

9(A) PROGRAM:

MainActivity.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:app="http://schemas.android.com/apk/res-auto"

    xmlns:tools="http://schemas.android.com/tools"
        android:id="@+id/activity_main"
        android:layout_width="match_parent"
        android:layout_height="match_parent"

        android:paddingBottom="@dimen/activity_vertical_margin"

        android:paddingLeft="@dimen/activity_horizontal_margin"

        android:paddingRight="@dimen/activity_horizontal_margin"

        android:paddingTop="@dimen/activity_vertical_margin"

        tools:context="com.example.reshamverliani.sharemylocation.MainActivity">
    <TextView
        android:id="@+id/tvData"

        android:layout_width="match_parent"

        android:layout_height="wrap_content"

        android:layout_alignParentLeft="true"

        android:layout_alignParentStart="true"

        android:layout_alignParentTop="true"

        android:layout_marginLeft="135dp"
            android:layout_marginStart="135dp"
            android:layout_marginTop="57dp"
            android:text="Fetching Location"
            android:textSize="10sp" />
    <Button
        android:id="@+id/btnShare"
```

```
        android:layout_width="wrap_content"

        android:layout_height="wrap_content"
            android:text="Share"

        android:layout_below="@+id/tvData"

        android:layout_toRightOf="@+id/btnTakePic"

        android:layout_toEndOf="@+id/btnTakePic"
            android:layout_marginTop="25dp"
    />
    <Button
        android:id="@+id/btnTakePic"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"
            android:text="Take Picture"

        android:layout_centerVertical="true"

        android:layout_centerHorizontal="true"
    />
    <ImageView
        android:id="@+id/iv1"
        android:layout_width="100dp"
        android:layout_height="100dp"

        app:srcCompat="@mipmap/ic_launcher"

        android:layout_below="@+id/btnTakePic"

        android:layout_alignRight="@+id/btnTakePic"

        android:layout_alignEnd="@+id/btnTakePic"
            android:layout_marginTop="18dp"
    />
    <Button
        android:id="@+id/btnShare2"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"
            android:text="Share"
```

```

        android:layout_below="@+id/iv1"

        android:layout_alignLeft="@+id/iv1"

        android:layout_alignStart="@+id/iv1"
        android:layout_marginTop="21dp"
    />
</RelativeLayout>

```

MainActivity.java:

```

package
com.example.reshamverliani.sharemylocat
ion;
import android.content.Intent;
import android.graphics.Bitmap;
import android.location.Address;
import android.location.Geocoder;
import android.location.Location;
import android.net.Uri;
import android.provider.MediaStore;
import
android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;
import android.widget.TextView;
import android.widget.Toast;

import
com.google.android.gms.common.Connection
Result;
import
com.google.android.gms.common.api.Google
ApiClient;
import
com.google.android.gms.location.Location
Services;
import
com.google.android.gms.vision.barcode.B
arcode;

import java.io.File;
import java.io.FileNotFoundException;
import java.io.FileOutputStream;
import java.io.IOException;
import java.util.List;
import java.util.Locale;

```

```

public class MainActivity extends
AppCompatActivity
    implements
GoogleApiClient.OnConnectionFailedListe
ner, GoogleApiClient.ConnectionCallbacks
{
    TextView tvData;
    Button
    btnShare, btnShare2, btnTakePic;
    GoogleApiClient gac;
    ImageView iv1;
    Location loc;
    Bitmap photo;
    @Override
    protected void onCreate(Bundle
savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);
        tvData = (TextView)
        findViewById(R.id.tvData);
        btnShare = (Button)
        findViewById(R.id.btnShare);

        btnShare2=(Button) findViewById(R.id.btn
Share2);

        btnTakePic=(Button) findViewById(R.id.bt
nTakePic);

        iv1=(ImageView) findViewById(R.id.iv1);
        GoogleApiClient.Builder builder
        = new GoogleApiClient.Builder(this);

        builder.addApi(LocationServices.API);

        builder.addOnConnectionFailedListener(t
his);

        builder.addConnectionCallbacks(this);
        gac = builder.build();
        btnShare.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View
view) {

                Intent i=new
                Intent(Intent.ACTION_SEND);
                i.setType("text/plain");
            }
        }
    }
}

```

