

# Application for Blood Bank Management System

## Milestone: SQL Implementation

**Group 2**  
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Percentage of effort contributed by Jwalit Shah - 100%

Signature of Jwalit Shah

A handwritten signature in black ink, appearing to be 'J. Shah' with a stylized flourish at the end.

Submission Date - 5 November 2022

```
CREATE DATABASE BBMS;

USE BBMS;

CREATE table Donor(
Donor_id numeric(20) Primary Key,
First_name varchar(20) Not Null,
Last_name varchar(20) Not Null,
Donor_blood_group Enum('A+', 'A-', 'B+', 'B-', 'AB+', 'AB-', 'O+', 'O-') Not Null,
Zip_code numeric(20) Not Null,
Contact_no numeric(10) Unique,
Gender Enum('Male', 'Female', 'Other') Not Null,
Weight numeric (20) Not Null,
Age numeric(20) Not Null,
Quantity_donated numeric(20) Not Null,
Disease varchar(20),
Last_donation_date date,
Last_alcohol_consumption_date date
);
```

```
CREATE table Recipient(
Recipient_id numeric(20) Primary Key,
First_name varchar(20) Not Null,
Last_name varchar(20) Not Null,
Recipient_blood_group Enum('A+', 'A-', 'B+', 'B-', 'AB+', 'AB-', 'O+', 'O-') Not Null,
Zip_code numeric(20) Not Null,
Contact_no numeric(10) Unique,
Gender Enum('Male', 'Female', 'Other') Not Null,
Weight numeric (20) Not Null,
Age numeric(20) Not Null,
```

```
Quantity_required numeric(20) Not Null,  
Transaction_id numeric(20) Not Null unique,  
date_of_requirement date Not Null  
);
```

```
CREATE table Analysis(  
Donation_id numeric(20) Primary Key,  
Quality varchar(20) Not Null,  
Haemoglobin_level numeric(20) Not Null,  
Iron_level numeric(20) Not Null,  
RBC_Count numeric(20) Not Null,  
WBC_Count numeric(20) Not Null,  
Platelet_Count numeric(20) Not Null,  
Donor_id numeric(20) Not Null,  
Blood_id numeric(20) Not Null,  
Foreign Key (Blood_id) references Blood(Blood_id)  
);
```

```
CREATE table Blood(  
Blood_id numeric(20) Primary Key,  
Blood_type Enum('Positive','Negative') Not Null,  
Blood_group Enum('A','B','AB','O') Not Null,  
Collection_date date Not Null,  
Donor_id numeric(20) Not Null,  
Event_code numeric(20) Not Null,  
Foreign Key (Donor_id) references Donor(Donor_id),  
Foreign Key (Event_code) references Events(Event_code)
```

);

```
CREATE table Events(  
Event_code numeric(20) Primary Key,  
Event_name varchar(20) Not Null,  
location varchar(20) Not Null,  
Event_type Enum('School','University','Company') Not Null,  
Bloodbank_id numeric(20) Not Null,  
Foreign Key (Bloodbank_id) references Bloodbanks(Bloodbank_id)  
);
```

```
CREATE table Hospitals(  
Hospital_id numeric(20) Primary Key,  
Hospital_name varchar(20) Not Null Unique,  
Amount_available numeric(20),  
Bloodbank_id numeric(20) Not Null,  
Payment_id numeric(20) Not Null,  
Recipient_id numeric(20) Not Null,  
Foreign Key (Bloodbank_id) references Bloodbanks(Bloodbank_id),  
Foreign Key (Recipient_id) references Recipient(Recipient_id),  
Foreign Key (Payment_id) references Payment(Payment_id)  
);
```

```
CREATE table Payment(  
Payment_id numeric(20) Primary Key,  
Amount numeric(20) Not Null,  
Payment_date date Not Null,  
Recipient_id numeric(20) Not Null,
```

Foreign Key (Recipient\_id) references Recipient(Recipient\_id)  
);

CREATE table Bloodbanks(  
Bloodbank\_id numeric(20) Primary Key,  
Bloodbank\_name varchar(20) Not Null Unique,  
Zip\_code numeric(20) Not Null,  
Quantity\_available numeric(20)  
);

CREATE table Stocks(  
Stock\_id numeric(20) Primary Key Not Null,  
Blood\_group varchar(20) Not Null,  
Blood\_available numeric(20),  
status varchar(20),  
best\_before date Not Null,  
Bloodbank\_id numeric(20) Not Null,  
Foreign Key (Bloodbank\_id) references Bloodbanks(Bloodbank\_id)  
);

