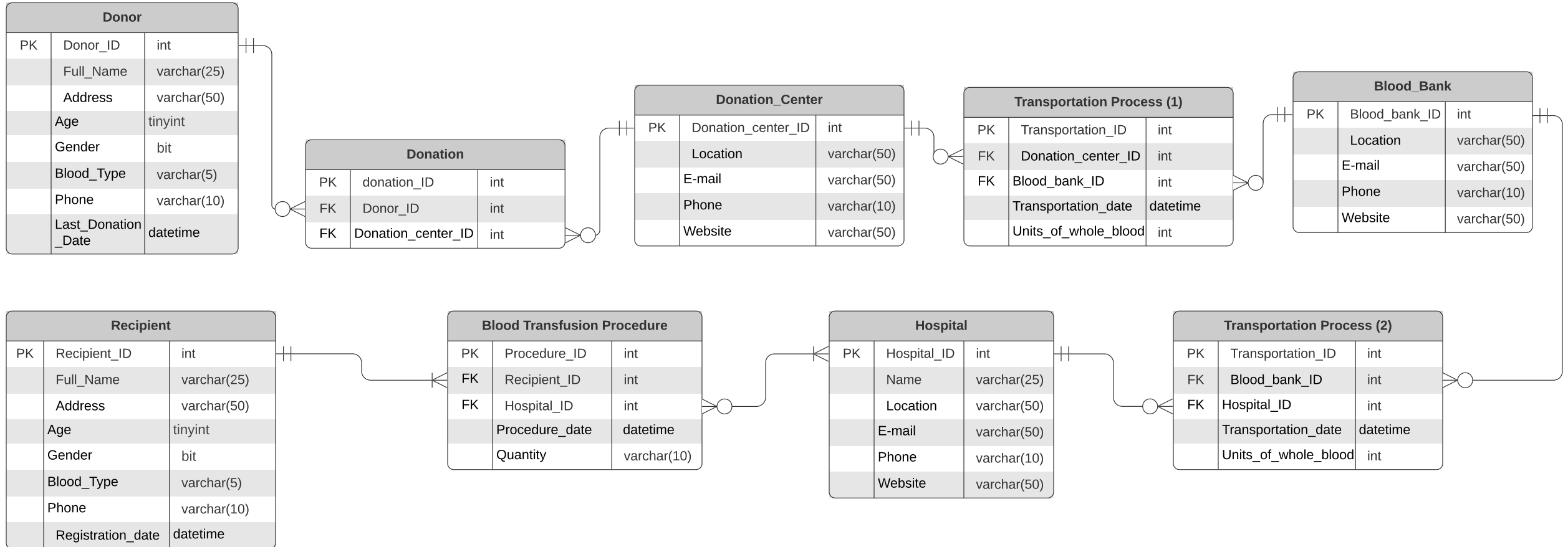# Blood Donation System Database Project
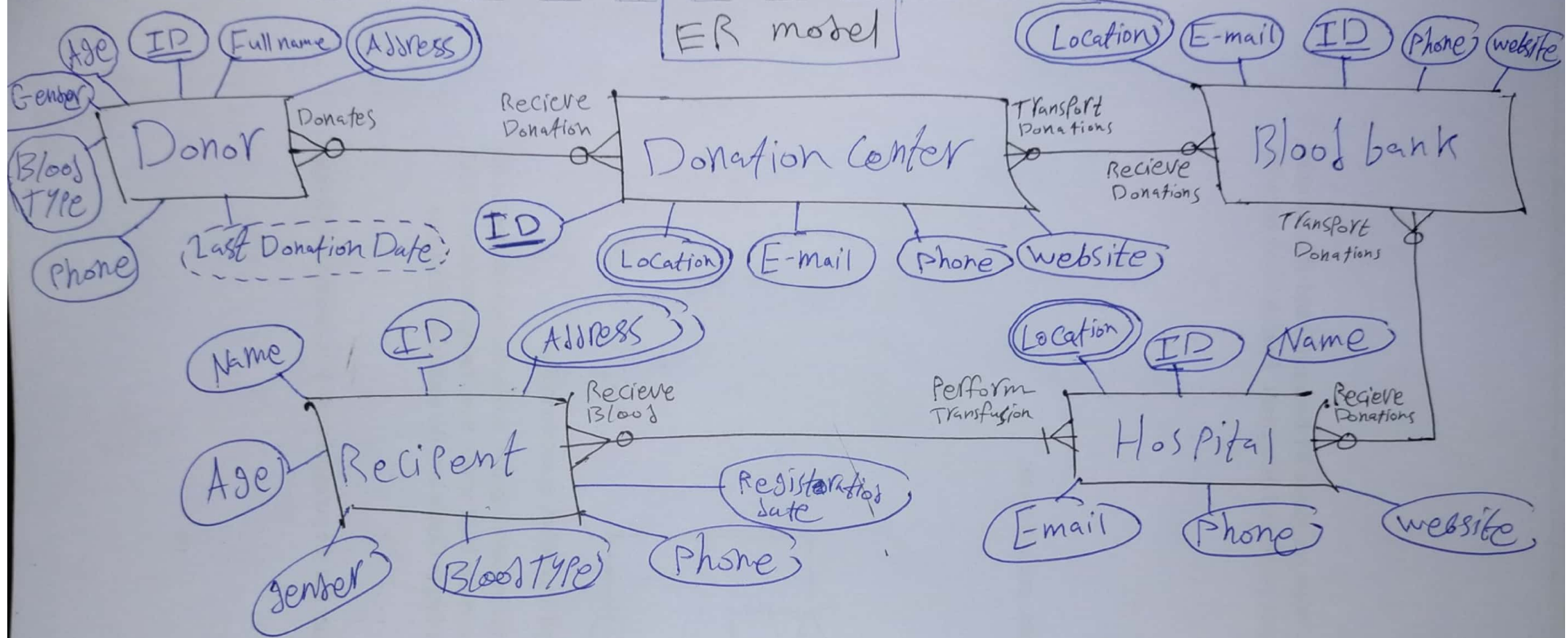
Hesham Omar (20200060) & Mark Joseph (20200225) | May 9, 2021

Blood Donation System Database Project

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Donor

PK	Donor_ID	int
	Full_Name	varchar(25)
	Address	varchar(50)
	Age	tinyint
	Gender	bit
	Blood_Type	varchar(5)
	Phone	varchar(10)
	Last_Donation_Date	datetime

Donation

PK	donation_ID	int
FK	Donor_ID	int
FK	Donation_center_ID	int

Donation_Center

PK	Donation_center_ID	int
	Location	varchar(50)
	E-mail	varchar(50)
	Phone	varchar(10)
	Website	varchar(50)

Transportation Process (1)

PK	Transportation_ID	int
FK	Donation_center_ID	int
FK	Blood_bank_ID	int
	Transportation_date	datetime
	Units_of_whole_blood	int

Blood_Bank

PK	Blood_bank_ID	int
	Location	varchar(50)
	E-mail	varchar(50)
	Phone	varchar(10)
	Website	varchar(50)

Recipient

PK	Recipient_ID	int
	Full_Name	varchar(25)
	Address	varchar(50)
	Age	tinyint
	Gender	bit
	Blood_Type	varchar(5)
	Phone	varchar(10)
	Registration_date	datetime

Blood Transfusion Procedure

PK	Procedure_ID	int
FK	Recipient_ID	int
FK	Hospital_ID	int
	Procedure_date	datetime
	Quantity	varchar(10)

Hospital

PK	Hospital_ID	int
	Name	varchar(25)
	Location	varchar(50)
	E-mail	varchar(50)
	Phone	varchar(10)
	Website	varchar(50)

Transportation Process (2)

PK	Transportation_ID	int
FK	Blood_bank_ID	int
FK	Hospital_ID	int
	Transportation_date	datetime
	Units_of_whole_blood	int

ER model

Donor — attributes: Age, ID, Full name, Address, Gender, Blood Type, Phone, Last Donation Date

Donor **Donates** Donation Center

Donation Center — attributes: ID, Location, E-mail, Phone, Website

Donation Center **Recieve Donation** from Donor

Donation Center **Transport Donations** / **Recieve Donations** Blood bank

Blood bank — attributes: Location, E-mail, ID, Phone, website

Blood bank **Transport Donations**

Recipient — attributes: Name, ID, Address, Age, Gender, Blood Type, Phone, Registration Date

Recipient **Recieve Blood**

Recipient **Perform Transfusion** Hospital

Hospital — attributes: Location, ID, Name, Email, Phone, website

Hospital **Recieve Donations**

Blood Donation System Database Project (Relational model)

Hesham Omar (20200060) & Mark Joseph (20200225)

Donor

DonorID	DonorName	DonorStreet	DonorCity	DonorState	Age	Gender	BloodType	PhoneNumber	LastDonationDate

Donation

DonationID	DonorID	DonationCenterID

DonationCenter

DonationCenterID	DonationCenterName	CenterStreet	CenterCity	CenterState	CenterE-mail	PhoneNumber	Website