```

i.putExtra(Intent.EXTRA_TEXT, tvData.getText().toString());
        startActivity(i);
    }
});
btnShare2.setOnClickListener(new
View.OnClickListener() {
    @Override
    public void onClick(View
view) {
        File f= new
File(getExternalCacheDir(), "p1.png");
        try {
            FileOutputStream
fos=new FileOutputStream(f);

photo.compress(Bitmap.CompressFormat.PNG
G, 100, fos);

            fos.close();
        } catch (Exception e) {
            e.printStackTrace();
        }
        Intent i= new
Intent(Intent.ACTION_SEND);
        i.setType("image/*");

i.putExtra(Intent.EXTRA_TEXT, tvData.getText().toString());

i.putExtra(Intent.EXTRA_STREAM,
Uri.fromFile(f));
        startActivity(i);
    }
});

btnTakePic.setOnClickListener(new
View.OnClickListener() {
    @Override
    public void onClick(View
view) {
        Intent i=new
Intent(MediaStore.ACTION_IMAGE_CAPTURE)
;

startActivityResult(i, 123);
    }
});
} //end of onCreate()
@Override

```

```

protected void onActivityResult(int
requestCode, int resultCode, Intent
data) {

super.onActivityResult(requestCode,
resultCode, data);
    if(requestCode==123 &&
resultCode==RESULT_OK) {

photo=(Bitmap) data.getExtras().get("data");

        iv1.setImageBitmap(photo);
    }
}
@Override
protected void onResume() {
    super.onResume();
    if(gac!=null) gac.connect();
}
@Override
protected void onPause() {
    super.onPause();
    if(gac!=null) gac.disconnect();
}
@Override
public void onConnected(Bundle
bundle) {

loc=LocationServices.FusedLocationApi.g
etLastLocation(gac);
    if(loc!=null) {
        double lat=loc.getLatitude();
        double
lon=loc.getLongitude();
        tvData.setText(lat+" "+lon);
        Geocoder g=new
Geocoder(this, Locale.ENGLISH);
        try {
            List<Address>
la=g.getFromLocation(lat, lon, 1);
            Address add=la.get(0);
            String
msg=add.getCountryName()
+"
"+add.getAdminArea()+"
"+add.getSubAdminArea()+"
"+add.getLocality()+" "
+add.getSubLocality()+"
"+add.getThoroughfare();

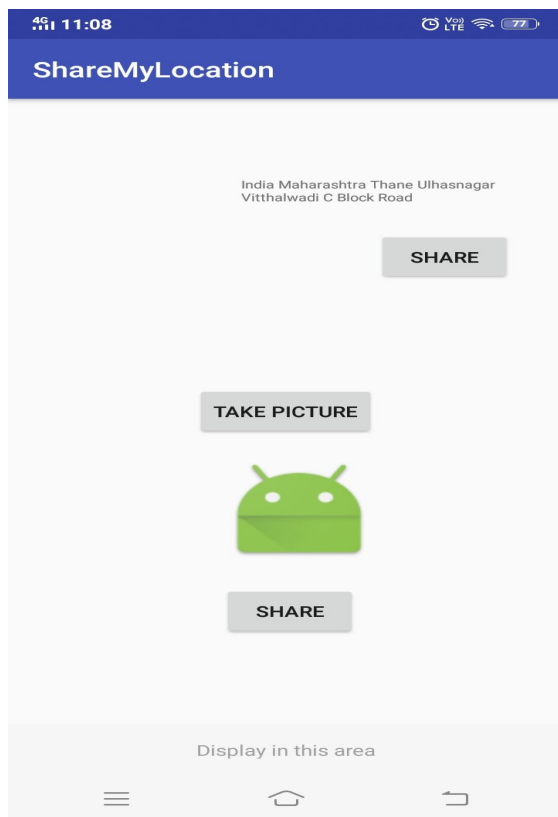
```

```

        tvData.setText(msg);
    } catch (IOException e) {}
}
else {
    Toast.makeText(this, "Enable
GPS",
        Toast.LENGTH_SHORT).show();
}
}
@Override
public void
onConnectionSuspended(int i) {}
@Override
public void
onConnectionFailed(ConnectionResult
connectionResult) {}
}

```

SCREENSHOT:



9(B) PROGRAM:

MainActivity.xml:

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
xmlns:android="http://schemas.android.c
om/apk/res/android"

```

```

xmlns:tools="http://schemas.android.com
/tools"
    android:id="@+id/activity_main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"

    android:paddingBottom="@dimen/activity_
vertical_margin"

    android:paddingLeft="@dimen/activity_ho
rizontal_margin"

    android:paddingRight="@dimen/activity_h
orizontal_margin"

    android:paddingTop="@dimen/activity_ver
tical_margin"

    tools:context="com.example.reshamverlia
ni.alarm.MainActivity">

```

```

<Button
    android:id="@+id/btnStop"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"
        android:layout_marginTop="69dp"
        android:text="Stop Reminder"

    android:layout_below="@+id/btnStart"

    android:layout_centerHorizontal="true"
/>
<Button
    android:id="@+id/btnStart"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"
        android:layout_marginTop="55dp"
        android:text="Start Reminder"

    android:layout_alignParentTop="true"

    android:layout_alignRight="@+id/btnStop
"

