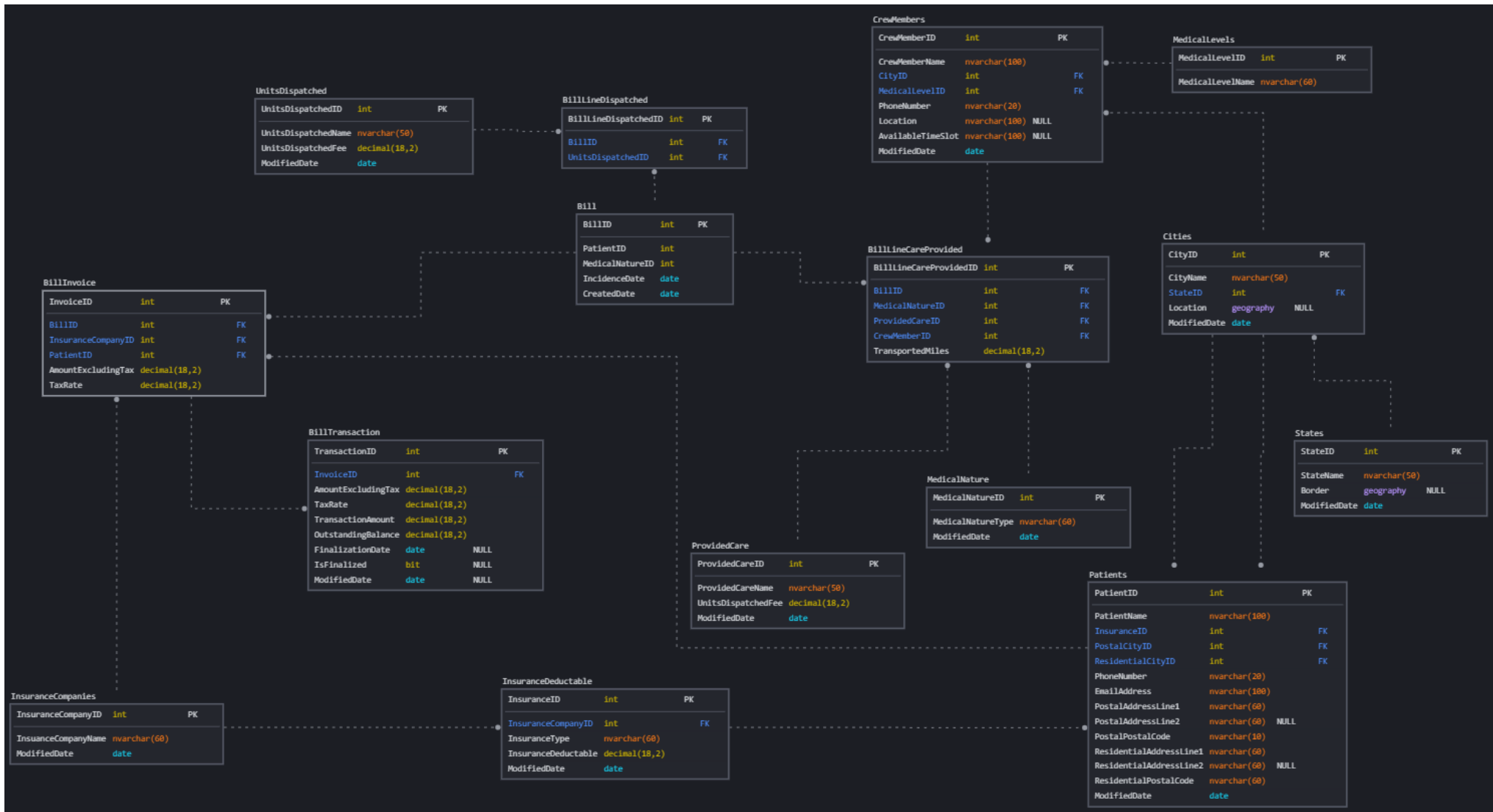


## Question 31. Database Design for EMS Business

Bill Lan, Lillian Lei, Chloe Wang



PK of			Comments
BillID	int, not null, identity(1,1)	PK	
PatientID	int, not null	FK	Patients
MedicalNatureID	int, not null	FK	MedicalNature
IncidenceDate	date, not null		
CreatedDate	date, not null		

<b>BillLineDispatched</b>			
BillLineDispatchedID	int, not null, identity(1,1)	PK	
BillID	int, not null	FK	<b>Bill</b>
UnitsDispatchedID	int, not null	FK	<b>UnitsDispatched</b>

