

# BLOOD BANK MANAGEMENT SYSTEM

SQL PROJECT BY:- HEMLIN BANCY



The background is a solid dark red color. Scattered throughout the frame are numerous red blood cells, depicted as biconcave discs in various sizes and orientations, some appearing more prominent than others.

# ABOUT BLOOD BANK

Blood Bank gather, categorize, and distribute donated blood to hospitals, ensuring it's safe and compatible. Their vital mission is to supply life saving blood to patients in need.

The background of the slide is a solid dark red color. Scattered across the background are several 3D-rendered red blood cells, which are biconcave discs. They are positioned in the corners and along the edges, creating a medical or biological theme. The cells have a lighter red center and a darker red outer rim, giving them a three-dimensional appearance.

# PROBLEM STATEMENT

Blood Bank face's the challenge of ensuring blood quality and tracking donors effectively. The current system often falls short in maintaining the quality standards and donor records, posing a significant challenge to blood bank Operations.

# DATABASE

01 BLOOD\_DONOR

02 RECIPIENT

03 BB\_MANAGER

04 RECORDING\_STAFF

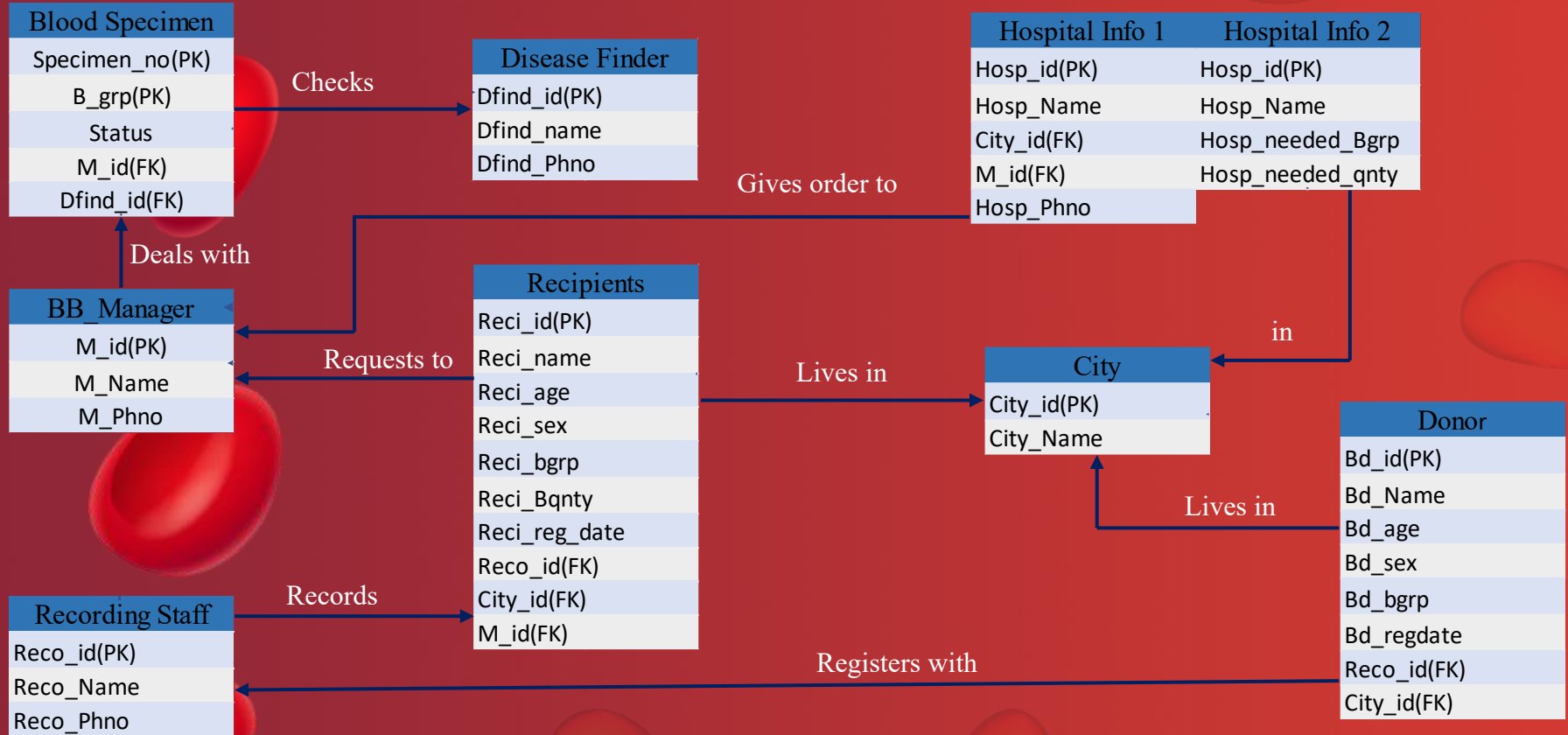
05 BLOOD SPECIMENN

06 DISEASE\_FINDER

07 HOSPITAL\_INFO

08 CITY

# ENTITY RELATIONSHIP DIAGARAM



## Recording staff Table

reco_ID	reco_Name	reco_Phno
101012	Lekha	4044846553
101112	Mark	4045856553
101212	Walcot	4045856553
101312	Henny	4045806553
101412	Silva	4045806553
101512	Adrian	4045806553
101612	Mark	4045806553
101712	Abdul	4045816553
101812	Jerry	4045826553
101912	Tim	4045836553



