Chapter 1

INTRODUCTION

One of the major aspects which catalyze the death rate in the world population is alcohol consumption. More than 30 Lakhs of world population death are occurring due to this factor [1]. Considering the Indian community major consumption without proper knowledge transpires in rural areas. Circumstances were maybe different for the people of the urban population considering literacy, wealth, knowledge and other determinants. But the complication differs in rural areas where even when an alcoholic is completely addicted and tormenting family members due to intoxication, the wives or elders are helpless due to their literacy fragile health conditions and incognizance of de-addiction centers.

These de-addiction centers as act as a catalyst to the needy people as such as mentioned above. There are over 300+ de-addiction centers [2] across India, that transpire to bring change in our community but still there exist a line that sometimes doesn't connect with needy people. Thus, the system is required to connect that line.

To elude Inevitability of these commodities rural community needs helping hands. Thus, and so the system needs to be provided in such a way that complexity should deduct and also provide essential services of de-addiction centers with ease. As the communities are well aware of local languages it becomes a prerequisite for the system to have regional languages which makes it uncomplicated for any person who is well aware of at least one language.

One more characteristic is once the alcoholic turns sober, he may again have relapsed and that timing is unavoidable. They may lack in motivation to continue sobering. So, they need a platform that furnishes them not to have relapsed and transpires them to stay motivated. As for the case like above where the ease of the system is essential, it becomes even greatly so here considering fondness for the alcohol may be uncertain.

The system should be in such a way that it stimulates both the ease at which needy people gets connected to de-addiction centers and keeping them motivated to remain sober. The system may be an android app.

The system should have the feasibility of having language options where the system should provide 4-5 languages. And clicking upon which user should be navigated to next frame where

the option of contacting nearby de-addiction center should be provided based upon their zone, motivation factors such as Bhajans, audios of speakers, Atmavalokana talks, prayer talks and some other elements should be provided and one more option is keeping track of soberly and other health-related options to keep them motivated.

1.1 Motivation

Many have witnessed individuals getting impoverished over period of time predominantly in rural areas due to alcoholism. Limitations are such that even if they want to ameliorate its awfully difficult. Considering the situation around where unlettered won't be considerate with respect to cons of alcoholic consumption or rate of it.

Elders and wives of these individuals are unsophisticated and insurmountable that it makes it difficult for them to even seek for aid. Considering the literacy in terms of non-regional languages around its really hard to seek for help.

1.2 Literature Review

1. Sober Peers:

This application was developed in California, USA and was launched on May 2020 with a size of 194 MB. It has gained a rating of 4.6/5 on play store

Application includes triggers feature where tracking of users using geo location technology is implemented but user need to enter triggering location manually, second feature being a more of social media platform for sobers to keep them motivated. Dashboard includes profile manipulation, groups (more of counselling), story such as Instagram reels. Features like chats where you can have conversation with nearby sober. Final feature includes options for rest of features in it along with individual to-do-list.

2. Sobriety Tracker

This application was developed in Mumbai, India and was launched on February 2020 with a size of 8.6 MB. It has gained a rating of 4.6/5 on play store.

Sobriety is first feature which asks user to enter addiction manually. Correspondingly second feature works which is progress bar which on click start ticking the time. Similarly third feature gets you rewards accordingly. Motivation tab includes News feeds as feature to

keep the mind diverted. Last it includes feature which is combination of all features along with personalised to-do-list.

3. Quit Drinking

This application was developed in Switzerland, Netherland and was launched on September 2020 with a size of 6.3 MB. It has gained a rating of 4.5/5 on play store.

This app has a feature to note down our urges in a customised diary built inside the application. It is useful in maintaining health related statistics such as blood alcohol, cell regeneration, withdrawal symptoms, physical health, neurons, white matter, intellectual functions, mental health, weight loss, physical fitness, liver health, heart disease, stroke death and cancer. There's a weekly progress bar, and shows below some statistical analysis such as time of me being sober and a return gift of being sober it shows how much wealth and health I have regained can could have been lost if I was drinking. It gives trophies on the calculation of time of individual being sober.

4. I am Sober

This application was developed in Terrace, WA and was launched on August 2021 with a size of 34 MB. It has gained a rating of 4.8/5 on play store.

