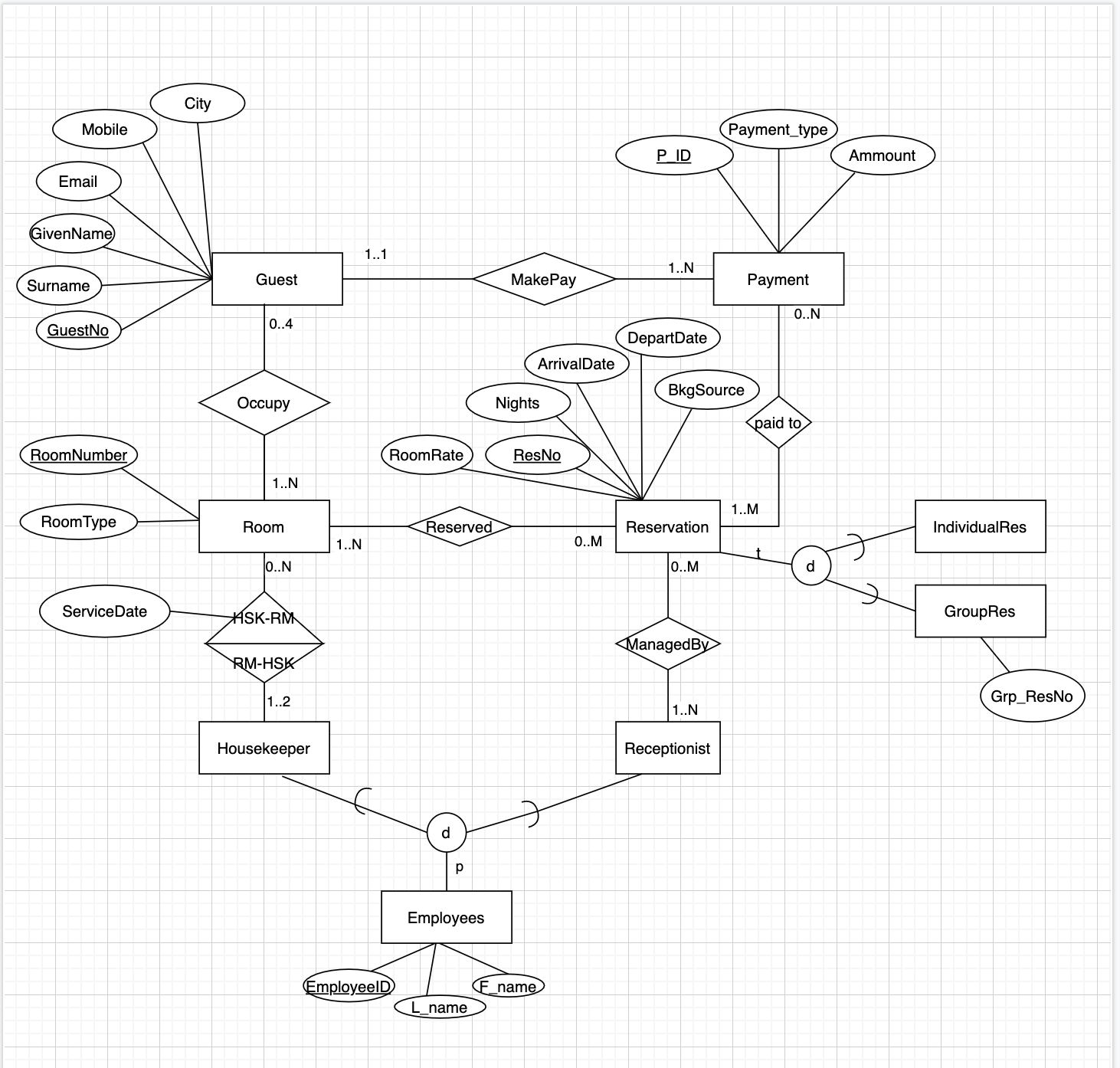
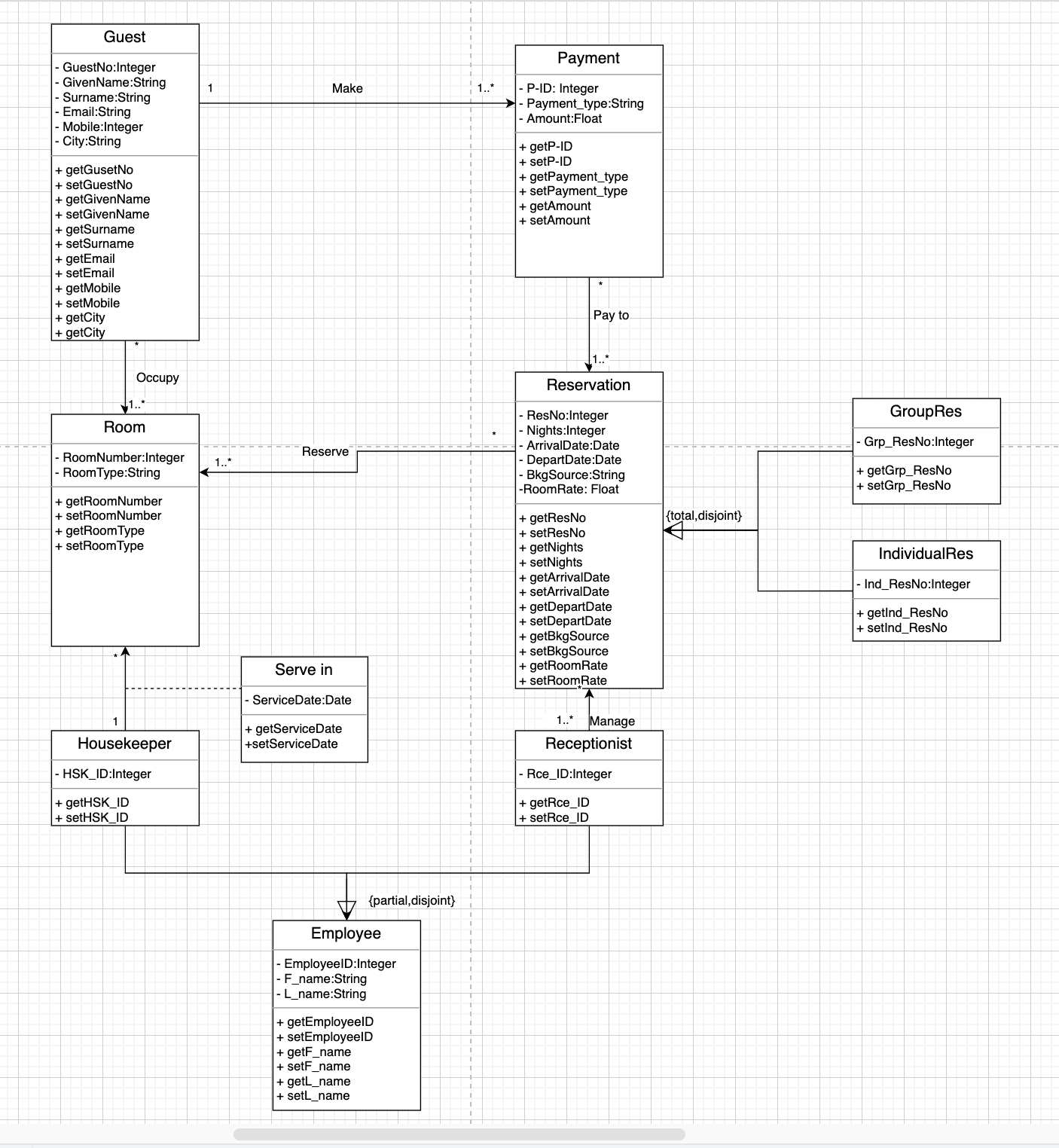
**Appendix A**

