

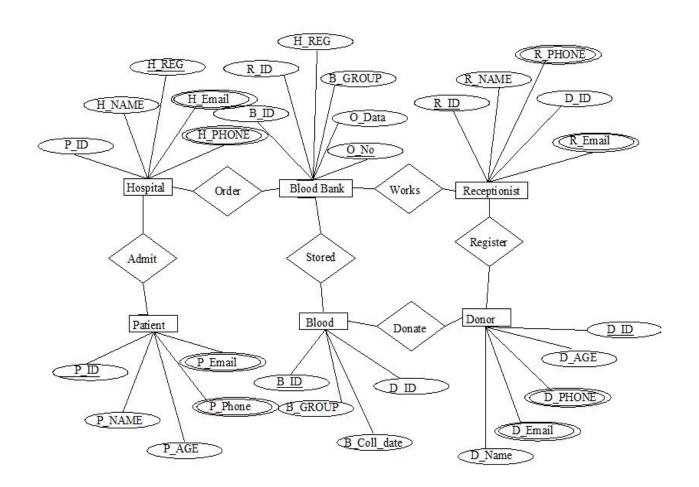
Project Topic : Hospital Management System Course Name : Introduction to database

Section: G

Group Name: PHOENIX

SL	NAME	ID
1	MD SUMON	20-42556-1
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ERD Diagram



NORMALIZETION

Admit:

UNF:

 $Admit \ (\underline{P_ID}, P_NAME, P_AGE, P_PHONE, P_EMAIL, \underline{H_REG}, H_NAME, H_PHONE, H_EMAIL, P_ID)$

1NF

P_PHONE, P_EMAIL, H_PHONE, H_EMAIL are multivalued attribute.

1. <u>P_ID</u>, P_NAME, P_AGE, P_PHONE, P_EMAIL, <u>H_REG</u>, H_NAME, H_PHONE, H_EMAIL, P_ID

2NF

- 1. P ID, P NAME, P AGE, P PHONE, P EMAIL
- 2. H REG, H NAME, H PHONE, H EMAIL, P ID

There is no transitive dependency. Relation already in 3NF.

- 1. P ID, P NAME, P AGE, P PHONE, P EMAIL
- 2. H_REG, H_NAME, H_PHONE, H_EMAIL, P_ID

Table Creation:

- 1. P ID, P NAME, P AGE, P PHONE, P EMAIL
- 2. H REG, H NAME, H PHONE, H EMAIL, P ID

Order:

UNF:

Order (<u>H_REG</u>, H_NAME, H_PHONE, H_EMAIL, <u>O_NO</u>, O_DATE, B_GROUP, B_ID, H_REG) **1NF**

H_PHONE, H_EMAIL are multivalued attribute.

- 1. <u>H_REG</u>, H_NAME, H_PHONE, H_EMAIL, <u>O_NO</u>, O_DATE, B_GROUP, B_ID, H_REG **2NF**
- 1. <u>H_REG</u>, H_NAME, H_PHONE, H_EMAIL
- 2. O_NO, O_DATE, B_GROUP, B_ID, H_REG

3NF

There is no transitive dependency. Relation already in 3NF.

- 1. H REG, H NAME, H PHONE, H EMAIL
- 2. O NO, O DATE, B GROUP, B ID, H REG

<u>Table Creation:</u>

- 1. H REG, H NAME, H PHONE, H EMAIL
- 2. O NO, O DATE, B GROUP, B ID, H REG

Works:

UNF

Works (<u>R_ID</u>, R_NAME, R_PHONE, R_EMAIL, <u>O_NO</u>, O_DATE, B_GROUP, B_ID, H_REG, R_ID) $\underline{1NF}$

R PHONE, R EMAIL are multivalued attribute.

