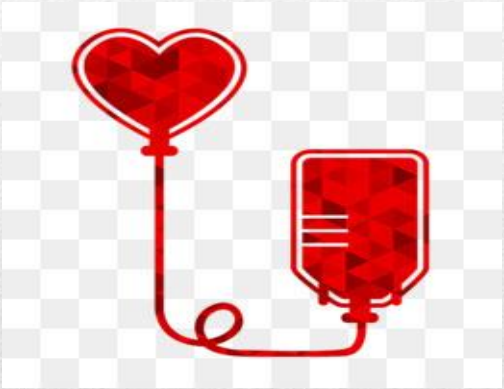
Central blood bank system



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Introduction

Blood transfusion safety remains an important public health concern in KSA.

The availability of blood products of all blood types and the provision of its safety ensure public trust of its excellent healthcare system. However, lack of availability of these blood products and provision of unsafe blood products still impact morbidity and mortality in the Sultanate. Through the use of online blood bank management system, blood transfusion safety is expected to be enhanced or improved. Risks on improper blood donors' documentation, and misplaced records can be minimized or totally avoided. Also, processes involving blood bag collection, storage, and inventory will be systematized and organized, hence, improving the healthcare management.

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Overview

Emergency situations, such as accidents, create an immediate and critical need for specific blood types. In addition, advances in medicine have also increased the need of blood for various treatments and surgeries. In short, blood is a saver of all existing lives. So in such emergency cases, it is difficult for hospital staff to collect blood in case of shortage of blood without having appropriate resources. Our system solves this problem. The main objective of the development of this application is to overcome the problems that exist in the current system.The blood drive system is intended to automate the blood bank activities such as finding donor, request for blood, initiating blood drive maintaining the details of all the blood groups that were available in the blood bank. This also helps the blood coordinators by providing information such as total number of samples available per each blood group, list of samples that belong to a particular blood group.

The blood drive system is being developed with a purpose of replacing all paper work done at during the process of donation. This will increase system performance, reliability and through put. This provides timely access to the samples. Simplifies the work makes the work easy under urgent needs of sample. The final result of this project is the development of database application.

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The project importance

- **Facilitating blood donation:**
- **Learn more about donor and recipient safety and the process of matching blood types.**
- **Learn about the different types of blood donation.**
- **in ksa. blood system is dependent on donations, and new donors for blood are always needed.**
- **To give blood, locate the blood center nearest you through.**

What we achieved?

the Application Central blood bank system increasing the performance and organization of the entire Hospitals and the health sector services by developing these sections:

1. **Direct email communication and Mobile Numbe.**
2. **Facilitating blood donation procedures.**
3. **Determination of blood groups and full information.**
4. **Connecting health sectors between them and exchanging blood information.**
5. **Accurate and observed data**

Advantages of achieved system

Software will facilitate to determine the easy way for donation blood to the nearest blood center.

A simple test to determine the possibility of donating .

Determining the nearest blood donation center .

Connect hospitals to each other and the blood bank to share information as well as blood .

Notifications for donors to urge them to donate through the app.

A notification about those in need of blood or its derivatives through the application, explaining the place of need and its blood group .

Emergency notifications for essential situations such as accidents and cardiac operations .

