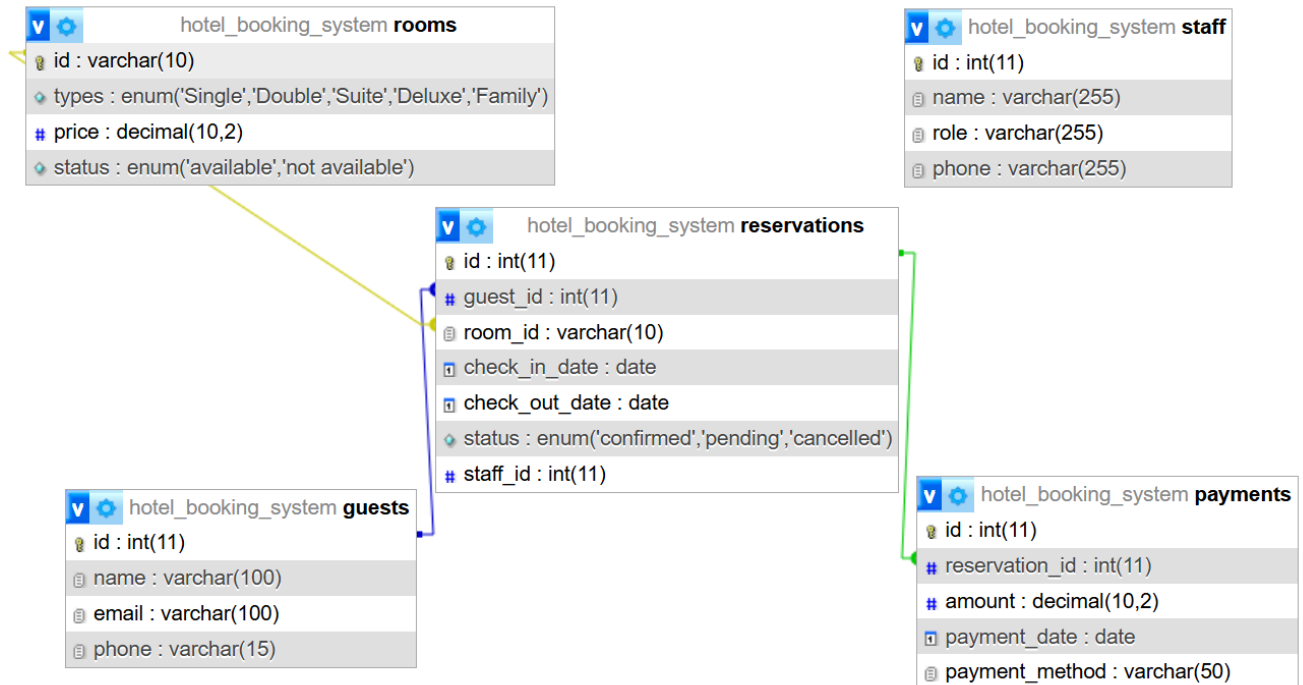
## Entities used for these database:

- Guests
- Rooms
- Reservations
- Staff
- Payments

## Entity relationship (ER) diagram :



Here's the Design view:



Codes used in the process:

```
CREATE TABLE guests(  
  id int(11) primary key auto_increment,  
  name varchar(100) NOT NULL,  
  email varchar(100) NOT NULL,  
  phone varchar(15) NOT NULL  
);
```

```
CREATE TABLE payments (  
  id int primary key auto_increment,  
  reservation_id int(11) NOT NULL,  
  amount decimal(10,2) NOT NULL,  
  payment_date date DEFAULT NULL,  
  payment_method varchar(50) NOT NULL  
);
```

```
CREATE TABLE reservations(  
  id int primary key auto_increment,  
  guest_id int(11) DEFAULT NULL,  
  room_id varchar(10) NOT NULL,  
  check_in_date date DEFAULT NULL,  
  check_out_date date DEFAULT NULL,  
  status enum('confirmed','pending','cancelled') DEFAULT NULL,  
  FOREIGN key (guest_id) REFERENCES guests(id),  
  FOREIGN key (room_id) REFERENCES rooms(id)  
);
```

```
CREATE TABLE rooms(  
  id int primary key auto_increment,  
  types enum('Single','Double','Suite','Deluxe','Family') DEFAULT NULL,  
  price decimal(10,2) NOT NULL,  
  status enum('available','not available') DEFAULT NULL  
);
```

```
CREATE TABLE staff(  
  id int(11) primary key auto_increment,  
  name varchar(255) NOT NULL,  
  role varchar(255) NOT NULL,  
  phone varchar(255) NOT NULL  
);
```