Login Page

Database

Registers

User

Notify User

Set allowTrack to ‘N’ in UserProfile table

Yes

No

Remove friend

Notify User

Start sending friends latitude, longitude info to the user

Yes

No

Update friendList table

Check if allowtrack is set to ‘N’ in UserProfile table

Track friend

Notify User

Request Accepted?

Send Request to the friend

Receive requests from user

Add Friend

Valid

Invalid

Validate with DB

Enter Email , password combination

Update latitude and longitude in UserPorfile of respective users

Start receiving latitude and longitude from different users

Fig: Block diagram of GPS Tracker

Update the friendList table

Tables Used:

USERPROFILE

Fields:

1. UserId Varchar(20) Primary Key
2. Username Varchar(50) Unique
3. Email Varchar(255) Unique
4. Password Varchar(255) Unique ,Not Null
5. Address Varchar(50)
6. allowTrack Varchar(1) Not Null (‘Y’ or ‘N’, default ‘Y’)
7. latitude Double
8. longitude Double

FRIENDLIST

Fields:

1. UserId Varchar(20) Foreign key
2. FriendId Varchar(30) Unique
3. FriendName Varchar(50) Unique