1. EER Diagram



1. UML Diagram



1. Mapping EER to Relational Model

Note: Primary Key are underlined, Foreign key (FK) are italics.

**Guest**(GuestNo, Surname, GivenName, Email, Mobile, City)

**Room**(RoomNumber, RoomType)

**Occupy**(GuestNo, RoomNumber)

GuestNo: is the FK refers to GuestNo in the relation Guest, Null not allowed, update/delete cascade.

RoomNumber: is the FK refers to RoomNumber in the relation Room, Null not allowed, update/delete cascade.

**Payment**(P\_ID, Payment\_type, Amount, P\_GuestNo)

P\_GuestNo: is the FK refers to GuestNo in relation Guest, Null not allowed, update/delete cascade.

**Paid to**(P\_ID, ResNo)

P\_ID: is the FK refers to P\_ID in relation Payment, Null not allowed, update/delete cascade.

ResNo: is the FK refers to ResNo in the relation Reservation, Null not allowed, update/delete cascade.

**Reservation**(ResNo, ArrivalDate, DepartDate, Nights, BkgSource, RoomRate)

**IndividualRes**(Ind\_ResNo)

Ind\_ResNo: is the FK refers to the ResNo in the relation Reservation, Null not allowed, update/delete cascade.

**GroupRes**(Grp\_ResNo, Separate\_ResNo,)

Separate\_ResNo: is the FK refers to the ResNo in the relation Reservation, Null not allowed, update/delete cascade.

**Reserved**(RoomNumber, ResNo)

RoomNumber: is the FK refers to RoomNumber in the relation Room, Null not allowed, update/delete cascade.

ResNo: is the FK refers to ResNo in the relation Reservation, Null not allowed, on update/delete cascade.

**Employees**(EmployeeID, L\_name, F\_name)

**Housekeeper**(HSK\_ID)

HSK\_ID: is the FK refers to EmployeeID in relation Employees, Null not allowed, on update/delete cascade.

**Receptionist**(Rec\_ID,...)

Rec\_ID: is the FK refers to EmployeeID in the relation employees, Null not allowed, on update/delete cascade.

**RoomService**(HSK\_ID, RoomNumber, ServiceDate)

HSK\_ID: is the FK refers to HSK\_ID in relation Housekeeper, Null not allowed, update/delete cascade.

RoomNumber: is the FK refers to the RoomNumber in the relation Room, Null not allowed, update/delete cascade.

**ManageReservation**(Rec\_ID, ResNo)

Rec\_ID: is the FK refers to Rec\_ID in the relation Receptionist, Null not allowed, update/delete cascade.

ResNo: is the FK refers to ResNo in the relation Reservation, Null not allowed, update/delete cascade.