



Project: Blood Bridge

DS204 - Graphs and Social Networks






























Problem Statement:

- Connect blood donors with those in need.
- Donors can't donate blood directly to any receiver.
- Add Hospitals and Blood Banks in the Network.
- Match donors such that everyone get the blood.
- Suggest a donation centre which is optimal for both the donor and the receiver.

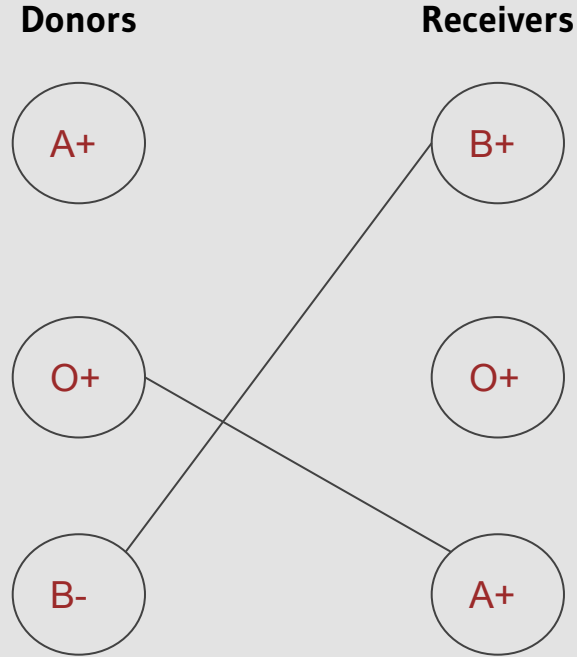


RECIPIENT

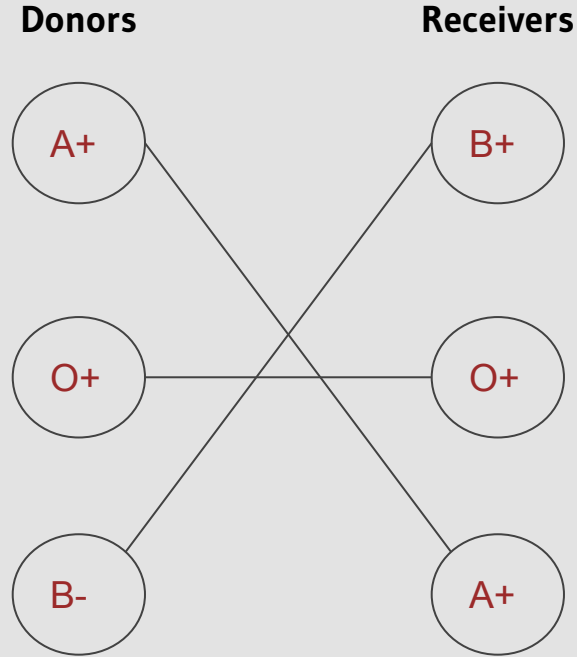
DONOR

	O-	O+	A-	A+	B-	B+	AB-	AB+
AB+								
AB-								
B+								
B-								
A+								
A-								
O+								
O-								

Maximal Matching Problem



Maximal Matching Problem



Data Collection:

- **Hospital List:** Department of Personnel and Administrative Reforms
- **Blood Bank List:** Central Drugs Standard Control Organization
- **Users:** IIIT Dharwad

to 2019batch, 2020batch, 2021batch ▼

Hello everyone!

We are currently working on a project related to blood banks for the course **Graphs** and **Social Networks** and would appreciate it if you could take a moment to enter your blood group into this Google form.

Form: <https://forms.gle/qdJ8SgTtF6Ymy4pJ8>

Note: Your email address will not be collected during the process, so your data will remain anonymous.