```

```

android:layout_alignEnd="@+id/btnStop"
/>
</RelativeLayout>

```

MainActivity.java:

```

package
com.example.reshamverliani.alarm;
import android.app.AlarmManager;
import android.app.PendingIntent;
import android.content.Intent;
import
android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

public class MainActivity extends
AppCompatActivity {
    Button btnStart,btnStop;
    @Override
    protected void onCreate(Bundle
savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        btnStart=(Button)findViewById(R.id.btnS
tart);

        btnStop=(Button)findViewById(R.id.btnSt
op);

        Intent i=new
Intent(MainActivity.this,MyReciever.cla
ss);

        final PendingIntent
pi=PendingIntent.getBroadcast(this,1234
,i,0);

        final AlarmManager
am=(AlarmManager)getSystemService(ALARM
_SERVICE);

        btnStart.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View
view) {

                long
time=System.currentTimeMillis()+10000;

```

```

am.set(AlarmManager.RTC_WAKEUP,time,pi)
;

        }

    });

    btnStop.setOnClickListener(new
View.OnClickListener() {
        @Override
        public void onClick(View
view) {

            am.cancel(pi);

        }

    });

}

```

MyReciever.java:

```

package
com.example.reshamverliani.alarm;
import android.app.AlarmManager;
import android.app.NotificationManager;
import android.app.PendingIntent;
import
android.content.BroadcastReceiver;
import android.content.Context;
import android.content.Intent;
import android.media.MediaPlayer;
import
android.support.v4.app.NotificationComp
at;
import android.widget.Toast;
import java.util.Date;
import static
android.content.Context.ALARM_SERVICE;

public class MyReciever extends
BroadcastReceiver {
    MediaPlayer mp;
    public MyReciever() {}
    @Override
    public void onReceive(Context
context, Intent intent) {

        Toast.makeText(context, "Please
drink water",
Toast.LENGTH_SHORT).show();

        NotificationCompat.Builder
builder=new
NotificationCompat.Builder(context);

```

```

builder.setSmallIcon(android.R.drawable
.ic_dialog_alert);
builder.setContentText("Water
Reminder");
builder.setSubText("Please Drink
Water"+new Date());
NotificationManager
nm=(NotificationManager) context.getSystemService(Context.NOTIFICATION_SERVICE);

nm.notify(1,builder.build());

mp=MediaPlayer.create(context,R.raw.alarm);

mp.start();
new Thread(new Runnable() {
@Override
public void run() {
try {
Thread.sleep(3000);
} catch
(InterruptedException e) {
e.printStackTrace();
}
mp.stop();
}
}).start();
Intent i=new
Intent(context,MyReceiver.class);
PendingIntent
pi=PendingIntent.getBroadcast(context,1234,i,0);

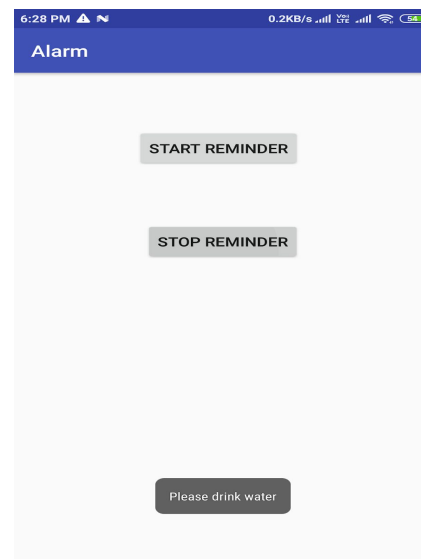
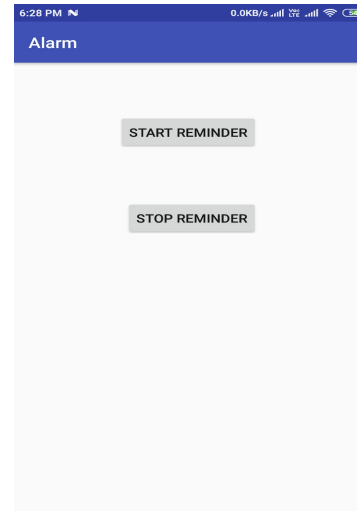
AlarmManager
am=(AlarmManager) context.getSystemService(ALARM_SERVICE);

long
time=System.currentTimeMillis()+500;

am.set(AlarmManager.RTC_WAKEUP,time,pi);
}
}

```

SCREENSHOTS:



NOTIFICATION OF ALERT:

