

**Major Android Project : Make a reminder app , which can remember and notify us about**

- 1. Reminders**
- 2. Birthdays**
- 3. To-Do Lists**



Before proceeding ahead first download the **apk** of **Remindroid** from **Google Play**

<https://play.google.com/store/apps/details?id=com.suven.remindroid&hl=en>

**Only after completely testing the App , start reading the specifications ahead .....**

Duration : 32 hrs  
Team size : 2 members

# Remindroid Application

## Specifications:

### 1<sup>st</sup> Actv: Splash Screen

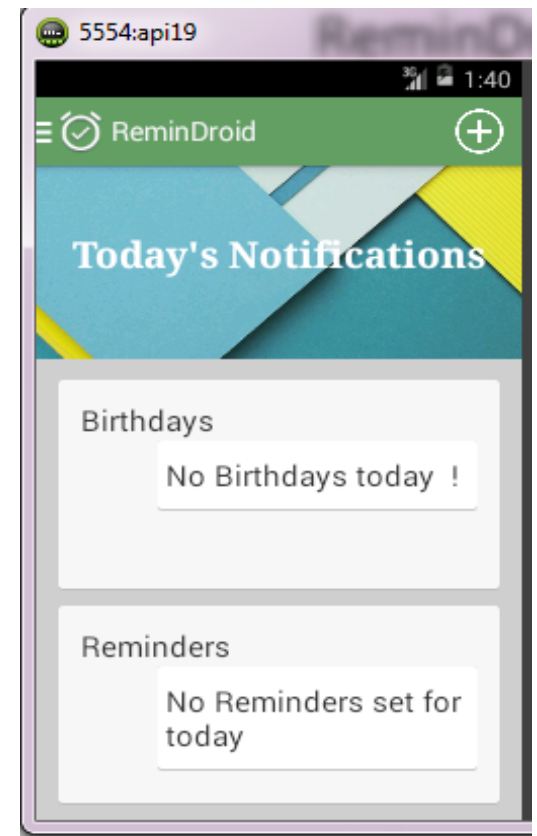
It is a simple splash screen activity.

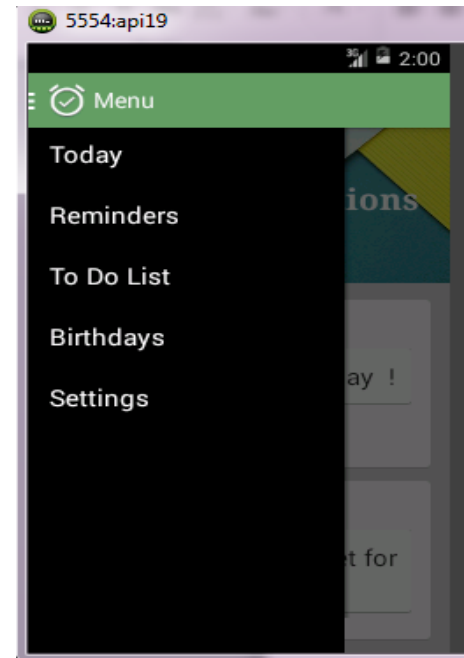
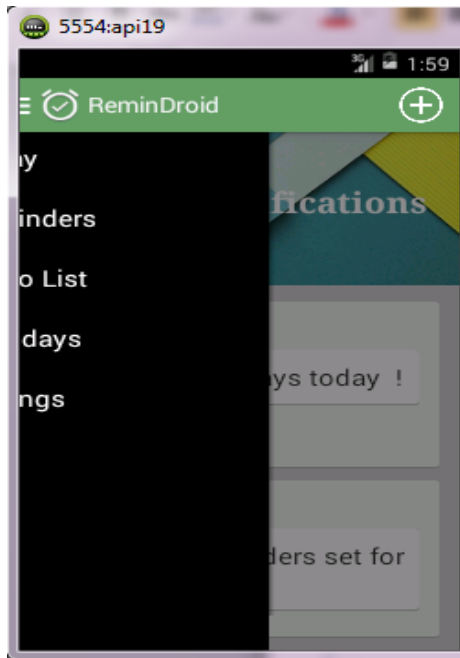


## 2<sup>nd</sup> Activity: Home Activity

It is home page activity which shows Reminders and Birthdays which are stored in the app.

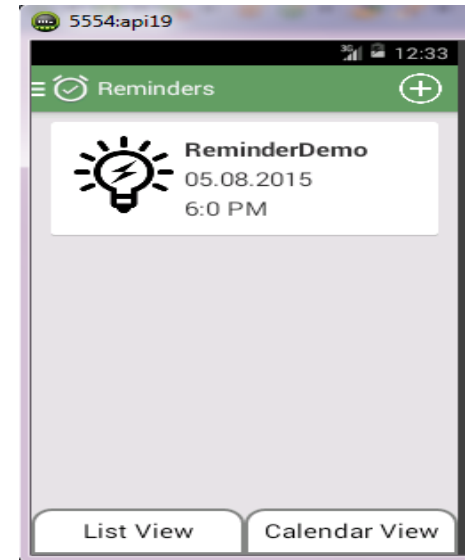
It has Navigation Drawer, when you slide the screen from left, the slider will come from the left side.



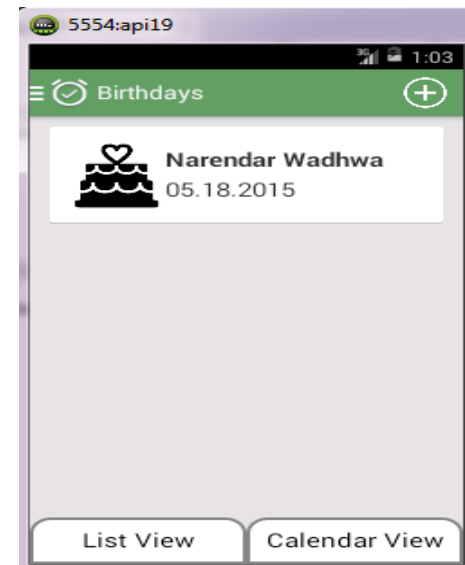


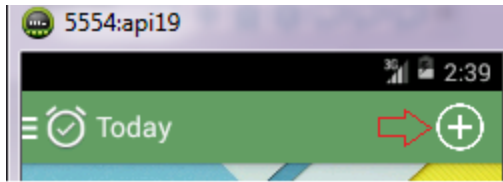
The Navigation Drawer will be seen like this above in the figure. On selecting the items from the Drawer, respective fragment will be shown on the home activity as shown below

On clicking Reminder option ,  
Reminder fragment will be shown.



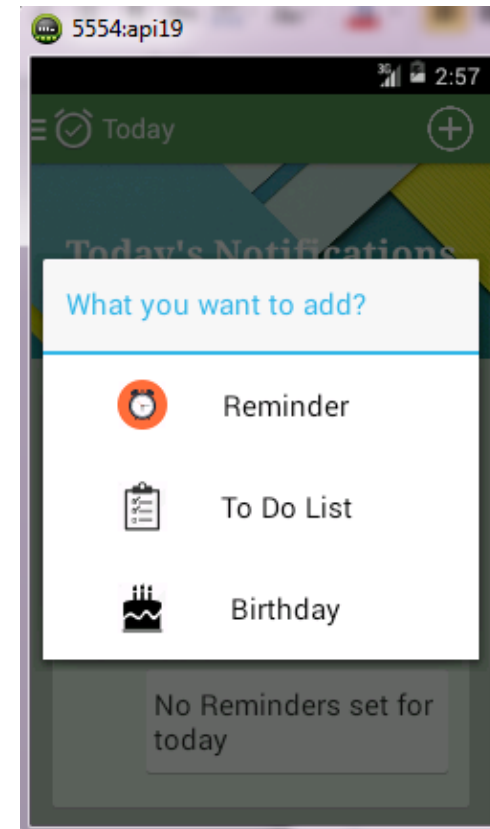
On clicking Birthdays option,  
Birthday fragment will be shown.



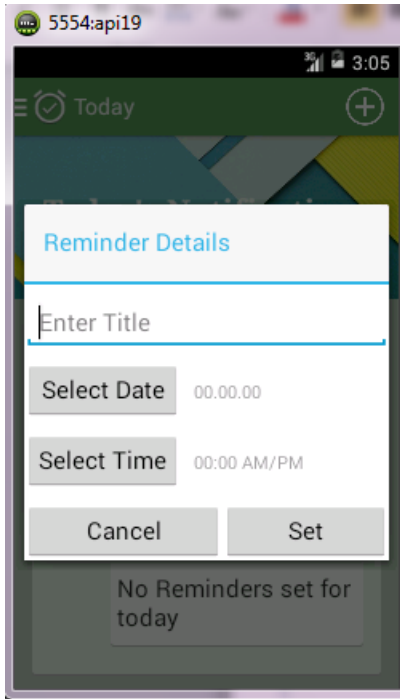


On Home Page if we click on the “plus” sign from the ActionBar, a dialog should come which will slide from the left using **Animations** (*Explained later*)

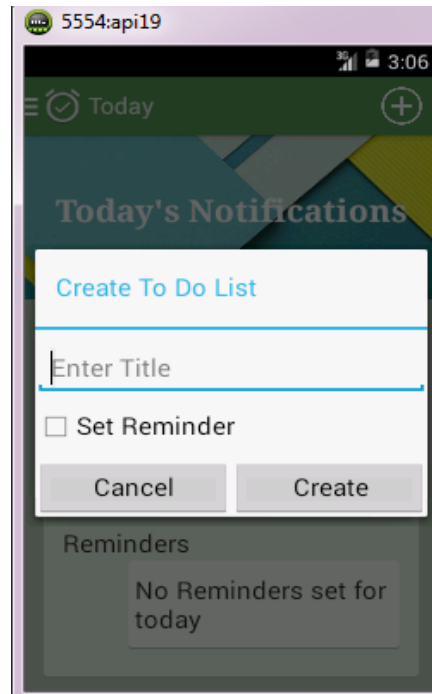
The dialog will appear showing 3 Options as shown.



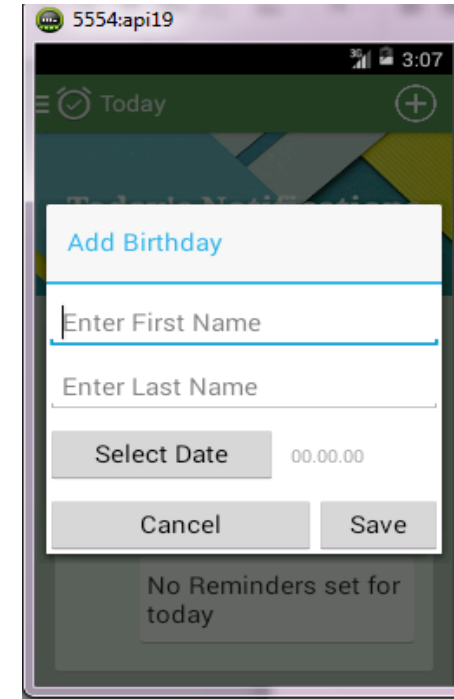
On Selecting option, appropriate Dialogs will come as shown below.



Reminder Dialog



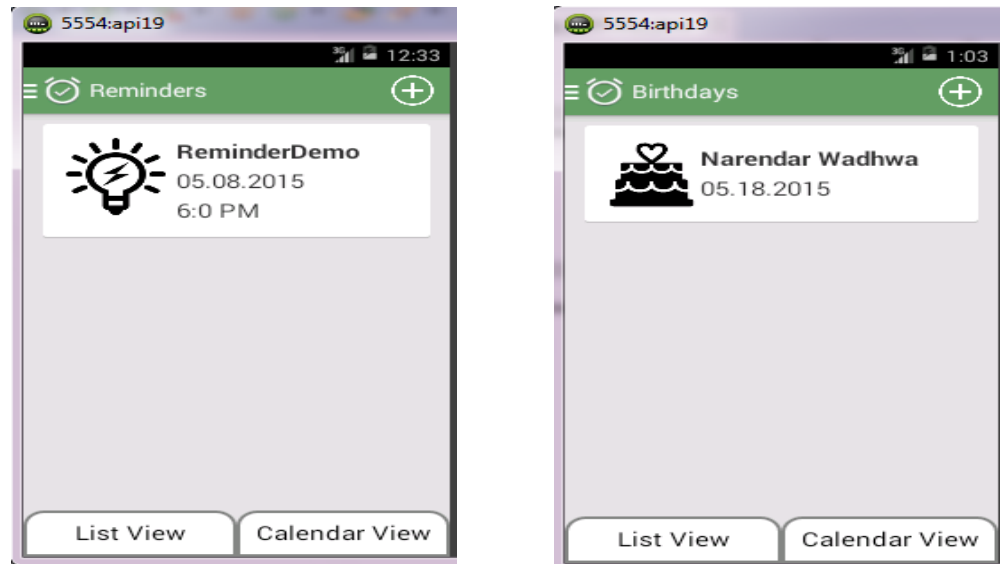
To Do List Dialog



Birthday Dialog

After submitting the data in the dialog, the data should be stored in the SQLite database.

The respective Reminder or Birthday which is added, should be shown in the fragment, on selecting respective Navigation Drawer item as shown below



The Notification should be shown of the Reminder or Birthday which you have set.