- 1. <u>R_ID</u>, R_NAME, R_PHONE, R_EMAIL, <u>O_NO</u>, O_DATE, B_GROUP, B_ID, H_REG, R_ID <u>2NF</u>
 - 1. R ID, R NAME, R PHONE, R EMAIL

2. O_NO, O_DATE, B_GROUP, B_ID, H_REG, R_ID

3NF

There is no transitive dependency .Relation already in 3NF

- 1. <u>R_ID_NO</u>, R_NAME, R_PHONE, R_EMAIL
- 2. O_NO, O_DATE, B_GROUP, B_ID, H_REG, R_ID

Table Creation:

- 1. R_ID, R_NAME, R_PHONE, R_EMAIL
- 2. O NO, O DATE, B GROUP, B ID, H REG, R ID

Register:

UNF

Register (<u>D_ID</u>, D_NAME, D_AGE, D_PHONE, D_EMAIL, <u>R_ID</u>, R_NAME, R_PHONE, R_EMAIL, D_ID)
1NF

D PHONE, D EMAIL, R PHONE, R EMAIL are multivalued attribute.

1. <u>D_ID</u>, D_NAME, D_AGE, D_PHONE, D_EMAIL, <u>R_ID</u>, R_NAME, R_PHONE, R_EMAIL, D_ID

2NF

- 1. D ID, D NAME, D AGE, D PHONE, D EMAIL
- 2. R ID, R NAME, R PHONE, R EMAIL, D ID

3NF

There is no transitive dependency. Relation already in 3NF

- 1. <u>D ID</u>, D NAME, D AGE, D PHONE, D EMAIL
- 2. R ID, R NAME, R PHONE, R EMAIL, D ID

Table Creation:

- 1. <u>D ID</u>, D NAME, D_AGE, D_PHONE, D_EMAIL
- 2. R ID, R NAME, R PHONE, R EMAIL, D ID

Donate

<u>UNF</u>

Donate (<u>D_ID</u>, <u>D_NAME</u>, <u>D_AGE</u>, <u>D_PHONE</u>, <u>D_EMAIL</u>, <u>B_ID</u>, <u>B_COLL_DATE</u>, <u>B_GROUP</u>, <u>D_ID</u>) 1NF

D PHONE, D EMAIL, are multivalued attribute.

- 1. <u>D_ID</u>, D_NAME, D_AGE, D_PHONE, D_EMAIL, <u>B_ID</u>, B_COLL_DATE, B_GROUP, D_ID <u>2NF</u>
 - 1. <u>D_ID</u>, D_NAME, D_AGE, D_PHONE, D_EMAIL
- 2. <u>B_ID</u>, B_COLL_DATE, B_GROUP, D_ID 3NF

There is no transitive dependency .Relation already in 3NF

- 1. <u>D_ID</u>, D_NAME, D_AGE, D_PHONE, D_EMAIL
- 2. <u>B_ID</u>, B_COLL_DATE, B_GROUP, D_ID Table Creation:
 - 1. <u>D_ID</u>, D_NAME, D_AGE, D_PHONE, D_EMAIL
 - 2. <u>B ID</u>, B COLL DATE, B GROUP, **D ID**

Stored:

UNF

Stored (B_ID, B_COLL_DATE, B_GROUP, O_NO, O_DATE, B_GROUP, B_ID, H_REG, R_ID.NO) 1NF

1. <u>B ID</u>, B COLL DATE, B GROUP, O NO, O DATE, B GROUP, B ID, H REG, R ID

2NF

- 1. B ID, B COLL DATE, B GROUP
- 2. O DATE, B GROUP, B ID, H REG, R ID

3NF

There is no transitive dependency. Relation already in 3NF.

- 1. <u>B ID</u>, B COLL DATE, B GROUP
- 2. O_DATE, B_GROUP, B_ID, H_REG, R_ID

<u>Table Creation:</u>

- 1. B ID, B COLL DATE, B GROUP
- 2. O DATE, B GROUP, B ID, H REG, R ID

Temporary Tables:

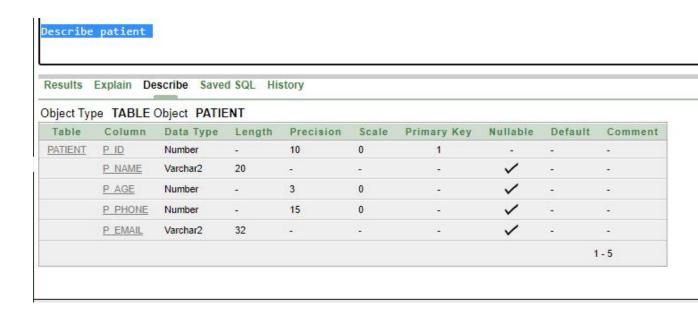
- 1. P ID, P NAME, P AGE, P PHONE, P EMAIL
- 2. H REG, H NAME, H PHONE, H EMAIL, P ID
- 3. H REG, H NAME, H PHONE, H EMAIL
- 4. O NO, O DATE, B GROUP, B ID, H REG
- 5. R ID, R NAME, R PHONE, R MAIL
- 6. O NO, O DATE, B GROUP, B ID, H REG, R ID
- 7. <u>D ID</u>, D NAME, D AGE, D PHONE, D EMAIL
- 8. <u>D_ID</u>, D_NAME, D_AGE, D_PHONE, D_EMAIL
- 9. R ID, R NAME, R PHONE, R EMAIL, D ID
- 10. B ID, B COLL DATE, B GROUP, D ID
- 11. B ID, B COLL DATE, B GROUP
- 12. O DATE, B GROUP, B ID, H REG, R ID

Final Tables:

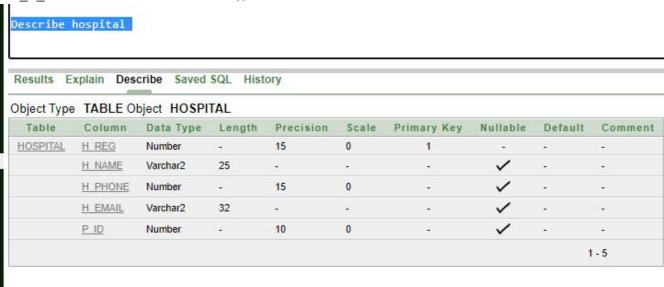
- 1. P_ID, P_NAME, P_AGE, P_PHONE, P_EMAIL
- 2. H REG, H NAME, H PHONE, H EMAIL, P ID
- 3. D ID, D NAME, D AGE, D PHONE, D EMAIL
- 4. R ID, R NAME, , R PHONE, R EMAIL, D ID
- 5. B ID, B COLL DATE, B GROUP, D ID
- 6. O NO, O DATE, B GROUP, H REG, B ID, R ID

Table Creation

1. CREATE TABLE PATIENT(P_ID NUMBER(10) CONSTRAINT PK_PATIENT PRIMARY KEY, P_NAME VARCHAR2(20), P_AGE NUMBER(3), P_PHONE NUMBER(15), P_EMAIL VARCHAR2(32));

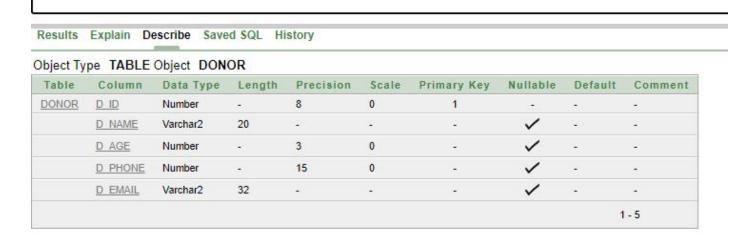


2. CREATE TABLE HOSPITAL(H_REG NUMBER(15) CONSTRAINT PK_HOSPITAL PRIMARY KEY, H_NAME VARCHAR2(80), H_PHONE NUMBER(20), H_EMAIL VARCHAR2(32), P_ID NUMBER(10) CONSTRAINT FK P ID REFERENCES PATIENT);



3. CREATE TABLE DONOR (D_ID NUMBER(8) CONSTRAINT PK_DONOR PRIMARY KEY, D_NAME VARCHAR2(20), D_AGE NUMBER(3), D_PHONE NUMBER(15), D_EMAIL VARCHAR2(32));





4. CREATE TABLE RECIPTIONIST(R_ID NUMBER(10) CONSTRAINT PK_RECIPTIONIST PRIMARY KEY, R_NAME VARCHAR2(20), D_ID NUMBER(8) CONSTRAINT FK_D_ID REFERENCES DONOR, R_PHONE NUMBER(15), R_EMAIL VARCHAR2(32));



5. CREATE TABLE BLOOD(B_ID NUMBER(10) CONSTRAINT PK_BLOOD PRIMARY KEY, B COLL DATE DATE, B GROUP VARCHAR2(13),D ID NUMBER(8));

Language: en-us

6. CREATE TABLE BLOOD_BANK(O_NO NUMBER(8) CONSTRAINT PK_BLOOD_BANK PRIMARY KEY, O_DATE DATE, B_GROUP VARCHAR2(13), H_REG NUMBER(15) CONSTRAINT FK_H_REG REFERENCES HOSPITAL, B_ID NUMBER(10) CONSTRAINT FK_B_ID REFERENCES BLOOD, R_ID NUMBER(10) CONSTRAINT FK_R_ID REFERENCES RECIPTIONIST);

Results Expla	in Describ	e Saved SQL	History						
Object Type T	ABLE Object	t BLOOD_B	ANK						
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
BLOOD BANK	<u>0 NO</u>	Number	-	8	0	1	-	7	
	O DATE	Date	7	72	1.	2	/	2	2
	B GROUP	Varchar2	13	(L	12	6	/	ë.	÷
	H REG	Number	-	15	0	5-	/	1	-
	B ID	Number	-	10	0	9	/	-	-
	R ID	Number		10	0		/	-	
								1	- 6

INSERT INTO PATIENT VALUES (108012, 'Maimona', 21, 01956426161, 'maimona519@gmail.com');
INSERT INTO PATIENT VALUES (102530, 'Timo', 32, 01351528976, 'tomo42952@gmail.com');
INSERT INTO PATIENT VALUES (102567, 'Momo', 26, 01731852405, 'momo2021@gmail.com');
INSERT INTO PATIENT VALUES (101988, 'Shakil', 35, 01710832838, 'shakilbfc@gmail.com');
INSERT INTO PATIENT VALUES (101912, 'Saymon', 28, 01310801256, 'saymonbfc@gmail.com');
INSERT INTO PATIENT VALUES (102624, 'Jamal', 56, 01552319480, 'jamal7788@gmail.com');
INSERT INTO PATIENT VALUES (109023, 'Rabby', 39, 01949531513, 'rabby49@gmail.com');
INSERT INTO PATIENT VALUES (101632, 'Ronny', 29, 01623057540, 'ronny2020@gmail.com');
INSERT INTO PATIENT VALUES (102423, 'Asif', 20, 01789403507, 'ajasif9895@gmail.com');
INSERT INTO PATIENT VALUES (102920, 'Ismail', 24, 01795006559, 'ismailkholifa@gmail.com');
SELECT * FROM PATIENT;

Results	Explain I	Describe	Saved SQL H	istory
P_ID	P_NAME	P_AGE	P_PHONE	P_EMAIL
108012	Maimona	21	1956426161	maimona519@gmail.com
102530	Timo	32	1351528976	tomo42952@gmail.com
102567	Momo	26	1731852405	momo2021@gmail.com
101988	Shakil	35	1710832838	shakilbfc@gmail.com
101912	Saymon	28	1310801256	saymonbfc@gmail.com
102624	Jamal	56	1552319480	jamal7788@gmail.com
109023	Rabby	39	1949531513	rabby49@gmail.com
101632	Ronny	29	1623057540	ronny2020@gmail.com
102423	Asif	20	1789403507	ajasif9895@gmail.com
102920	Ismail	24	1795006559	ismailkholifa@gmail.com

<u>Insert value in HOSPITAL table:</u>

INSERT INTO HOSPITAL VALUES (123589, 'United Hospital Limited', 028836444,'info@uhlbd.com', 108012);

INSERT INTO HOSPITAL VALUES (123590, 'Apollo Hospital', 09666710678, 'infodelhi@apollohospitals.com', 102530);

INSERT INTO HOSPITAL VALUES (123591, 'Labaid Hospital', 09666710606,'info@labaidgroup.com', 102567);

INSERT INTO HOSPITAL VALUES (123592, 'Ibn Sina Hospital', 01832820950, 'info@ibnsinatrust.com', 101988);

INSERT INTO HOSPITAL VALUES (123593, 'Popular Hospital', 09666787801, 'info@populardiagnostic.com', 101912);

INSERT INTO HOSPITAL VALUES (123598, 'Dhaka Medical College', 01713033375, 'info.dmcc@dmc.com', 102920);

INSERT INTO HOSPITAL VALUES (123594, 'AMZ Hospital', 01847331010,info@amzhopitalbd.com', 102624);

INSERT INTO HOSPITAL VALUES (123595, 'BSMMU Hospital', 01664695552,'info@bsmmu.com', 109023);

INSERT INTO HOSPITAL VALUES (123596, 'Euro-Bangla Hospital', 01971008009, 'info@euroheart.com', 101632);

INSERT INTO HOSPITAL VALUES (123597, 'Basundhura Hospital', 01955665552, 'info@basundura.com', 102423);

SELECT * FROM HOSPITAL;

SELECT * FROM HOSPITAL;

H_REG	H_NAME	H_PHONE	H_EMAIL	P_ID
123589	United Hospital Limited	28836444	info@uhlbd.com	108012
123590	Apollo Hospital	9666710678	infodelhi@apollohospitals.com	102530
123591	Labaid Hospital	9666710606	info@labaidgroup.com	102567
123592	Ibn Sina Hospital	1832820950	info@ibnsinatrust.com	101988
123593	Popular Hospital	9666787801	info@populardiagnostic.com	101912
123598	Dhaka Medical College	1713033375	info.dmcc@dmc.com	102920
123595	BSMMU Hospital	1664695552	info@bsmmu.com	109023
123596	Euro-Bangla Hospital	1971008009	info@euroheart.com	101632
123597	Basundhura Hospital	1955665552	info@basundura.com	102423
123594	AMZ Hospital	1847331010	info@amzhopitalbd.com	102624

Insert value in DONOR table:

INSERT INTO DONOR VALUES (912340, 'SUMON', 22, 01531057540, 'sumon.bncd@gmail.com');

INSERT INTO DONOR VALUES (912341, 'SADIQ', 21, 01920028027, 'sadiq9897@gmail.com');

INSERT INTO DONOR VALUES (912342, 'MUSFIQ', 23, 01731529480, 'musfiq1999@gmail.com');

INSERT INTO DONOR VALUES (912343, 'SUMU', 29, 0173154579, 'sumu9897@gmail.com');

INSERT INTO DONOR VALUES (912344, 'JIBON', 23, 01989786545, 'jibonbfc@gmail.com');

INSERT INTO DONOR VALUES (912345, 'Aubdulla', 28, 01823285671, 'aubdulla');

INSERT INTO DONOR VALUES (912346, 'Badsha', 20, 01410077635, 'badsha2020@gmail.com');

INSERT INTO DONOR VALUES (912347, 'King', 40, 01849533870, 'kingkhan@gmail.com');

INSERT INTO DONOR VALUES (912348, 'Raj', 22, 01977556897, 'rajjoy@gmail.com');

INSERT INTO DONOR VALUES (912349, 'HOSSEN', 23, 0193018886, 'hossan@gmail.com');

SELECT * FROM DONOR;

Results	Explain D	escribe S	aved SQL H	istory
D_ID	D_NAME	D_AGE	D_PHONE	D_EMAIL
912340	SUMON	22	1531057540	sumon.bncd@gmail.com
912341	SADIQ	21	1920028027	sadiq9897@gmail.com
912342	MUSFIQ	23	1731529480	musfiq1999@gmail.com
912343	SUMU	29	173154579	sumu9897@gmail.com
912344	JIBON	23	1989786545	jibonbfc@gmail.com
912345	Aubdulla	28	1823285671	aubdulla320@gmail.com
912346	Badsha	20	1410077635	badsha2020@gmail.com
912347	King	40	1849533870	kingkhan@gmail.com
912348	Raj	22	1977556897	rajjoy@gmail.com
912349	HOSSEN	23	193018886	hossan@gmail.com

<u>Insert value in RECIPTIONIST table:</u>

INSERT INTO RECIPTIONIST VALUES (191211, 'AKHI', 912340, 01765432897, 'akhi9898@gmail.com');

INSERT INTO RECIPTIONIST VALUES (191212, 'RAFI', 912341, 01943444563, 'rafibfc2018@gmail.com');

INSERT INTO RECIPTIONIST VALUES (191213, 'Eashita', 912342, 01654998999, 'eashitacomilla@gmail.com');

INSERT INTO RECIPTIONIST VALUES (191214, 'Inty', 912343, 0197777898767, 'Inty2019@gmail.com');

INSERT INTO RECIPTIONIST VALUES (191215, 'Joysoree', 912344, 017676755555, 'joysoree@gmail.com');

INSERT INTO RECIPTIONIST VALUES (191216, 'Shafina', 912345, 01622225644, 'shafina@gmail.com');

INSERT INTO RECIPTIONIST VALUES (191217, 'Amit Hassan', 912346, 01760008761, 'Amithassan@gmail.com');

INSERT INTO RECIPTIONIST VALUES (191218, 'Shahaporan Sakib', 912347, 01968333555, 'sakib75@gmail.com');

INSERT INTO RECIPTIONIST VALUES (191219, 'Shila', 912346, 01923084535, 'shila@gmail.com');

INSERT INTO RECIPTIONIST VALUES (191220, 'Lubna', 912349, 01321786121, 'lubna@gmail.com');

SELECT * FROM RECIPTIONIST;

SELECT * FROM RECIPTIONIST; Results Explain Describe Saved SQL History R_PHONE R_ID R_NAME D_ID R_EMAIL 191211 AKHI 912340 1765432897 akhi9898@gmail.com 191212 RAFI 912341 1943444563 rafibfc2018@gmail.com 191213 Eashita 912342 1654998999 eashitacomilla@gmail.com 191214 Inty2019@gmail.com Inty 912343 197777898767 191215 Joysoree 912344 17676755555 joysoree@gmail.com 191216 Shafina 912345 1622225644 shafina@gmail.com 191217 Amit Hassan 912346 1760008761 Amithassan@gmail.com 191218 Shahaporan Sakib 912347 1968333555 sakib75@gmail.com 191219 Shila 912346 1923084535 shila@gmail.com 912349 191220 Lubna 1321786121 lubna@gmail.com 10 rows returned in 0.01 seconds CSV Export Language: en-us

Insert value in BLOOD table:

INSERT INTO BLOOD VALUES (161230, to_date('22-02-2021','dd-mm-yyyy'), 'B (+)TIVE', 912340);

INSERT INTO BLOOD VALUES (161231, to_date('23-02-2021','dd-mm-yyyy'), 'A (-)TIVE'912341);

INSERT INTO BLOOD VALUES (161232, to_date('25-02-2021','dd-mm-yyyy'), 'A (+)TIVE', 912342);

INSERT INTO BLOOD VALUES (161233, to_date('26-02-2021','dd-mm-yyyy'), 'B (-)TIVE', 912343);

INSERT INTO BLOOD VALUES (161234, to_date('27-02-2021','dd-mm-yyyy'), 'B (-)TIVE', 912344);

INSERT INTO BLOOD VALUES (161235, to_date('28-02-2021','dd-mm-yyyy'), 'B (+)TIVE', '3 cells counted ok', 912345);

INSERT INTO BLOOD VALUES (161236, to_date('05-03-2021','dd-mm-yyyy'), 'O (-)TIVE', 912346);

INSERT INTO BLOOD VALUES (161237, to_date('07-03-2021','dd-mm-yyyy'), 'O (+)TIVE', 912347);

INSERT INTO BLOOD VALUES (161238, to_date('08-03-2021','dd-mm-yyyy'), 'AB (-)TIVE', 912348);

INSERT INTO BLOOD VALUES (161239, to_date('09-03-2020','dd-mm-yyyy'), 'AB (+)TIVE', 912349);

SELECT * FROM BLOOD;

Results	Explain Describe	Saved SQL	History
B_ID	B_COLL_DATE	B_GROUP	D_ID
161230	22-FEB-21	B (+)TIVE	912340
161231	23-FEB-21	A (-)TIVE	912341
161232	25-FEB-21	A (+)TIVE	912342
161233	26-FEB-21	B (-)TIVE	912343
161234	27-FEB-21	B (-)TIVE	912344
161235	28-FEB-21	B (+)TIVE	912345
161236	05-MAR-21	O (-)TIVE	912346
161237	07-MAR-21	O (+)TIVE	912347
161238	08-MAR-21	AB (-)TIVE	912348
161239	09-MAR-20	AB (+)TIVE	912349

<u>Insert value in BLOOD_BANK table:</u>

INSERT INTO BLOOD_BANK VALUES (1981, to_date('24-02-2021','dd-mm-yyyy'), 'B POSITIVE', 123589, 161235, 191211);

INSERT INTO BLOOD_BANK VALUES (1982, to_date('27-02-2021','dd-mm-yyyy'), 'A POSITIVE', 123590, 161237, 191212);

INSERT INTO BLOOD_BANK VALUES (1983, to_date('01-03-2021','dd-mm-yyyy'), 'O POSITIVE', 123591, 161236, 191213);

INSERT INTO BLOOD_BANK VALUES (1984, to_date('01-03-2021','dd-mm-yyyy'), 'B NEGATIVE', 123592, 161234, 191214);

INSERT INTO BLOOD_BANK VALUES (1985, to_date('09-03-2021','dd-mm-yyyy'), 'A NEGATIVE', 123593, 161232, 191215);

INSERT INTO BLOOD_BANK VALUES (1986, to_date('19-03-2021','dd-mm-yyyy'), 'O NEGATIVE', 123594, 161231, 191216);

INSERT INTO BLOOD_BANK VALUES (1987, to_date('22-03-2021','dd-mm-yyyy'), 'AB NEGATIVE', 123597, 161233, 191217);

INSERT INTO BLOOD BANK VALUES (1988, to date('25-03-2021','dd-mm-yyyy'), 'AB

POSITIVE', 123598, 161238, 191218);

INSERT INTO BLOOD_BANK VALUES (1989, to_date('28-03-2021','dd-mm-yyyy'), 'O POSITIVE', 123590, 161230, 191219);

INSERT INTO BLOOD_BANK VALUES (1990, to_date('29-03-2021','dd-mm-yyyy'), 'B NEGATIVE', 123589, 161239, 191220);

SELECT* FROM BLOOD_BANK;

Results Explain Describe Saved SQL History

SELECT* FROM BLOOD BANK;

O_NO	O_DATE	B_GROUP	H_REG	B_ID	R_ID
1981	24-FEB-21	B POSITIVE	123589	161235	191211
1982	27-FEB-21	A POSITIVE	123590	161237	191212
1983	01-MAR-21	O POSITIVE	123591	161236	191213
1984	01-MAR-21	B NEGATIVE	123592	161234	191214
1985	09-MAR-21	A NEGATIVE	123593	161232	191215
1986	19-MAR-21	O NEGATIVE	123594	161231	191216
1987	22-MAR-21	AB NEGATIVE	123597	161233	191217
1988	25-MAR-21	AB POSITIVE	123598	161238	191218
1989	28-MAR-21	O POSITIVE	123590	161230	191219
1990	29-MAR-21	B NEGATIVE	123589	161239	191220

10 rows returned in 0.00 seconds

CSV Export

Language: en-us