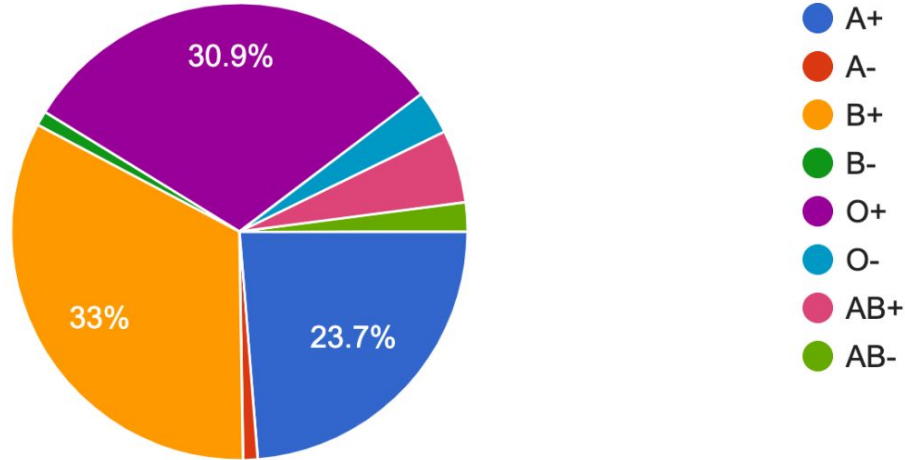
Thank you so much for your time!



Data Collection:

Blood Group

97 responses



Data Collection:

Selected Cities

- Dharwad
- Hubli
- Bagalkot
- Belagavi
- Gadag
- Haveri
- Uttar Kannada Sirsi
- Karwar
- Ankola
- Koppal
- Mudhol

User Locations

- Police Stations

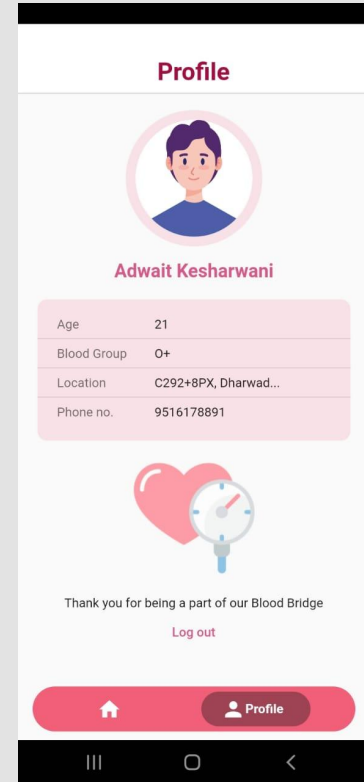
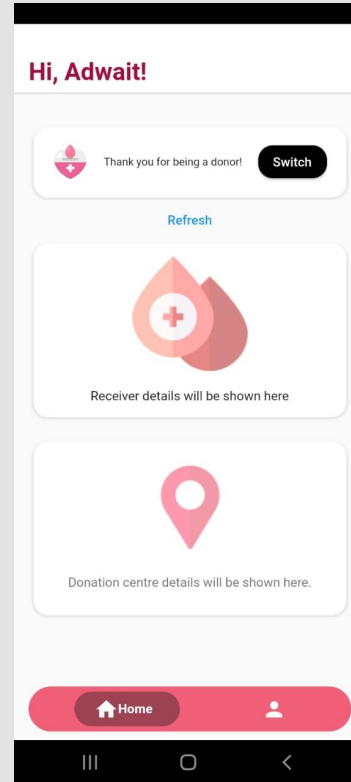
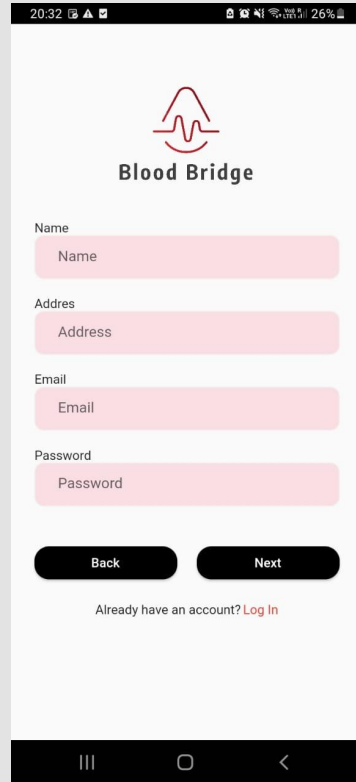
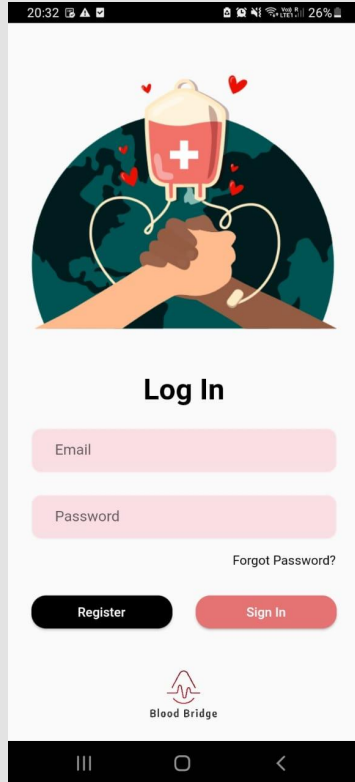
Distance Calculation