## Blood Bank Manager Table

	M_ID	mName	m_phno
1	101	Jack	4693951392
2	102	Mark	4693804553
3	103	Dan	4693804552
4	104	Stacy	4693804551
5	105	Henny	4693804550
6	106	Steve	4694959671
7	107	Jason	4694959671
8	108	Stella	4663959671
9	109	Monika	4673959671
10	110	John	4693859671



## RECIPIENT TABLE

reci_name	reci_age	reci_Bgrp	reci_Bqnty	reco_ID	City_ID	M_id	reci_sex	reci_reg_date
Peter	25	B+	1.5	101212	1100	101	M	17-12-2015
Dany	60	A+	1	101312	1100	102	M	16-12-2015
Steve	35	AB+	0.5	101312	1200	102	M	17-10-2015
Parker	66	B+	1	101212	1300	104	M	17-11-2016
Jason	53	B-	1	101412	1400	105	M	17-04-2015
Preetham	45	O+	1.5	101512	1500	105	M	17-12-2015
Swetha	22	AB-	1	101212	1500	101	F	17-05-2015
Swathi	25	B+	2	101412	1300	103	F	14-12-2015
Lance	30	A+	1.5	101312	1100	104	M	16-02-2015
Marsh	25	AB+	3.5	101212	1200	107	M	17-10-2016



## BLOOD DONOR TABLE

bd_ID	bd_name	bd_age	bd_sex	bd_group	bd_reg_date	reco_ID	City_ID	bd_phno
23671	Pat	29	M	O+	19-07-2015	101412	1300	4693951232
23672	Shyam	42	F	A-	24-12-2015	101412	1300	4600001232
23673	Dany	44	M	AB+	28-08-2015	101212	1200	4611111232
23674	Mark	25	M	B+	17-12-2015	101212	1100	4622221232
23675	Abdul	35	F	A+	22-11-2016	101212	1100	4633331232
23676	Mike	33	F	AB-	06-02-2016	101212	1400	4644441232
24566	Carrol	24	M	B-	15-10-2016	101312	1500	4655551232
24567	Smith	22	M	O+	04-01-2016	101312	1200	4666661232
24568	Elisa	31	F	AB+	10-09-2016	101312	1200	4677771232
24569	Mark	29	M	O-	17-12-2016	101212	1200	4688881232

## HOSPITAL INFORMATION 1

hosp_ID	hosp_name	City_ID	M-id	hosp_phno
1	MayoClinic	1100	101	4611001232
2	ClevelandClinic	1200	103	4622001232
3	NYU	1300	103	4633001232
4	Baylor	1400	104	4644001232
5	Charlton	1800	103	4655001232
6	Greenoaks	1300	106	4666001232
7	Forestpark	1300	102	4677001232
8	Parkland	1200	106	4688001232
9	Pinecreek	1500	109	4699001232
10	WalnutHill	1700	105	4691001232

## HOSPITAL INFORMATION 2

hosp_ID	hosp_name	hosp_needed_Bgrp	hosp_needed_qnty
1	MayoClinic	A+	20
1	MayoClinic	A-	40
1	MayoClinic	AB+	0
1	MayoClinic	B-	20
1	MayoClinic	A+	10
2	ClevelandClinic	A-	40
2	ClevelandClinic	AB+	10
2	ClevelandClinic	AB-	20
2	ClevelandClinic	B+	10
2	ClevelandClinic	B-	0
3	NYU	A+	30
3	NYU	A-	0
3	NYU	AB+	0
3	NYU	AB-	0
3	NYU	B+	0
3	NYU	B-	10
4	Baylor	A+	20
4	Baylor	A-	10
7	Forestpark	B-	40
8	Parkland	B+	10
9	Pinecreek	AB-	20

## DISEASE FINDER TABLE

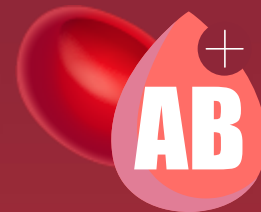
	dfind_10	dfind_name	dfind_phno
1	11	Peter	4693804223
2	12	Park	4693804223
3	13	Jerry	4693804223
4	14	Mark	4693804223
5	15	Monika	4693804223
6	16	Ram	4693804123
7	17	Swathi	4693804223
8	18	Gautham	4693804323
9	19	Ashwin	4693804423
10	20	Yash	4693804523

## CITY TABLE

	City-ID	City_name
1	1100	Dallas
2	1200	Austin
3	1300	Irving
4	1400	Houston
5	1500	Richardson
6	1600	Plano
7	1700	Frisco
8	1800	Arlington
9	1900	San Antonio
10	2000	Allen

## BLOOD SPECIMEN TABLE

	specimen_no	b_group	status	dfind_ID	m_id
1	1001	B+	1	11	101
2	1002	O+	1	12	102
3	1003	AB+	1	11	102
4	1004	O-	1	13	103
5	1005	A+	0	14	101
6	1006	A-	1	13	104
7	1007	AB-	1	15	104
8	1008	AB-	0	11	105
9	1009	B+	1	13	105
10	1010	O+	0	12	105
11	1011	O+	1	13	103
12	1012	O-	1	14	102
13	1013	B-	1	14	102
14	1014	AB+	0	15	101



1. Create a View of recipients and donors names having the same blood group registered on the same date.

```
select reci_name, bd_name  
from recipient inner join blood_donor  
on recipient.reco_ID=blood_donor.reco_ID  
where recipient.reci_Brgp=blood_donor.Bd_bgroup and recipient.reci_reg_date=blood_donor.bd_reg_date;
```

OUTPUT:

Result Grid			Filter Rows:	
	reci_name	bd_name		
▶	Mark	Mark		



2. Show the blood specimen verified by disease finder Mark which are pure (status=1).

```
select*  
from bloodspecimen  
where status=1 and dfind_id in (select dfind_id  
from diseasefinder  
where dfind_name='mark');
```

OUTPUT

	specimen_number	b_group	status	dfind_ID	M_id
►	1012	O-	1	14	102
	1013	B-	1	14	102

## Search for donors by blood type:

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `SearchDonorsByBloodType`(BloodType VARCHAR(3))  
BEGIN  
SELECT * FROM blood_donor WHERE bd_Bgroup = BloodType;  
END
```

3. Can you find all donors with blood type A+.

```
call SearchDonorsByBloodType ('A+');
```

	bd_ID	bd_name	bd_age	bd_sex	bd_Bgroup	bd_reg_date	reco_ID	City_ID
►	160011	Abdul	35	F	A+	2016-11-22	101212	1100

4. Show the pure blood specimen handled by Blood bank Manager who also handles a recipient needing the same blood group along with the details of the Blood Bank Manager and Recipient.

```
select M_id,reci_name,reci_Brgp
from recipient
where M_id in(select M_id
from bloodspecimen
where reci_Brgp in (select b_group
from recipient
where status=1));
```

OUTPUT:

	M_id	reci_name	reci_Brgp
▶	101	Mark	B+
	102	Steve	AB+



5. Show the donors having the same blood groups required by the recipient staying in the same city along with recipient details.

```
select E1.bd_ID as blood_donor_id,  
E1.bd_name as blood_donor_name,  
E1.City_ID as blood_donor_city,  
E2.reci_ID as recipient_id,  
E2.reci_name as recipient_name,  
E2.City_ID as recipient_city  
from blood_donor as E1,recipient as E2  
where E1.bd_Bgroup=E2.reci_Brgp and E1.City_ID=E2.City_ID;
```



OUTPUT:

Result Grid						
		Filter Rows:		Export:	Wrap Cell Content:	
	blood_donor_id	blood_donor_name	blood_donor_city	recipient_id	recipient_name	recipient_city
▶	150221	Mark	1100	10001	Mark	1100
	160011	Abdul	1100	10002	Dan	1100
	160301	Elisa	1200	10003	Steve	1200
	150121	Dan	1200	10003	Steve	1200
	160011	Abdul	1100	10009	Lance	1100
	160301	Elisa	1200	10010	Marsh	1200
	150121	Dan	1200	10010	Marsh	1200

6. Display the information of Hospital\_Info\_1 handled by Blood Bank Manager whose ID is 103:

```
select hosp_ID,hosp_name,M_ID
from hospital_info_1
where M_ID in (select M_ID
from bb_manager
where M_ID=103);
```

OUTPUT:

Result Grid				Filter Rows:
	hosp_ID	hosp_name	M_ID	
▶	2	ClevelandClinic	103	
	3	NYU	103	
	5	Charlton	103	

## 7.Insert a record in the table of Recording Staff.

```
DELIMITER //  
create trigger before_insert_staffdata  
before insert on recording_staff for each row  
begin  
set new.Reco_id=102112;  
END //  
  
insert into recording_staff values(102112,'Allwin',4045836554);  
  
select* from recording_staff;
```

OUTPUT:

Result Grid		Filter Rows:	
	reco_ID	reco_Name	reco_phNo
	101412	Silva	4045806553
	101512	Adrian	4045806553
	101612	Mark	4045806553
	101712	Abdul	4045816553
	101812	Jerry	4045826553
	101912	Tim	4045836553
	101012	Lekha	4044846553
	101112	Mark	4045856553
	102112	Allwin	4045836554
	102112	Allwin	4045836554
	102112	Allwin	4045836554

THANKS!