# Design Summary

Team name: PISA

App name: Lighte

Platforms Targeted: The development platform and database used are Android Studio and Microsoft Azure respectively.

Tools used: Speech to text conversion, text to speech conversion and video chat.

Link for video demonstration: https://onedrive.live.com/redir?resid=8E4337C6558B3D4E!105&authkey=!AD7uvyoHBg22Sy8&ithint=video%2cmp4
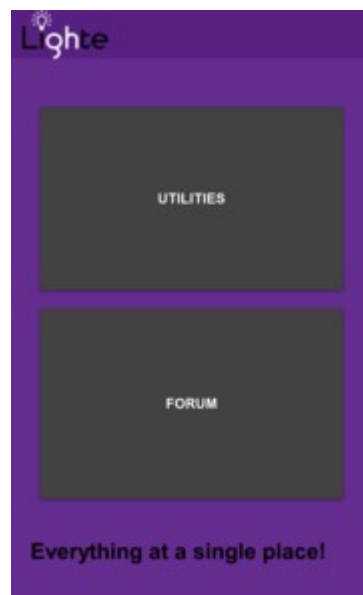
# Summary Of Idea

The application 'Lighte' is for visually impaired people. It is a forum where blind people can communicate with each other and with a few organizations which will be volunteering to help.
We feel this is an innovative idea because of its uniqueness and eccentricity. It aims to help the visually challenged to progress, which in turn paves the way for cumulative advancement of every section of society. The commercial apps available these days aim at entertainment, management systems, discussion forums but through this competition, we aim to contribute a little to society by putting technology to good use and developing an app for aiding the unprivileged.
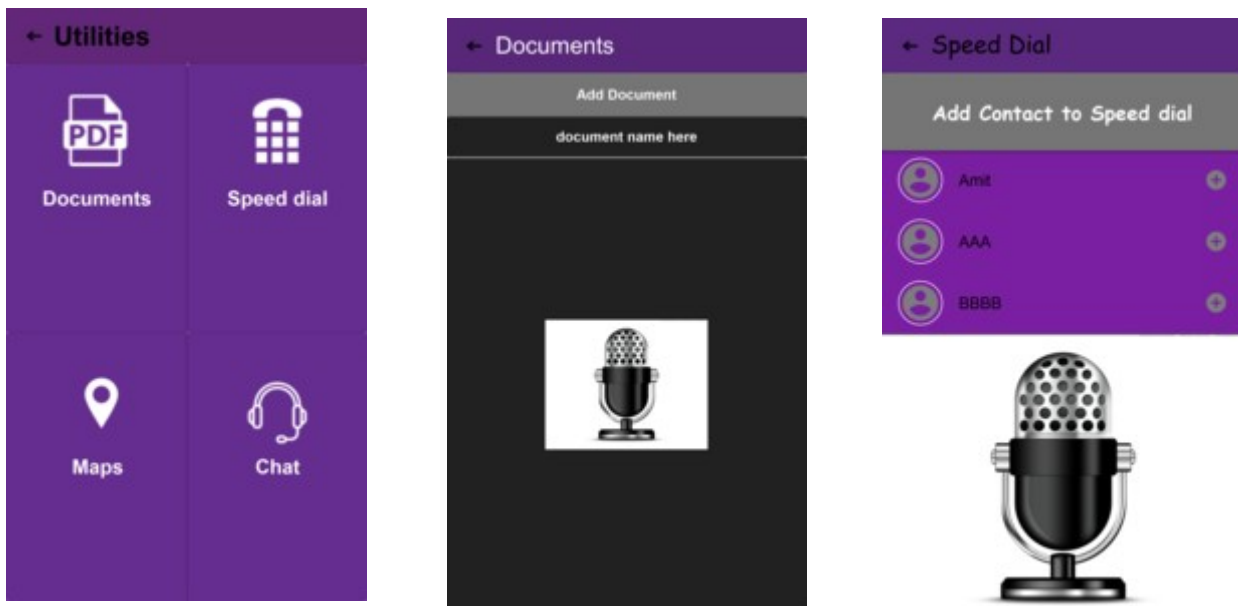
The workflow of the app is explained as below :

When we start the app, there are 2 buttons (Utilities and Forum).