<b>BillLineCareProvided</b>			
BillLineCareProvidedID	int, not null, identity(1,1)	PK	
BillID	int, not null		<b>Bill</b>
CrewMemberID	int, not null	FK	<b>CrewMembers</b>
ProvidedCareID	int, not null	FK	<b>ProvidedCare</b>
TransportedMiles	decimal(18,2), not null		
MedicalNatureID		FK	<b>MedicalNature</b>

<b>BillTransaction</b>			
TransactionID	int, not null, identity(1,1)	PK	
InvoiceID	int, not null	FK	<b>Invoice</b>
AmountExcludingTax	decimal(18,2), not null		
TaxRate	decimal(18,2), not null		
TransactionAmount	decimal(18,2), not null		
OutstandingBalance	decimal(18,2), not null		Calculated
FinalizationDate	date, null		
IsFinalized	bit, not null		IF outstanding balance = 0, then finalized
ModifiedDate	date, not null		

<b>BillInvoice</b>			
InvoiceID	int, not null, identity(1,1)	PK	
BillID	int, not null	FK	<b>Bill</b>
PatientID	int, null	FK	<b>Patients</b> IF NOT NULL, bill to patient
InsuranceCompanyID	int, null	FK	<b>InsuranceCompanies</b> IF NOT NULL, bill to insurance company
AmountExcludingTax	decimal(18,2), not null		
TaxRate	decimal(18,2), not null		

			PK of
CrewMembers			
CrewMemberID	int, not null, identity(1,1)	PK	
CrewMemberName	nvarchar(100), not null		
PhoneNumber	nvarchar(20), not null		
MedicalLevelID	int, not null	FK	MedicalLevels
Location	nvarchar(100), null		
CityID	int, not null	FK	Cities
AvailableTimeSlot	nvarchar(100), null		
ModifiedDate	date, not null		

<b>Patients</b>			
PatientID	int, not null, identity(1,1)	PK	
PatientName	nvarchar(100), not null		
PhoneNumber	nvarchar(20), not null		
EmailAddress	nvarchar(100), not null		
PostalAddressLine1	nvarchar(60), not null		
PostalAddressLine2	nvarchar(60), null		
PostalPostalCode	nvarchar(10), not null		
PostalCityID	int, not null	FK	<b>Cities</b>
ResidentialAddressLine1	nvarchar(60), not null		
ResidentialAddressLine2	nvarchar(60), null		
ResidentialPostalCode	nvarchar(10), not null		
ResidentialCityID	int, not null	FK	<b>Cities</b>
InsuranceID	int, not null	FK	<b>Insurance</b>
ModifiedDate	date, not null		

<b>MedicalLevels</b>			
MedicalLevelID	int, not null, identity(1,1)	PK	
MedicalLevelName	nvarchar(60), not null		

<b>UnitsDispatched</b>			
UnitsDispatchedID	int, not null, identity(1,1)	PK	
UnitsDispatchedName	nvarchar(50)		
UnitsDispatchedFee	decimal(18,2), not null		
ModifiedDate	date, not null		

<b>ProvidedCare</b>			
ProvidedCareID	int, not null, identity(1,1)	PK	
ProvidedCareName	nvarchar(50)		
UnitsDispatchedFee	decimal(18,2), not null		
ModifiedDate	date, not null		

PK of		
Cities		
CityID	int, not null	PK
CityName	nvarchar(50), not null	
StateID	int, not null	FK States
Location	geography, null	
ModifiedDate	date, not null	

<b>States</b>			
StateID	int, not null	PK	
StateName	nvarchar(50), not null		
Border	geography, null		
ModifiedDate	date, not null		

<b>ProvidedCare</b>			
ProvidedCareID	int, not null, identity(1,1)	PK	
ProvidedCareName	nvarchar(50)		
UnitsDispatchedFee	decimal(18,2), not null		
ModifiedDate	date, not null		

<b>InsuranceCompanies</b>			
InsuranceCompanyID	int, not null, identity(1,1)	PK	
InsuranceCompanyName	nvarchar(60), not null		
ModifiedDate	date, not null		

<b>InsuranceDeductable</b>			
InsuranceID	int, not null	PK	
InsuranceCompanyID	int, not null	FK	<b>InsuranceCompanies</b>
InsuranceType	nvarchar(60), not null		
InsuranceDeductable	decimal(18,2), not null		
ModifiedDate	date, not null		

<b>MedicalNature</b>			
MedicalNatureID	int, not null, identity(1,1)	PK	
MedicalNatureType	nvarchar(60), not null		
ModifiedDate	date, not null		