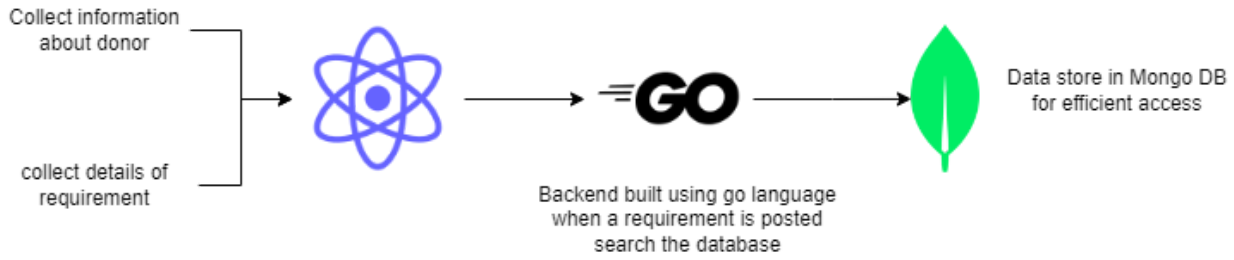
React-Go-Mongo Based web application



- The web application would enable donor to login and register the details which would be stored in a encrypted manner in the database
- The mongo database would allow us to query the posted request and an algorithm would be implemented in go lang which would output the nearest donor. Upon fetching the nearest donor a notification would be sent and the availability would be checked
- The notification would SMS based or whatsapp text based, upon reply from donor the contact information of donor would be shared to whoever posted the request
- The frontend built using react would collect the request details and send it to the backend which will be built using go lang
- Multiple instances of mongo db would be created providing better availability

Storing Data location based

- It would inefficient to query all the available donors for the request posted, in the database all the donor details would be stored based on location
- Upon getting a request in the backend the queries would be posted to the database which would fetch details within that particular location
- In case no donors are available in particular location queries in nearby location would be posted and the process happens recursively
- Fetching time would increase and multiple database calls should be made there are no donors nearby the posted location
- The amount of data transferred from the database would be significantly reduced

A general Quorum where donors would be able to accept a request

- In the previously proposed models multiple messages should be sent to check the availability of donors
- To prevent this a subscriber based model would allow the users to prioritize the requests relevant to the donor
- A donor would be able to accept the request which would be sent as push notifications which would be triggered as soon as a request is posted.
- The subscription model should be implemented which would require the server to send data instead of the usual request response model.
- This could be implemented using electron js nodes js based backend development application.
- There is no need to store the information of donor , instead the interested community could log in to the website
- Managing multiple subscribers would require high end performance optimized systems