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

bbms

- Tables
  - bloodbanks
  - donor
  - recipient
- Views
- Stored Procedures
- Functions

imdb

jwailt

sys

Administration Schemas

Information

No object selected

SQL File 5 Insert Statements MySQL Implementation

Limit to 1000 rows

```
105 best_before date Not Null,  
106 Bloodbank_id numeric(20) Not Null,  
107 Foreign Key (Bloodbank_id) references Bloodbanks(Bloodbank_id)  
108 );  
109  
110 select * from Bloodbanks;  
111 select * from Stocks;
```

Result Grid

Stock_id	Blood_group	Blood_available	status	best_before	Bloodbank_id
0	AB+	0	Available	2012-09-25	41
4	B-	196	Not Available	1991-06-13	952
5	AB+	7222997	Available	2001-05-19	1
6	O+	7771	Not Available	1971-06-13	90
7	O-	592562	Available	1999-12-09	696743
9	O-	6369	Available	1970-12-19	51508372
59	AB-	0	Not Available	1976-07-25	4565846
63	B-	0	Not Available	1977-12-07	430261
76	O-	47075	Not Available	1980-08-02	750079
80	A+	126588477	Not Available	2006-10-13	15
85	A-	752	Not Available	2010-05-03	6
274	O+	17	Not Available	1985-08-22	7340

Stocks 4

Output

Action Output

#	Time	Action	Message	Duration / Fetch
20	18:44:58	INSERT INTO 'Blood' VALUES (0,'Negative','O';2015-09-03;56.28;(2,'Positive','B';1974-01-23;6841.17199);L...	50 row(s) affected Records: 50 Duplicates: 0 Warnings: 0	0.016 sec
21	18:45:21	CREATE table Analysis( Donation_id numeric(20) Primary Key, Quality varchar(20) Not Null, Haemoglobin_level...	0 row(s) affected	0.034 sec
22	18:45:29	INSERT INTO 'Analysis' VALUES (0,'Good';3.32;24.86;2.0;0;(1,'Good';2.64;60.41;69.6841;2166);(3,'Bad';14...	50 row(s) affected Records: 50 Duplicates: 0 Warnings: 0	0.046 sec
23	18:46:15	select * from Stocks LIMIT 0, 1000	50 row(s) returned	0.000 sec / 0.000 sec
24	18:46:38	select * from Payment LIMIT 0, 1000	50 row(s) returned	0.000 sec / 0.000 sec
25	18:48:23	select * from Stocks LIMIT 0, 1000	50 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

69°F Partly cloudy

ENG US 6:48 PM 11/5/2022

MySQL Workbench

Local instance MySQL80

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Information

No object selected

SQL File 5 Insert Statements MySQL Implementation

Limit to 1000 rows

```
104 status varchar(20),  
105 best_before date Not Null,  
106 Bloodbank_id numeric(20) Not Null,  
107 Foreign Key (Bloodbank_id) references Bloodbanks(Bloodbank_id)  
108 );  
109  
110 select * from Bloodbanks;
```

Result Grid

Bloodbank_id	Bloodbank_name	Zip_code	Quantity_available
0	Bogach-Gieson	91731	1595
1	Lindgren-Haley	80976	2
5	Walker, Kerlake and	91632	46
6	Tor, Bogan and Becke	15494	9489
15	Hettlinger LLC	37299	7375
39	Dibbert Inc	22863	60375944
41	Hegmann, Boyer and D	75113	49173
62	Hermann-Schimmel	85698	365738
81	Kessler, Dibbert and	44635	7065
90	Pagac, Orn and Rohan	36196	0
318	Schroeder-Veum	23922	597
439	Wuckert Group	32038	9

Bloodbanks 5

Output

Action Output

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21	18:45:21	CREATE table Analysis( Donation_id numeric(20) Primary Key, Quality varchar(20) Not Null, Haemoglobin_level...	0 row(s) affected	0.034 sec
22	18:45:29	INSERT INTO 'Analysis' VALUES (0,'Good';3.32;24.86;2.0;0;(1,'Good';2.64;60.41;69.6841;2166);(3,'Bad';14...	50 row(s) affected Records: 50 Duplicates: 0 Warnings: 0	0.046 sec
23	18:46:15	select * from Stocks LIMIT 0, 1000	50 row(s) returned	0.000 sec / 0.000 sec
24	18:46:38	select * from Payment LIMIT 0, 1000	50 row(s) returned	0.000 sec / 0.000 sec
25	18:48:23	select * from Stocks LIMIT 0, 1000	50 row(s) returned	0.000 sec / 0.000 sec
26	18:48:43	select * from Bloodbanks LIMIT 0, 1000	50 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

69°F Partly cloudy

ENG US 6:48 PM 11/5/2022