A very nice and clean interface for timer showing days, hours, minutes, and seconds of person being sober and it has some extra features through which we can keep a track on savings of the person made by not consuming alcohol. The calendar tab helps to keep a note of the streaks. The pledges feature gives motivational quote on daily basis. We can also keep our personalised notes to maintain the pledge taken to stay motivated towards being sober. In the community feature we can post pictures, comment on others posts and even send messages withing the group which is created based on the number of users using this application parallelly. In the support tab we can share our status to the centre or can offer our services as a counsellor.

5. Sober Time

This application was developed in Tbilisi, Georgia and was launched on January 2015 with a size of 19 MB. It has gained a rating of 4.7/5 on play store.

In the home page there is a timer in the format of YY-MM-DD and the time is given in the format of HH-MM-SS. In the next feature named milestone we have milestones like five minutes, an hour, one day, one week and so on to a highest possible time of five years. There is also a customisable personal milestone setter to maintain a track of your own milestones achieved. It displays statistics of timeline starting since being sober, it has a savings tab next to it which displays the savings made by the user. Calendar feature keeps a daily track of how your day was and displays statistical data based on it. Community tab is made for interaction between sobers and unite them under a single application giving them the leverage to post pictures of their own and like comment on others posts. It even allows you to keep stories such as Instagram and even allows short posts similar to twitter.

6. The Alcohol Experiment

This application was developed by Uplift and was launched on January 2021 with a size of 80 MB. It has gained a rating of 4.8/5 on play store.

It allows sobers to use a social media type interface similar to Facebook where we can react to the posts comment on those posts. It collects feedback from the sober and stores it locally. It displays videos on a experiment feature as a 30 days experiment to quit drinking. It allows to communicate through the app with sobers nearby. It gives notification alerts to the user in the form of pop-up. It gives a platform to edit our own profile at our own will. It includes settings where it has specific options such as blocked users, TC, privacy policy and logout of the app when required.

1.3 Problem Statement

Develop an android application for calculation of the risk level in type of alcohol consumed on daily basis, providing a way to contact de-addiction centers for individuals and to assist sobers in avoiding relapse.

breif description of separately scope and constraints, with bullets.

1.4 Objectives

- To determine the risk factor based on the amount of alcohol consumed
- To direct users to their district's helpline number for admission or to avoid relapse
- To provide assets to avoid relapse for sober and their concerned families

Chapter 2

REQUIREMENT ANALYSIS

The application has its own specific requirements. The requirements of the function of the developed for android application for it. The following are the requirements for Android applications

2.1 Functional Requirements

Functional requirements are to be provided by the application. The functional requirements for the applications:

- User shall able to simulate the mobile application
- User can create the account by signup
- User shall able to interact with mobile application
- Admin shall be able to add new post
- Admin shall be able to update the existing models
- Admin shall be able to edit or delete the user

2.2 Non Functional Requirements

Non fuctional requirements which the applications must perform. The Non functional requirements for the applications:

- This system is user-friendly.
- The details are secure.
- The Admin can use the system and make the necessary changes.
- It is accessible to all the users
- This project is reliable and can be easily maintained.
- The system should be able to run on a OS 8 versions of android above

2.3 Hardware Requirements

- Android based phone
- CPU (Snapdragon, Mediatek, Kirin, etc)
- A minimum of 4 GB of Ram
- A minimum of 32 GB of ROM

2.4 Software Requirements

- Operating System: Android 8.0 (Oreo OS) and above
- Programming Language: Java
- Tools: Android Studio
- Android Studio – for building the base application
- Color pallet for custom color correction
- Abode XD for placements and correction of positions for the elements made

Chapter 3

SYSTEM DESIGN

This chapter discuss the system design of android application. The architecture design and system design have been explained.