- Google Map API

Graph Visualisation

Algorithms

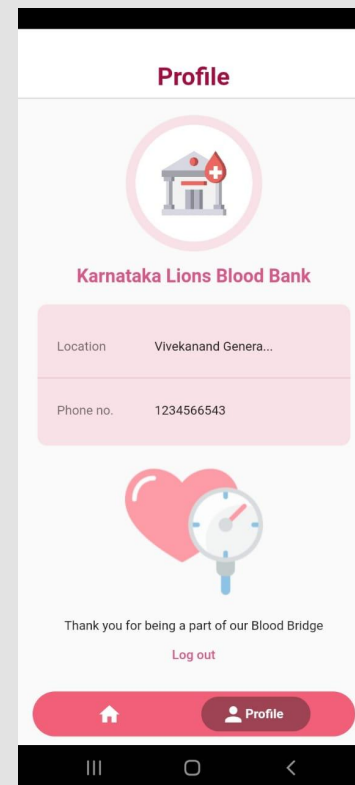
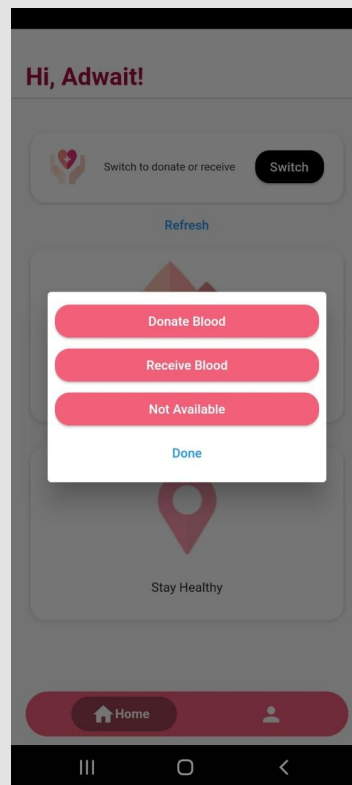
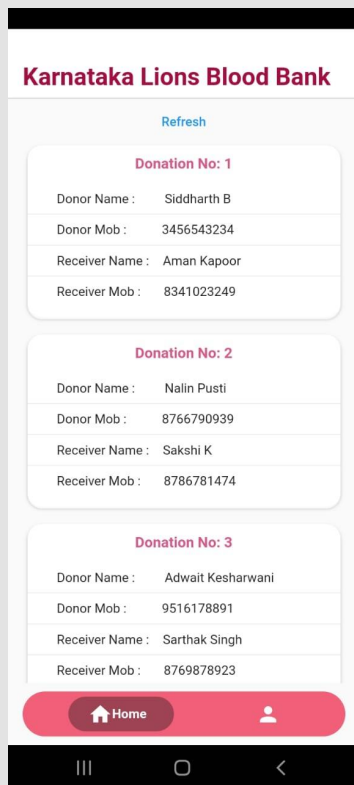
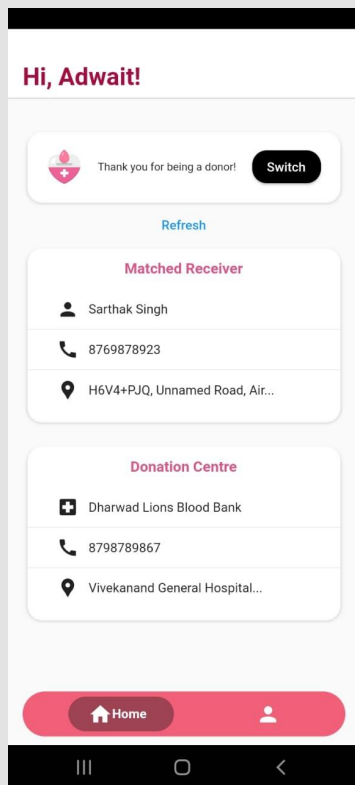
Mobile Application





Blood Bridge

Mobile Application



It's demonstration time!



Blood Bridge

THANKS!

Do you have any questions?

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