&lt;1&gt; Utilities : This button will lead to a page which includes the following 4 features. Each of these buttons will cover a quarter of the screen space, so that it is easy for the blind user to click on the

desired button. The GUI has been carefully crafted, in order to make it more convenient for the blind user to navigate.
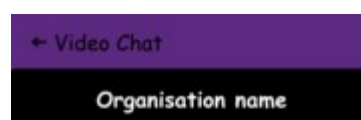


<1.1> Documents : When the user clicks on this button, he can tell out the name of any document which he wants to be displayed on the screen. Documents like Aadhar Card, PAN card and so on will be already fed into the database. So when he says the name of a document, that speech will get converted to text, and that document will appear on screen.

<1.2> Speed Dial : The user can say out the name of a person in his contacts who he wants to call, and will automatically get connected.
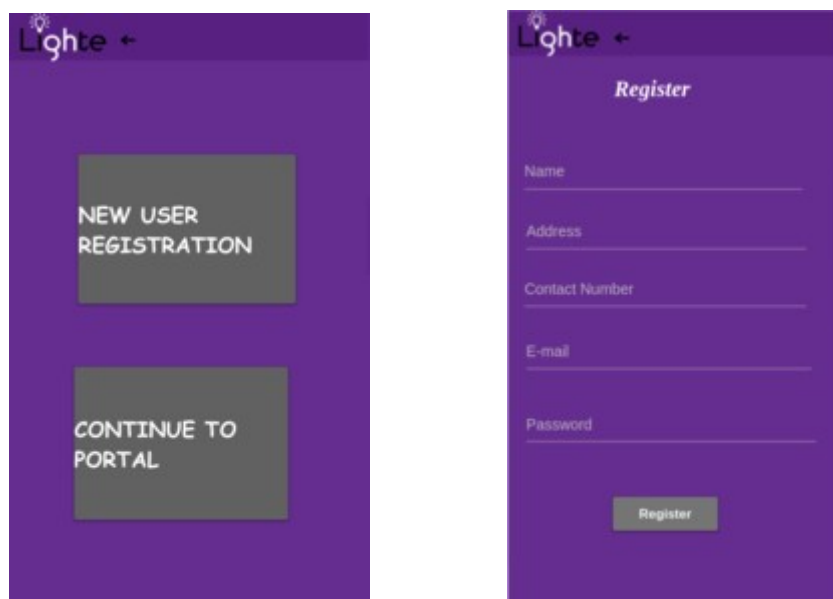
<1.3> Maps : In case the user wants directions to a particular location, then he can just click and say the name of the place where he wants to go, and directions will be given to him via audio. His current location will be automatically tracked.

<1.4> Live video Assisstance : The user can voice out the name of an organization in need of help, and a live video assisstance with that organization will be established.

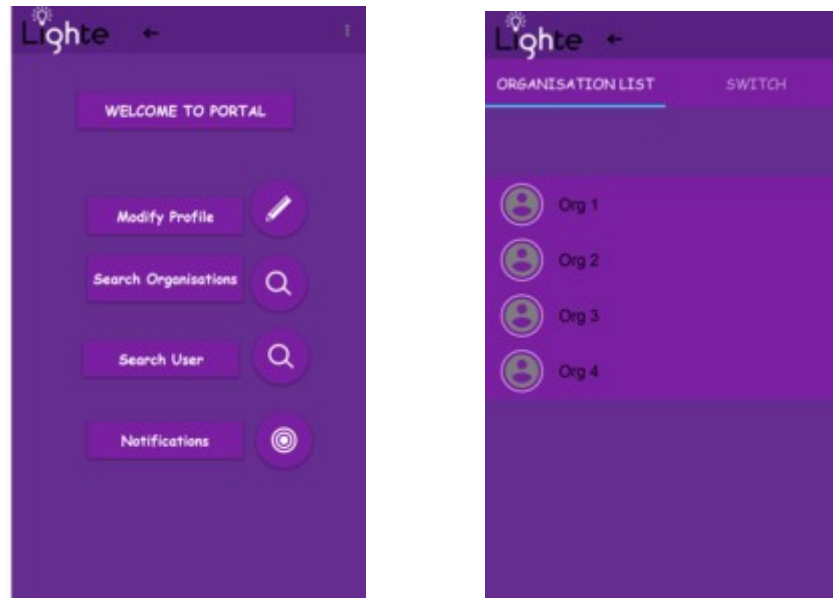<2> Forum : This button will lead to a page which has the following 2 buttons.



<2.1> New User/Organization Registration : A visually impaired user or an organization can register here, by entering their details and it will get stored in the database. As soon as they register, they get logged into their account.
Organizations can volunteer to help the blind. Some organizations might provide 2 or more different types of help, and for each type of help, they might want to maintain a separate account. So they can also switch between these accounts. Now

when a new organization is registering itself with the app, then it will mention its details like the name of the organization, the kind of help it provides, its available timings, its contact number and so on.



      <2.2> Continue to Portal : Once the user/organization is logged in, they can click here. This button will lead to a page which has the following 4 buttons.

        <2.2.1> Search User : This feature allows a user to search for another user by voicing out his name, and it will be searched for in the database. Once it is found, the details of the user will be said out to the current user.

        <2.2.2> Search Organization : This feature leads to a page which has 2 buttons.

          <2.2.2.1> Ask help from an Organization : Here, the list of organizations will be displayed, and their details will be voiced out to the user. He can then take help from an organization.

          <2.2.2.2> Switch to an Organization : Here, a logged in organization can switch to another account. One organization
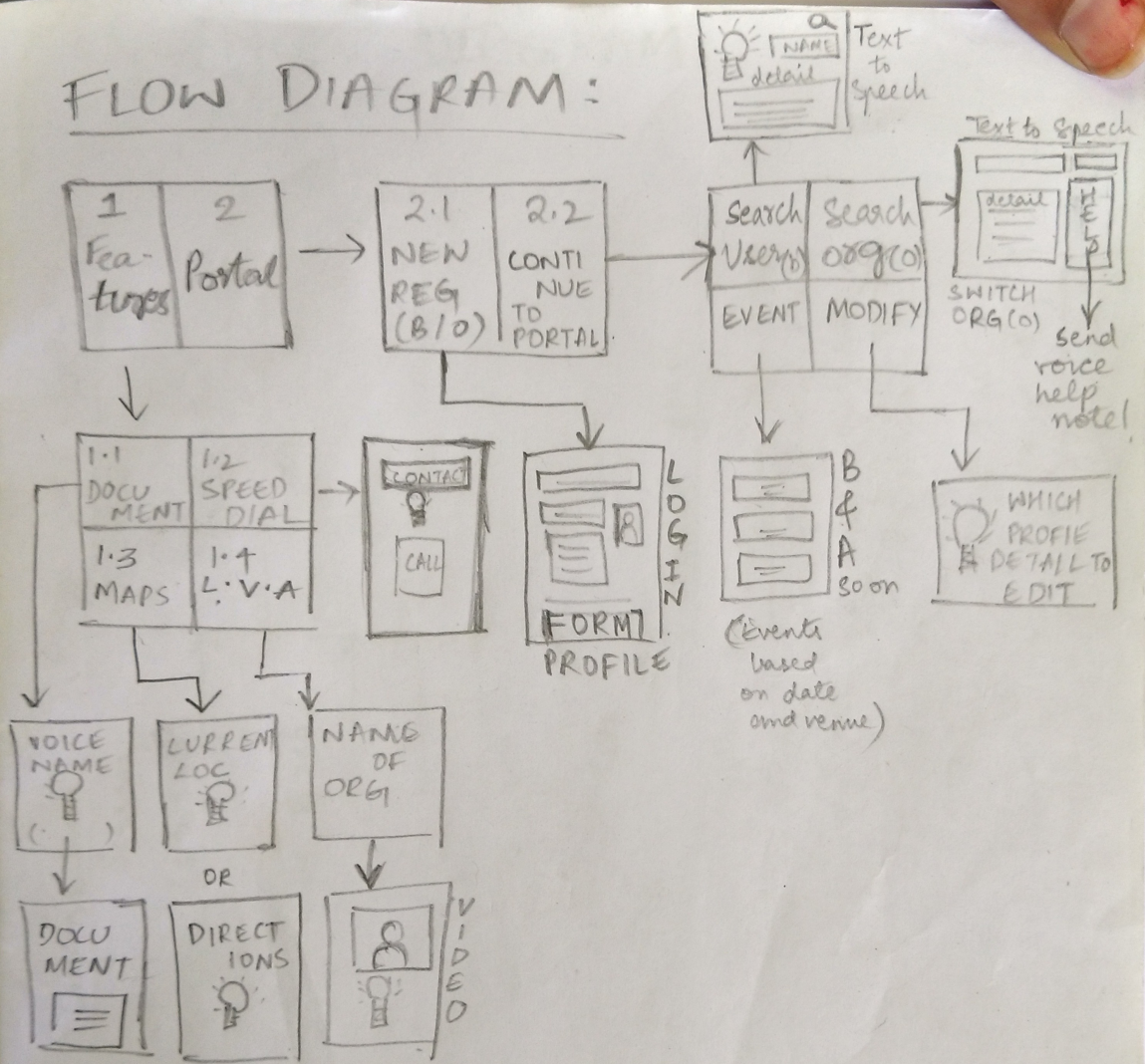
might have multiple accounts, like one for job services, one for medical assisstance and so on. So they can switch between these accounts as per the need.