3.1 Architectural System Design

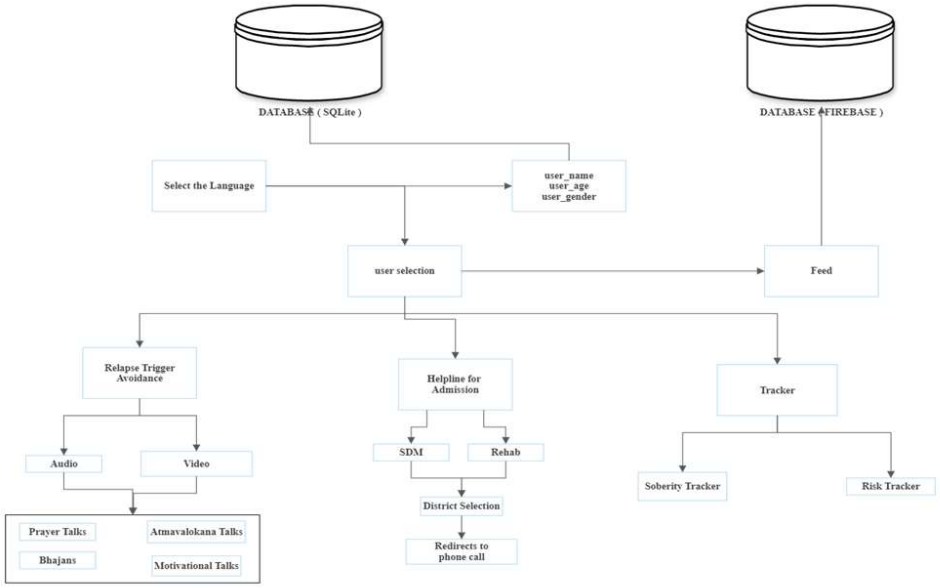

Fig 3.1

Architectural Framework

In this system [fig 3.1], the User can select the language of their choice, after selecting get the options i.e Relapse trigger avoidance, Helpline for admission, Sobriety tracker and Risk Calculator.

If the user selects the Relapse trigger avoidance option, a user gets audio and video clips of Atmavalokana talks, Bhajans, Motivational talks and Prayer talks.

If the User select Helpline for admission option, a user gets SDM and Rehabs to call and speak to the community to help him to be sober.

If the user selects the Sobriety tracker option, the user comes to know how much time the user has been sober and gets the records.

If the user selects the Risk calculator option, the user can check the status of average alcohol consumption according to category and name of alcohol and calculate the risk of alcohol, showing the message as low, medium, high and very high risk.

In database we used sqlite to store the user name, average calculator of alcohol consumption of the users, tracking the sober time of users.

Chapter 4

IMPLEMENTATION

This chapter gives a brief description about implementation details of the system by describing each components.

4.1 Risk Tracker

It shows the details of User of consumption of alcohol and calculate average of consumption of alcohol and calculate the consumption of alcohol as per gender shown in fig 4.1 and 4.2.

4.2 Sobriety Tracker

It shows the details of how much time the user has been sober in days, minutes and seconds and display the sober time as shown in fig 4.3.

4.3 Helpline for Admission

It shows the details of contact numbers of communities particular districts and users can contact which belong to particular district in certain time of availability as shown in fig 4.4

4.4 Relapse Triggers Avoidance for audio

It shows the details of Audio clips to user and user can listen to audio's of Bhajan's, Motivational, Atmavolokalana talks to avoid the relapse of consumption of alcohols shown in fig 4.5

4.5 Relapse Triggers Avoidance for Video

It shows the details of Youtube Videos clips to user and user can listen to Video's of Bhajan's, Motivational, Atmavolokalana talks to avoid the relapse of consumption of alcohols shown in fig 4.6

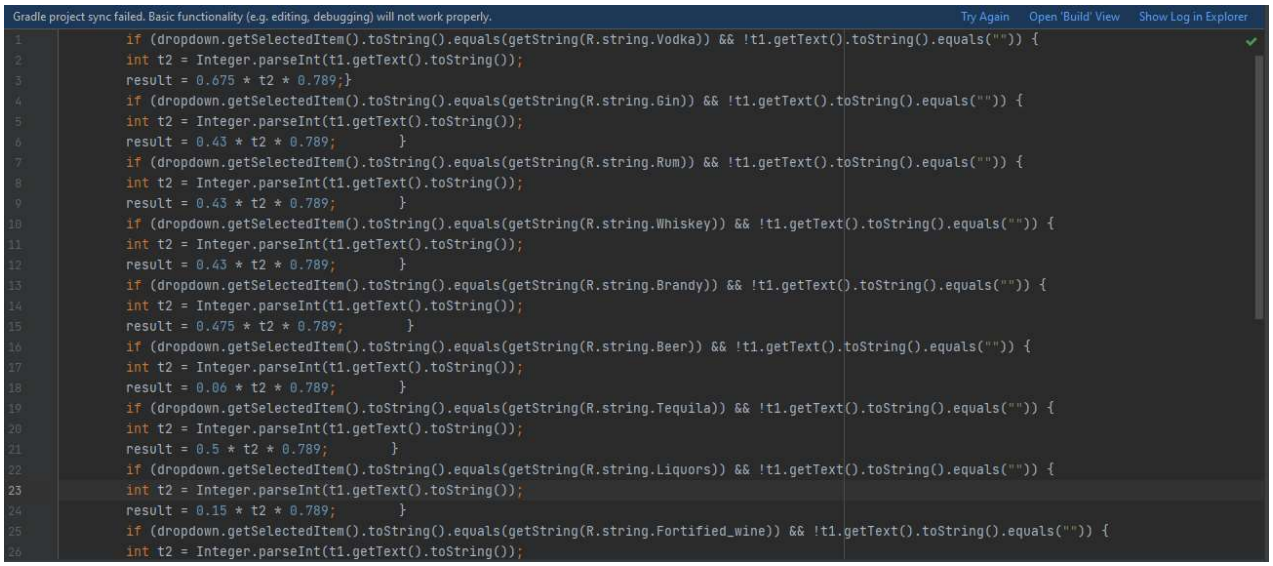

Figure 4.1 Risk Tracker

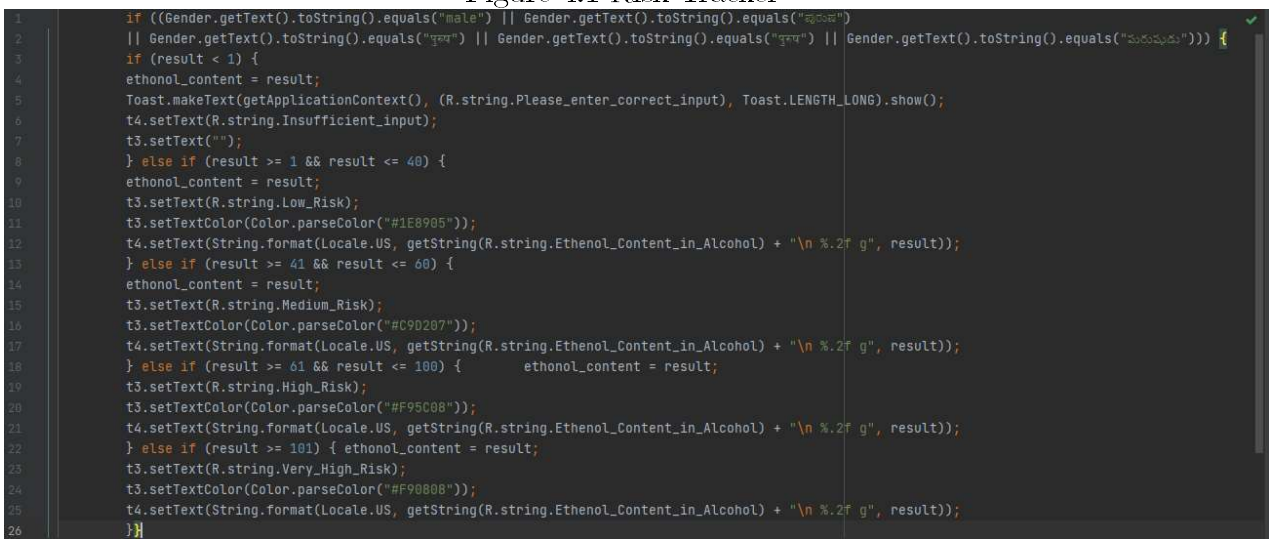

Figure 4.2 Risk Tracker for Gender

4.6 FEEDS

It shows the details of FEEDS liked Image or Text and post it in feeds. Only Admin can post the feeds as shown in fig 4.6

```
        //void setTime()  set timer
        if (view == btn1 ) {
        // Get Current Date
        systime = System.currentTimeMillis() / 1000;
        editor = sh.edit();
        editor.putLong("systemtime", systime);
        editor.commit();
        //String time1  = systime.toString();
        Context context = getApplicationContext();
        CharSequence text = "Timer is Set";
        int duration = Toast.LENGTH_SHORT;
        Toast toast = Toast.makeText(context, text, duration);
        toast.show(); tview.setText(""); t1view.setText("");}   if (view == btn2) // Get Current Time and for reset
        {systime = sh.getLong("systemtime", systime);
        if( systime == 0L)        {
        tview.setText(getString(R.string.You_have_not_set_timer_yet));
        t1view.setText("");        }else {
        curtime = System.currentTimeMillis() / 1000;
        calculate_time(systime, curtime);
        systime = 0L;
        editor = sh.edit();
        editor.putLong("systemtime", systime);
        editor.commit();   }        }  if(view == btn3){
        systime = sh.getLong("systemtime", systime);
        Long c_time = System.currentTimeMillis()/1000;
        get_time(systime,c_time);}}
```

Figure 4.1: 4.3 Sobriety Tracker

```
buttonCall2.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View view) {
        if (Build.VERSION.SDK_INT>=Build.VERSION_CODES.M){
        if(checkSelfPermission(Manifest.permission.CALL_PHONE) == PackageManager.PERMISSION_GRANTED){

        Long number = Long.valueOf(contact2);
        Intent intent = new Intent(Intent.ACTION_CALL);
        intent.setData(Uri.parse("tel:"+number));
        startActivity(intent);
        }else {
        requestPermissions(new String[]{Manifest.permission.CALL_PHONE},1);
        }
        }
        }
        });
```

Figure 4.4 Helpline for Admission

```
public void onItemClick(AdapterView<?> parent, View view, int i, long l) {
        loadTracks();
        TrackModel track = trackList[i];
        if(mediaPlayer !=null){
        if(mediaPlayer.isPlaying()){
        mediaPlayer.stop();
        mediaPlayer.reset();
        track.setPlaying(false);
        }
        }
        try {
        mediaPlayer = MediaPlayer.create(com.example.myapp.AudioAtmavalokanaActivity.this,track.getId());
        if (mediaPlayer.isPlaying()){
        mediaPlayer.stop();
        mediaPlayer.reset();
        track.setPlaying(false);
        }
        else {
        mediaPlayer.start();
        track.setPlaying(true);
        }
        }
        catch (Exception e){
        Log.e("Exception", e.getMessage());
        }
        }
```

Figure 4.5 Relapse Triggers Avoidance

```
Intent intent;
        String videoId;
        YouTubePlayerView youTubePlayerView;
@Override
protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main3);
        intent = getIntent();
        videoId =  intent.getStringExtra("videoid");
        youTubePlayerView = findViewById(R.id.player);
        youTubePlayerView.initialize("AIzaSyDp1flgpvIUosNiuZfMfvujPgrrCVHxLRk",this);
        }

@Override
public void onInitializationSuccess(YouTubePlayer.Provider provider, YouTubePlayer youTubePlayer, boolean b) {
        youTubePlayer.setPlayerStateChangeListener(this);
        youTubePlayer.setPlaybackEventListener(this);

        if(!b){
        youTubePlayer.cueVideo(videoId);
        }
        }
```

Figure 4.5 Relapse Triggers Avoidance Video

```
private void getNotice() {
        reference.addValueEventListener(new ValueEventListener() {
@Override
public void onDataChange(@NonNull DataSnapshot dataSnapshot) {
        list = new ArrayList<>();
        for (DataSnapshot snapshot :dataSnapshot.getChildren()){
        NoticeData data = snapshot.getValue(NoticeData.class);
        list.add(0,data);
        }
        adapter = new NoticeAdapter(feed.this,list);
        adapter.notifyDataSetChanged();
        progressBar.setVisibility(View.GONE);
        deleteNoticeRecycler.setAdapter(adapter);
        }

@Override
public void onCancelled(@NonNull DatabaseError databaseError) {
        progressBar.setVisibility(View.GONE);

        Toast.makeText(feed.this,databaseError.getMessage() , Toast.LENGTH_SHORT).show();
        }
        });
```