## Use of Alarm Manager , Notification Manager & Services in this project:

For example , I have planned to show Notification Message to user at 2 pm on 6<sup>th</sup> September 2015, even though the user did not visited my app.

### Step 1:

So Create a Calendar Object in the activity and set the date and time , to *2015-Sep-06 14:25:00*

The Calendar takes the Value for month of January as 0 , the value of Sep should be 8 not 9.

### **Code Snippet:**

```
Calendar Calendar_Object = Calendar.getInstance();
Calendar_Object.set(Calendar.MONTH, 8);
Calendar_Object.set(Calendar.YEAR, 2015);
Calendar_Object.set(Calendar.DAY_OF_MONTH, 6);

Calendar_Object.set(Calendar.HOUR_OF_DAY, 14); // specify in 24 hrs format
Calendar_Object.set(Calendar.MINUTE, 25);
Calendar_Object.set(Calendar.SECOND, 0);
```

## **Step 2:**

We need to create an alarm which help us to invoke the BroadCastReceiver on our specified time.

### **Code Snippet:**

```
Intent myIntent = new Intent(MyActv.this, AlarmReceiver.class);
```

```
PendingIntent pl= PendingIntent.getBroadcast(MyActv.this, 0, myIntent, 0);
```

```
AlarmManager am=(AlarmManager) getSystemService(ALARM_SERVICE);
```

```
am.set(AlarmManager.RTC,Calendar_Object.getTimeInMillis(), pl);
```

## **Step 3:**

Create AlarmReceiver.class which extends BroadcastReceiver which invoked when our alarm is triggered. (Don't forget to register the BroadcastReceiver)

Then we invoke the Services in the onReceive() method of BroadcastReceiver to show the Notification.

### **Code Snippet:**

```
public class AlarmReceiver extends BroadcastReceiver {  
    @Override  
    public void onReceive(Context context, Intent intent) {  
        // When our Alarm time is triggered , this method will be executed  
        // We're invoking a service in this method which shows Notification to the User  
        Intent i = new Intent(context, NotificationService.class);  
        context.startService(i);  
    }  
}
```

### **Step 4:**

We need to Create a Service which will show Notification to the User.  
create a Service with the name **NotificationService.class**

*Code .. On next slide*

Then we write the code for the Notification inside the onStart() method of the Service as

**Code Snippet:**

```
@Override
public void onStart(Intent intent, int startId) {
super.onStart(intent, startId);
// Getting Notification Service
NotificationManager mManager = (NotificationManager) this.getSystemService()
.getSystemService(this.getSystemService().NOTIFICATION_SERVICE);

// When the user taps the notification we have to show the Home Screen of our App,
this job can be done with the help of the following Intent.
Intent intent1 = new Intent(this.getSystemService(), MyActv.class);
Notification notification = new Notification(R.drawable.icon, "Notification Title",
System.currentTimeMillis());
intent1.addFlags(Intent.FLAG_ACTIVITY_SINGLE_TOP |
Intent.FLAG_ACTIVITY_CLEAR_TOP);

PendingIntent pendingNotificationIntent =
PendingIntent.getActivity(this.getSystemService(), 0, intent1,
PendingIntent.FLAG_UPDATE_CURRENT);
```

```
notification.flags |= Notification.FLAG_AUTO_CANCEL;  
notification.setLatestEventInfo(this.getContext(), "MyTitle",  
"description", pendingNotificationIntent);  
mManager.notify(0, notification);
```

Don't forget to register your Broadcast Receiver as well as Services and your Activity in Manifest File.

# Dialog Sliding Using Animations:

## **Step 1:**

Modify `res/values/styles.xml` to add animation style of `DialogAnimation` , using build-in animation of `slide_in_left` and `slide_out_right` as

```
<style name="DialogAnimation">
<item name="android:windowEnterAnimation">@android:anim/slide_in_left</item>
<item name="android:windowExitAnimation">@android:anim/slide_out_right</item>
</style>
```

## **Step 2:**

When we call the dialog we will have to set the window properties as shown below :

```
Dialog d = new Dialog(MainActivity.this);  
d.setTitle("MyDialog");  
d setContentView(R.layout.activity_second);  
d.getWindow().getAttributes().windowAnimations = R.style.DialogAnimation;  
d.show();
```

The **trainee at level 2 is free to think** about more functionalities , different ways to represent Birthdays , Reminders or to-do list. The Objective is to make a UF Reminder app similar to <https://play.google.com/store/apps/details?id=com.suven.remindroid&hl=en>