<2.2.3> Events Notification : This feature is mainly to help the blind people to socialize among themselves and get acquainted with each other. When a blind user registers, he will mention his address too. So we will identify all the people staying in the same locality, and if there are any events/functions/celebrations being held there and one blind person from that locality knows about it, then he can voice it out here, and this voice message will be sent as a notification to all the other users in the same locality. We will also notify the users on others' birthdays. This is the basic thing that the events notification part will do.

<2.2.4> Modify Profile : The user or organization can make changes to any details entered in their profile.
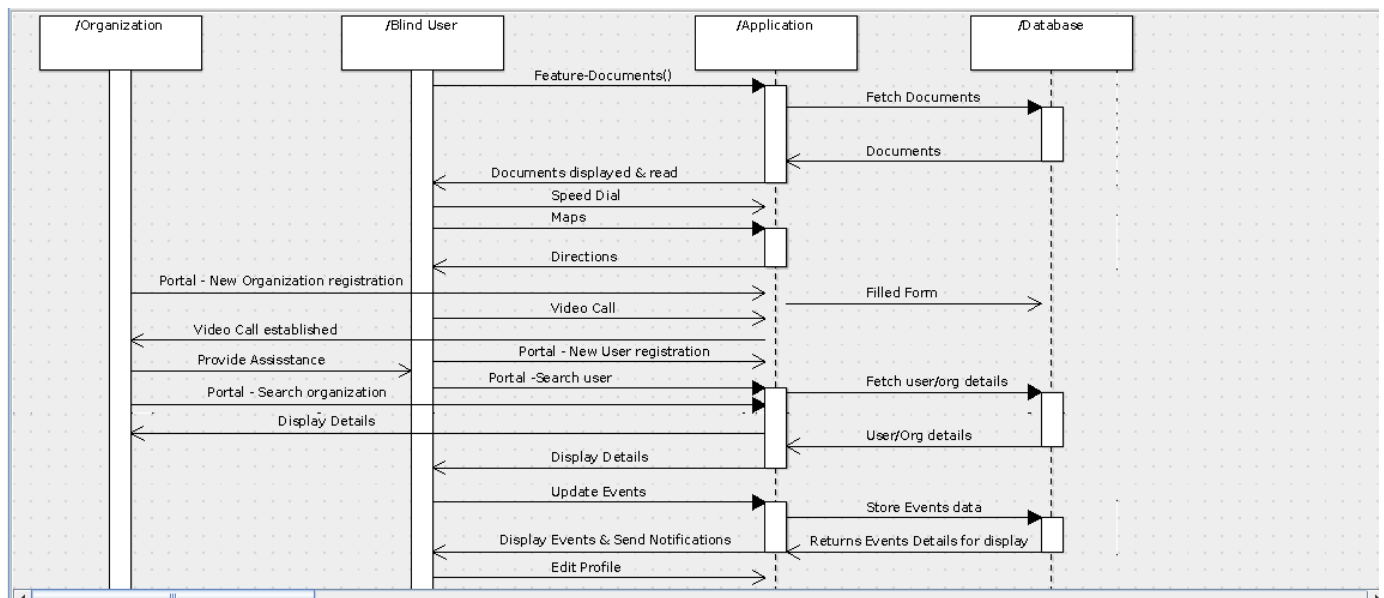
This is the summary of the design of 'Lighte'.

Flow diagram of the application

Sequence diagram