Transportation Process (1)

TransportationID	DonationCenterID	BloodBankID	TransportationDate	UnitsOfWholeBlood

BloodBank

BloodBankID	BloodBankName	BloodBankStreet	BloodBankCity	BloodBankState	E-mail	PhoneNumber	Website

Transportation Process (2)

TransportationID	BloodBankID	HospitalID	TransportationDate	UnitsOfWholeBlood

Hospital

HospitalID	HospitalName	HospitalStreet	HospitalCity	HospitalState	HospitalE-mail	PhoneNumber	Website

Blood Transfusion Procedure

ProcedureID	RecipientID	HospitalID	ProcedureDate	Quantity

Recipient

RecipientID	RecipientName	Street	City	State	Age	Gender	BloodType	PhoneNumber	RegistrationDate

	TableName	TableDescription	ColumnName	ColumnDataType
1	dbo.sysdiagrams	NULL	name	nvarchar
2	dbo.sysdiagrams	NULL	principal_id	int
3	dbo.sysdiagrams	NULL	diagram_id	int
4	dbo.sysdiagrams	NULL	version	int
5	dbo.sysdiagrams	NULL	definition	varbinary
6	dbo.Donor	NULL	Donor_ID	int
7	dbo.Donor	NULL	Full_Name	varchar
8	dbo.Donor	NULL	Address	varchar
9	dbo.Donor	NULL	Age	tinyint
10	dbo.Donor	NULL	Gender	bit
11	dbo.Donor	NULL	Blood_Type	varchar
12	dbo.Donor	NULL	Phone	varchar
13	dbo.Donor	NULL	Last_Donation _Da...	datetime
14	dbo.Donation_Cent...	NULL	Donation_center_ID	int
15	dbo.Donation_Cent...	NULL	Location	varchar
16	dbo.Donation_Cent...	NULL	E-mail	varchar
17	dbo.Donation_Cent...	NULL	Phone	varchar
18	dbo.Donation_Cent...	NULL	Website	varchar
19	dbo.Blood_Bank	NULL	Blood_bank_ID	int
20	dbo.Blood_Bank	NULL	Location	varchar
21	dbo.Blood_Bank	NULL	E-mail	varchar
22	dbo.Blood_Bank	NULL	Phone	varchar
23	dbo.Blood_Bank	NULL	Website	varchar
24	dbo.Hospital	NULL	Hospital_ID	int
25	dbo.Hospital	NULL	Name	varchar
26	dbo.Hospital	NULL	Location	varchar
27	dbo.Hospital	NULL	E-mail	varchar
28	dbo.Hospital	NULL	Phone	varchar
29	dbo.Hospital	NULL	Website	varchar
30	dbo.Recipient	NULL	Recipient_ID	int
31	dbo.Recipient	NULL	Full_Name	varchar
32	dbo.Recipient	NULL	Address	varchar
33	dbo.Recipient	NULL	Age	tinyint
34	dbo.Recipient	NULL	Gender	bit
35	dbo.Recipient	NULL	Blood_Type	varchar
36	dbo.Recipient	NULL	Phone	varchar
37	dbo.Recipient	NULL	Registration_date	datetime
38	dbo.Blood _Transfu...	NULL	Procedure_ID	int
39	dbo.Blood _Transfu...	NULL	Recipient_ID	int
40	dbo.Blood _Transfu...	NULL	Hospital _ID	int
41	dbo.Blood _Transfu...	NULL	Procedure_date	datetime
42	dbo.Blood _Transfu...	NULL	Quantity	varchar
43	dbo.Transportation...	NULL	Transportation_ID	int
44	dbo.Transportation...	NULL	Donation_center_ID	int
45	dbo.Transportation...	NULL	Blood_bank_ID	int
46	dbo.Transportation...	NULL	Transportation_date	datetime

47	dbo.Transportation...	NULL	Units_of_whole_bl...	int
48	dbo.Transportation...	NULL	Transportation_ID	int
49	dbo.Transportation...	NULL	Blood_bank_ID	int
50	dbo.Transportation...	NULL	Hospital_ID	int
51	dbo.Transportation...	NULL	Transportation_date	datetime
52	dbo.Transportation...	NULL	Units_of_whole_bl...	int
53	dbo.Donation	NULL	donation_ID	int
54	dbo.Donation	NULL	Donor_ID	int
55	dbo.Donation	NULL	Donation_center_ID	int
56	dbo.Donation	NULL	Donation_date	datetime