Task 1:

ER Model

Treatment for Patient
PatientUnique Patient Number	integer(10)
TreatmentConsultantConsultantID	integer(10)
TreatmentTreatment Number	integer(10)
PatientConsultantConsultantID	integer(10)
PatientWardWard Name	varchar(255)
PatientPrivate RoomRoom Number	integer(10)

Private Room
Room Number	integer(10)
Room Type	varchar(255)

Private Room Allocation
Unique Patient Number	integer(10)
Room Number	integer(10)

Treatment
Treatment Number	integer(10)
Description	varchar(255)
Treatment Date	varbinary(2000)
ConsultantConsultantID	integer(10)

Patients
Patient Number	integer(10)
Name	varchar(255)
Address	varchar(255)
Age	integer(10)
Sex	varchar(255)
ConsultantConsultantID	integer(10)
WardWard Name	varchar(255)
Private RoomRoom Number	integer(10)

Ward
Ward Name	varchar(255)
Sister In Charge	varchar(255)
Ward Type	varchar(255)

Bed
Bed Number	integer(10)
WardWard Name	varchar(255)

Patient Treatment
Unique Patient Number	integer(10)
TreatmentConsultantConsultantID	integer(10)
TreatmentTreatment Number	integer(10)

Consultant
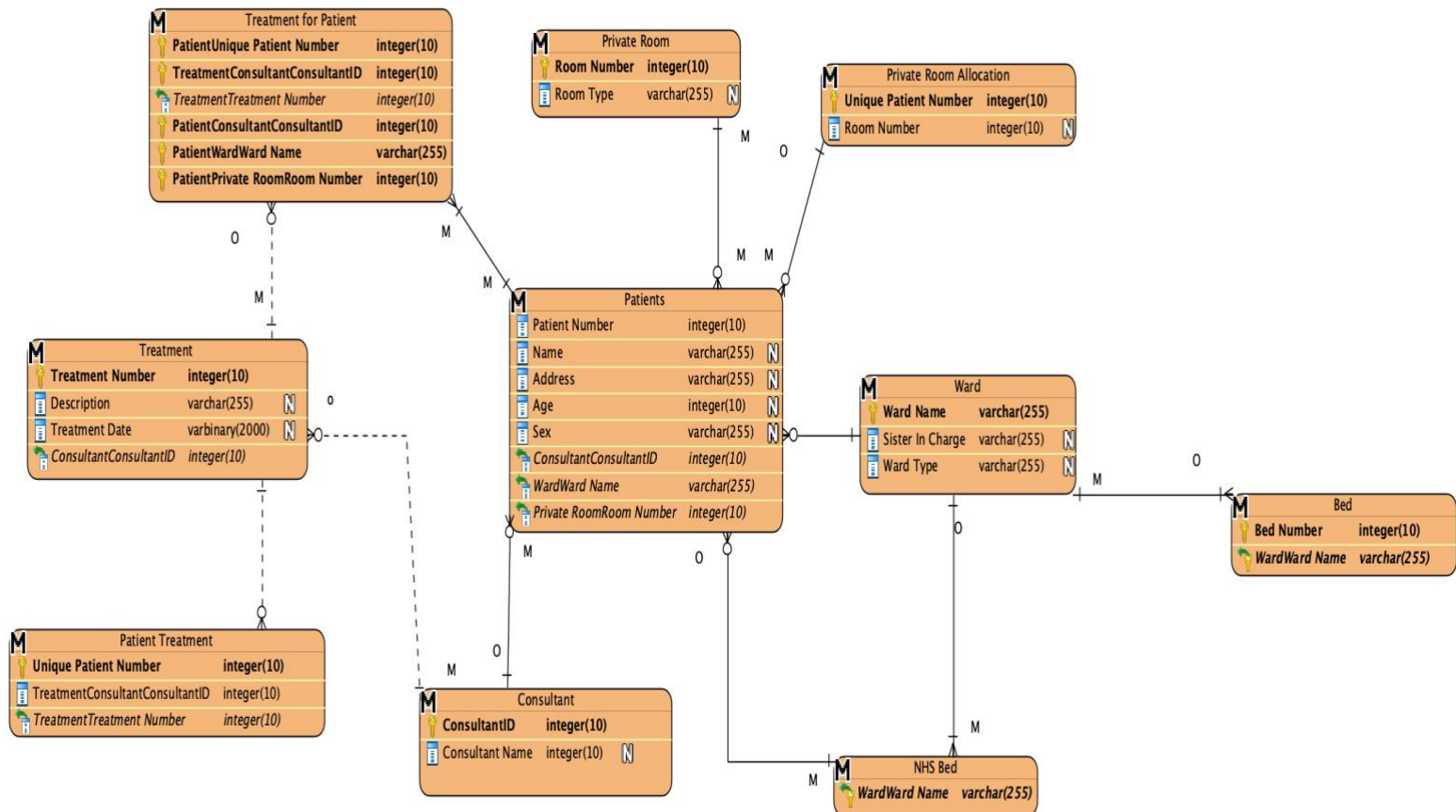|		
ConsultantID	integer(10)
Consultant Name	integer(10)

NHS Bed
WardWard Name	varchar(255)

Relational schema:

Patient {patient_id (Primary key), patient_name, address, age, sex, consultant_id (Foreign key)}

Ward {ward_name (Primary key), sister_in_charge, ward_type}

Treatment {Treatment_Number (Primary key), Description, TreatmentDate, consultant_id (Foreign key)}

Consultant {consultant_id (Primary key), consultant_name}

Patient Treatment {patient_id (Foreign key), consultant_id (Foreign key), Treatment_Number (Foreign key)}

Bed {Bed_Number (Primary key), ward_name (Foreign key)}

Private Room { private_room_number (Primary key), private_room_type}

Private Room Allocation {patient_id (FK), private_room_number (FK)}