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Overview diagram

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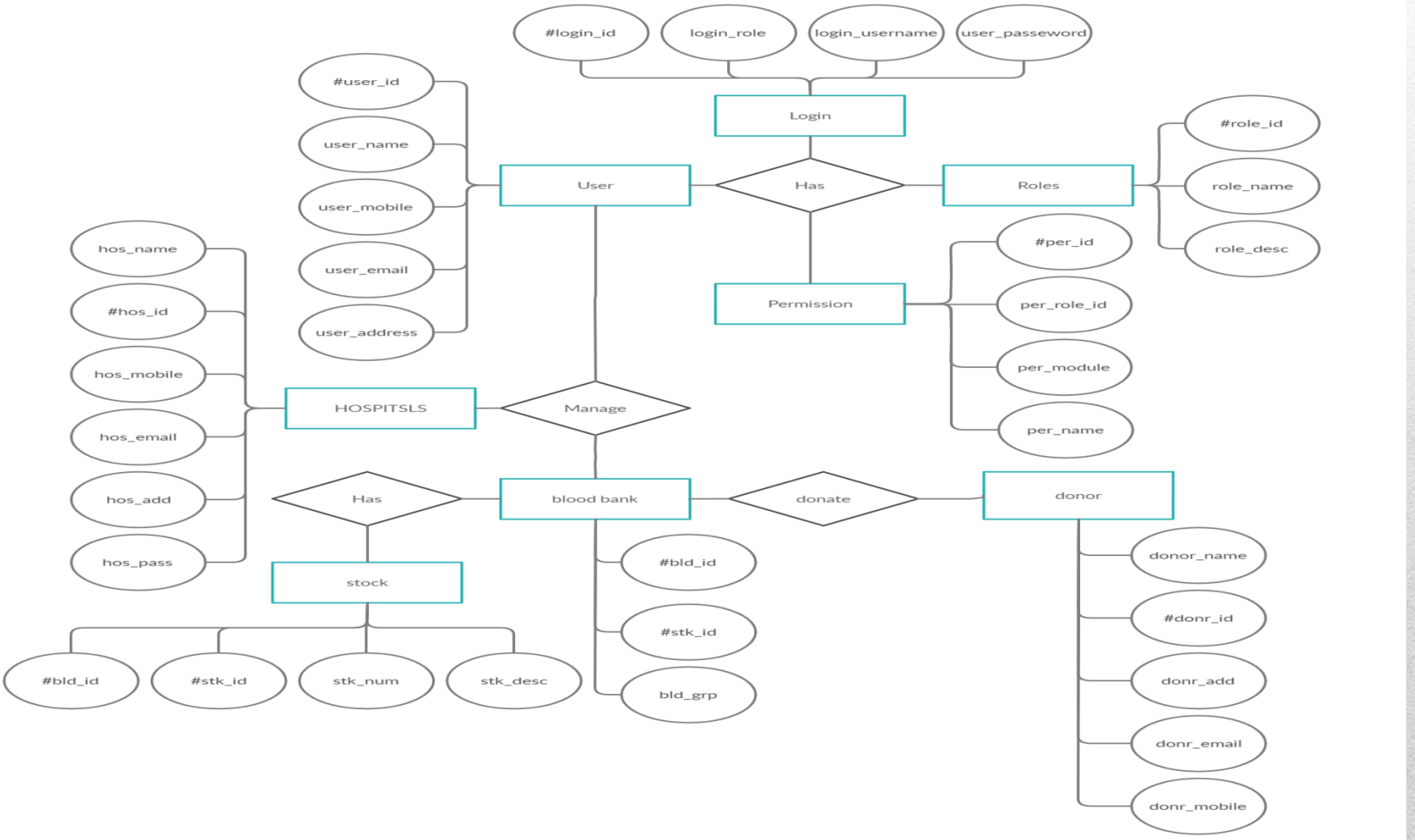
This diagram shows that blood bank systemsystem consists of two actors are Donor and hospital .

Each user, A blood donor, or hospital employee requests login action to enter the system and does their tasks as shown in

ER Digrams or ER Digrams-Database tables

ER Digrams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donor_name
#donr_id
donr_add
donr_email
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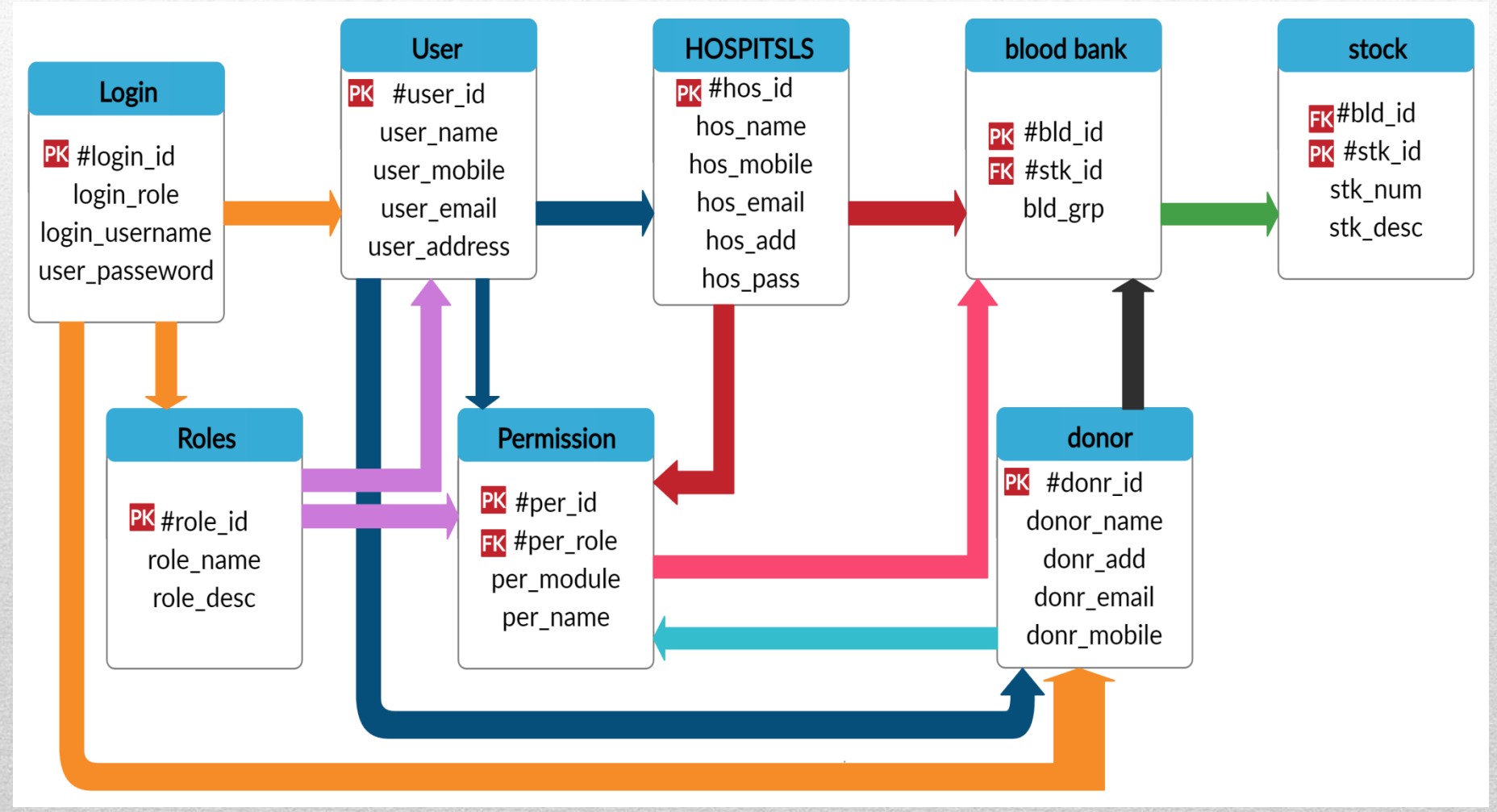
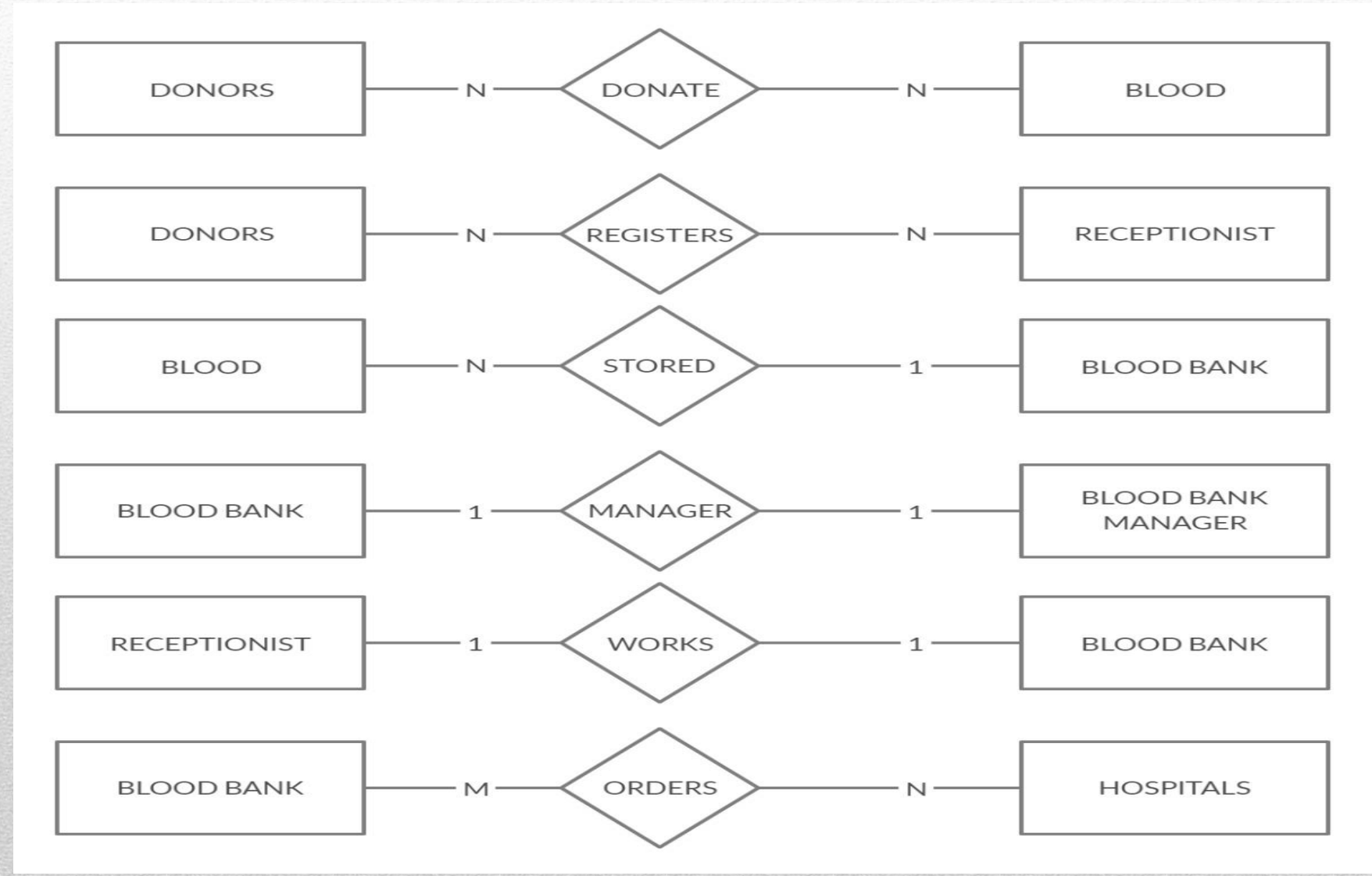
ER Digrams-Database tables



IDENTIFYING RELATIONSHIPS



Recommendations

1. build up the program and improve its performance and studying the conversion to Android application.
2. See more relevant studies and research.
3. Develop more sections needed the Central blood bank system such as performance assessment and Raising the level of services.