Figure 4.6 Relapse Triggers Avoidance

Chapter 5

RESULTS AND DISCUSSIONS

The Android application 'Avoid Relapse Stay Sober' is mainly built for Rural people and its support multiple Indian languages like English, Hindi, Kannada, Marati, and Telagu. The main aim to develop this application to help the people to stay sober in their live, avoid relaspe and to contact to district de-addition centres. [1]

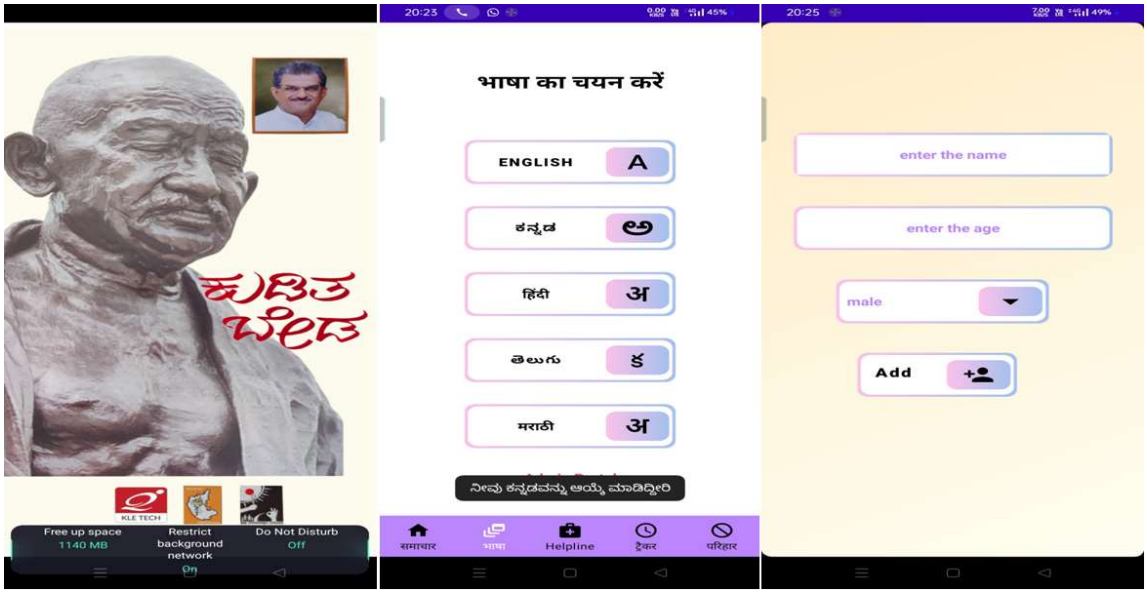

Figure 5.1 Welcome page and selection of language

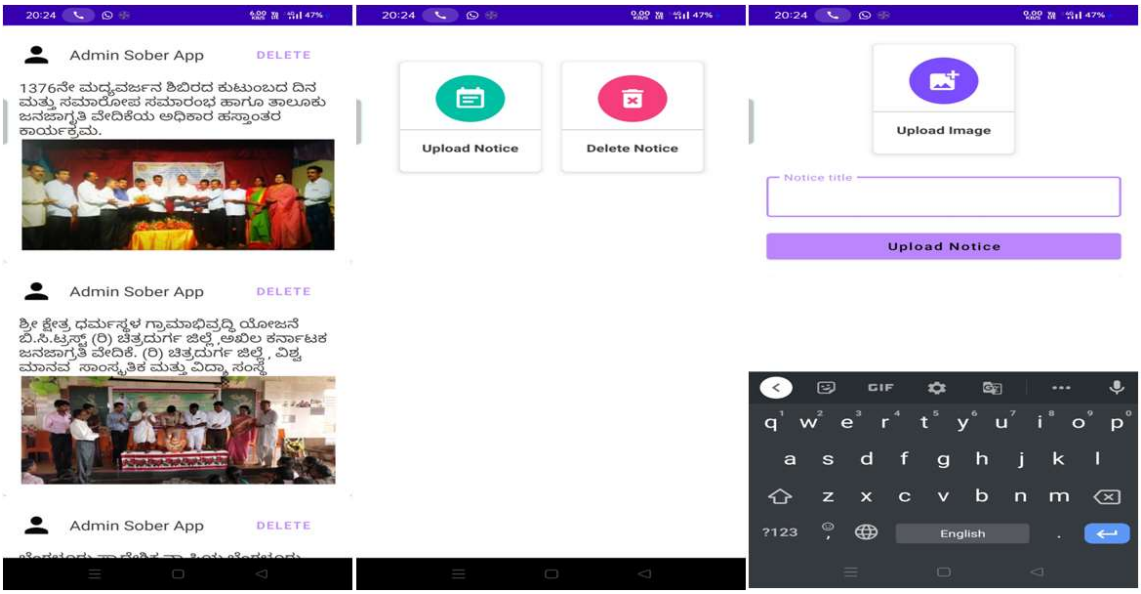

Figure 5.2 post the Feeds

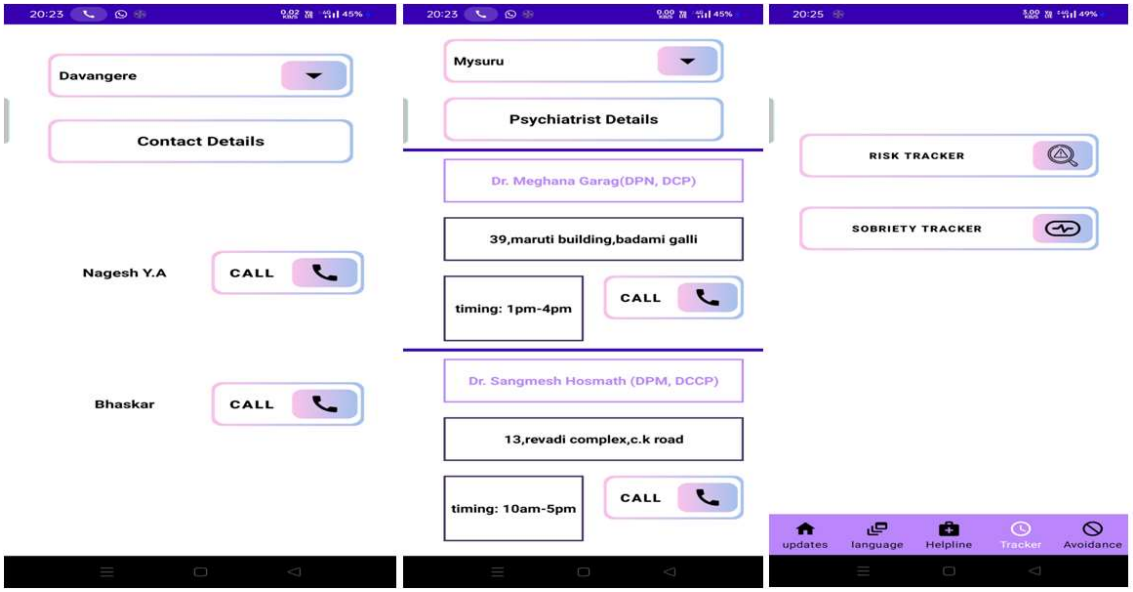

Figure 5.3 Page of Community Contact and Tracker page

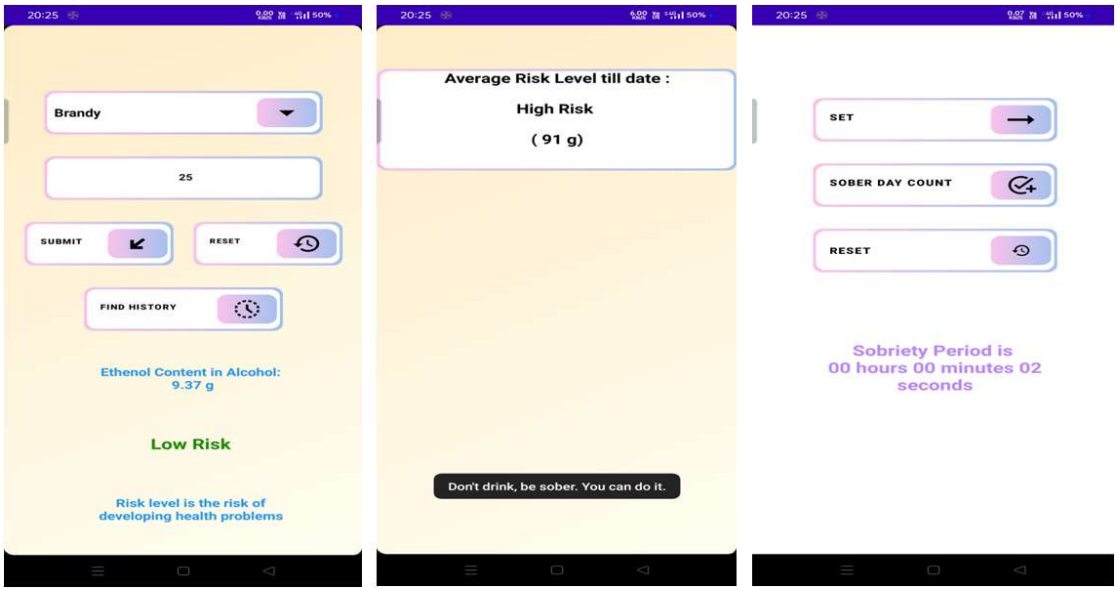

Figure 5.4 Page of Risk Calculator

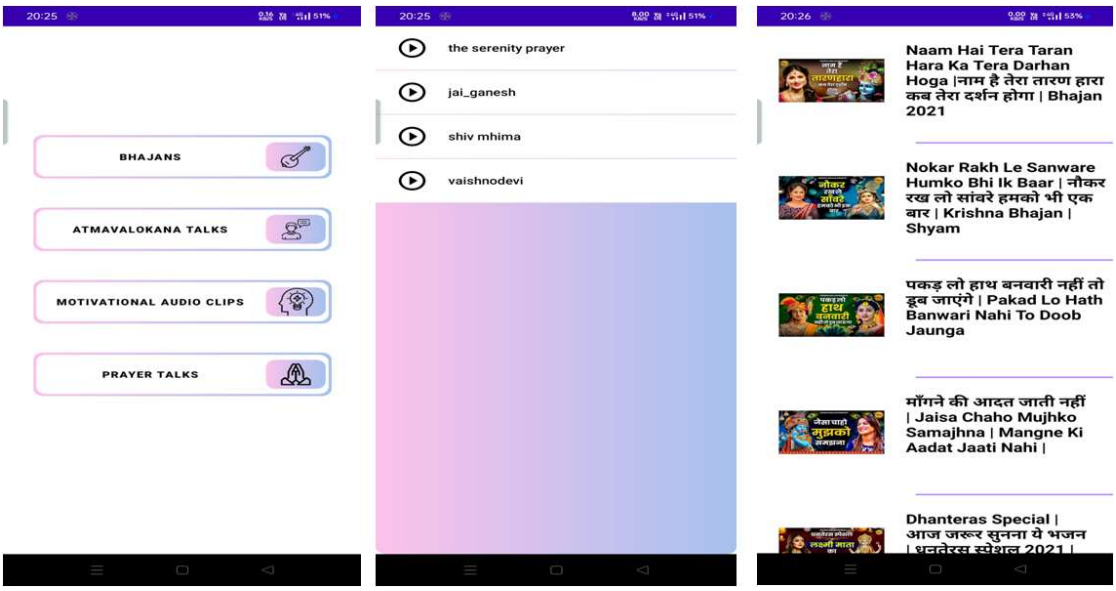

Figure 5.5 page of Avoidance of Relapse

Chapter 6

CONCLUSION AND FUTURE SCOPE OF THE WORK

By using our tool we are able to calculate the risk factor based on the Alcohol consumption and we were able to assist the user to the Helpline number of their District for either admission or avoid relapse and to provide assets to avoid relapse for sobers and their concerned families.

Future Scope

Each user can have credentials. Feed can have like, comment and share option to users. Google map option can be provided for users to get near by de-addiction centres and we can keep track of user activity in each fragment and use those details for data analysis. Admin can upload songs and videos through it application itself.