

# BONE MARROW TRANSPLANT

## INTRODUCTION

Welcome to our Bone Marrow Transplant - an innovative platform connecting donors and patients. Our user-friendly application facilitates seamless interactions, allowing donors to express their willingness to contribute and patients to connect with potential matches. Admins manage the network, overseeing enterprises, and ensuring compliance.

With a total of 9 roles, including donors, patients, and administrators, our system prioritizes eligibility and consent, guaranteeing the safety of all parties. The approval process ensures adherence to established protocols. The network comprises 5 enterprises and 7 organizations, contributing to a well-coordinated effort in promoting bone marrow donations.

Enterprise administrators play a crucial role in day-to-day operations, creating credentials and maintaining compliance. Our robust structure fosters effective collaboration, connecting patients with doctors within our network for timely treatments. This system, built on approval, availability, and diverse roles, aims to make a significant impact on lives through efficient bone marrow donations. Together, we strive to save lives and create a positive impact in the field of medical treatment.

### Enterprises Included:

1. Hospital
2. Bone Marrow Facility
3. Legal Establishment
4. Leukemia Curing center
5. Government Enterprise

### Organizations Included:

1. Hospital Organization
2. Leukemia Treatment Organization
3. Health Resource Administration
4. Bone Marrow Bank Organization
5. Legal Firm Organization
6. Laboratory Organization

## **ROLES:**

### **Admin**

- Manages networks
- Chooses a network
- Creates enterprises and credentials for each Enterprise Admin.

### **Donor**

- Registers to donate Bone Marrow to the Bone Marrow Bank.

### **Patient**

- Registers to seek Bone Marrow Donation and Cancer Treatment
- Signs consent for transplant and treatment.

### **Doctor**

- Performs treatment on the receiver patient.
- Conducts the Bone Marrow Transplant.

### **Hospital Coordinator**

- Assigns the donor to the respective Hospital.

### **Technician**

- Performs appropriate medical tests in the laboratory.
- Ensures the medical history of the donor and receiver coincides, verifying eligibility for a successful transplant.

### **Health Resource Service Officer**

- Receives work requests for Bone Marrow Donation.
- Checks eligibility of donor requests and approves or rejects accordingly.

### **Bone Marrow Facility Coordinator:**

- Receives work requests from patient consent for transplant.
- Checks inventory to verify HLA Type and Availability for the transplant procedure to progress.

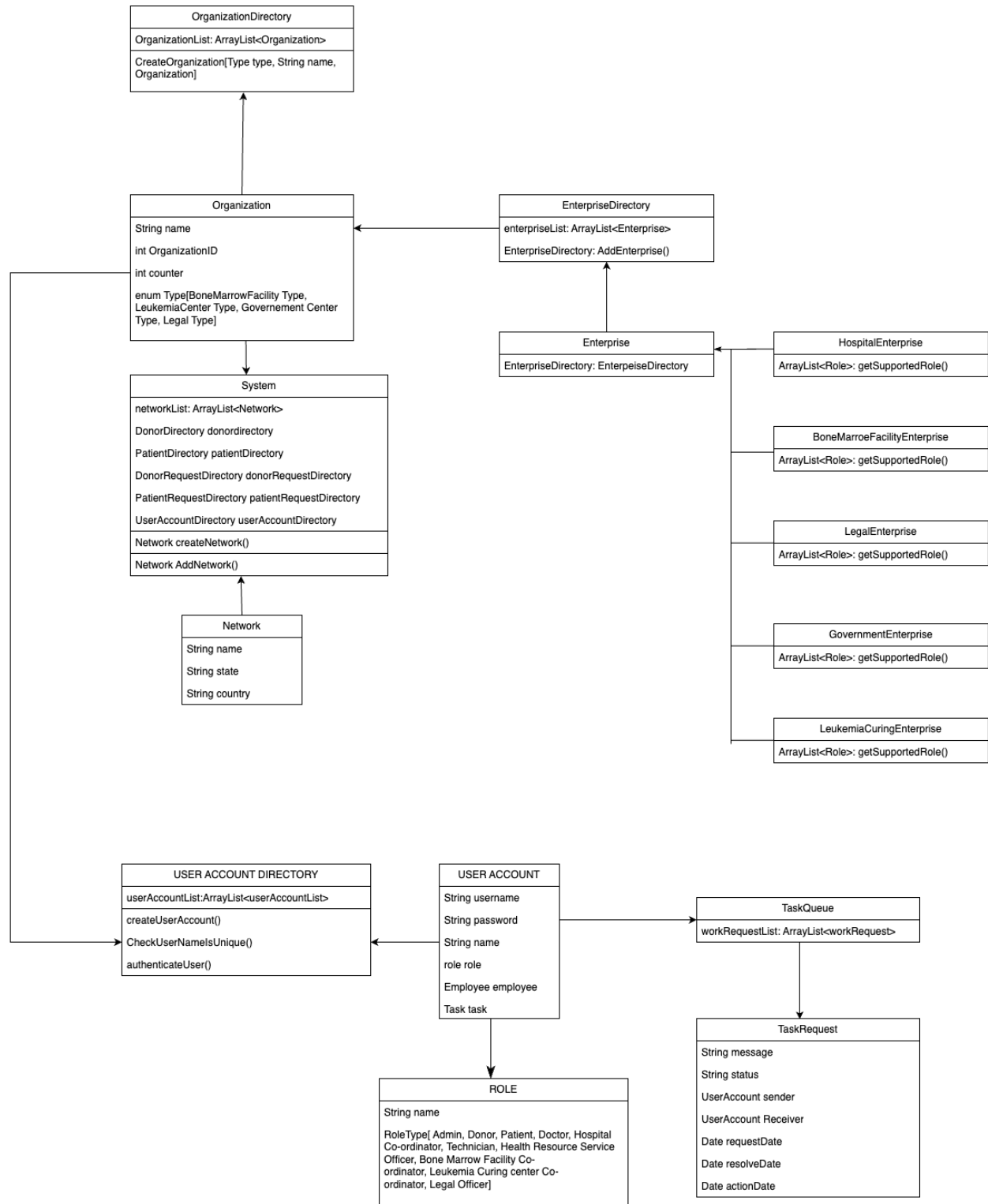
### **Leukemia Center Coordinator:**

- Receives work requests for curing Cancer.
- Checks eligibility for treatment based on the patient's diagnosis.

**Legal Officer:**

- Receives work requests for a transplant from the Leukemia Center Coordinator.
- Reviews the decision and decides to approve or reject it based on legal considerations.

## Class Diagram:



## Architecture Diagram:

