

Helpmap (Blood Donation Management System) is divided into two major components.

- Backend (API)
- Frontend (User Interface)

Backend

- ExpressJs is used as framework along with socket.io to make real time connections. MongoDB is used as primary database. API is developed to add donor, get list of near by donors, update donor details, delete donor details etc.
- Mongoose is used to make models. Mongoose is ODM for MongoDB. Every model is mapped with particular collection and every instance/object of particular model represents document of that respective collection.
- Compression package is used to generate gzipped response.
- body-parser is used to read request's body.
- express-validator is used to make custom validation functions.

Frontend

- ReactJs is used to make front-end components. jQuery is used to make ajax network requests. Bootstrap is used to have grid system and provide basic styling.

MongoDb

- MongoDB has only collection named donors. 2D location index is generated to make geolocation queries. This index is helpful to find locations(i.e documents in db) which are near to particular location(i.e latitude and longitude)