**SAMPLE SOURCE CODE**

**SMS Sending**

Text messages are sent using the network carrier. The Coding to send text message to a mobile number in android is given below.

SmsManager sms=SmsManager.*getDefault*();

sms.sendTextMessage(num, **null**, txt, **null**, **null**);

Here txt refers to the message and num is the phone num to which the message is sent.

**package** com.example.hereicome;

**import** android.app.Activity;

**import** android.content.Context;

**import** android.location.Location;

**import** android.location.LocationListener;

**import** android.location.LocationManager;

**import** android.os.Bundle;

**import** android.telephony.SmsManager;

**import** android.text.format.Time;

**import** android.widget.TextView;

**import** android.widget.Toast;

**public** **class** smsAlert **extends** Activity {

**public** **class** Mylocation **implements** LocationListener {

@Override

**public** **void** onLocationChanged(Location location) {

Toast.*makeText*(getApplicationContext(), "latitude: "+location.getLatitude()+" longitude: "+location.getLongitude(),Toast.*LENGTH\_LONG*).show();

today = **new** Time(Time.*getCurrentTimezone*());

today.setToNow();

time=today.format("%k:%M:%S");

date=today.format("%h-%d-%Y");

Toast.*makeText*(getApplicationContext(),"Time: "+time+" Date: "+date,Toast.*LENGTH\_LONG*).show();

**double** lat=location.getLatitude();

**double** lon=location.getLongitude();

**try** {

JSONObject json= JSONfunctions.*getJSONfromURL* ("http://maps.googleapis.com/maps/api/geocode/json?latlng="+lat+","+lon+"&sensor=false");

contacts = json.getJSONArray("results");

**for**(**int** i = 0; i < 1; i++) {

JSONObject c = contacts.getJSONObject(0);

String id = c.getString("formatted\_address");

da=time+" "+date;

SmsManager sms=SmsManager.*getDefault*();

sms.sendTextMessage(num, **null**, id+"\n"+da,**null**, **null**);

Toast.*makeText*(smsAlert.**this**,"Message Sent", 300).show();

t1.setText(id+"\n"+da);

}

}

**catch** (JSONException e) {

e.printStackTrace();

Toast.*makeText*(smsAlert.**this**,"Error"+e, 300).show();

}

}

@Override

**public** **void** onProviderDisabled(String arg0) {

}

@Override

**public** **void** onProviderEnabled(String arg0) {

}

@Override

**public** **void** onStatusChanged(String arg0, **int** arg1, Bundle arg2) {

}

}

String num;TextView t1;

LocationManager lm;LocationListener ll;

Time today;

String time,date;

String da;

JSONArray contacts = **null**;

**boolean** isGPSEnabled = **false**;

**boolean** isNetworkEnabled = **false**;

**boolean** canGetLocation = **false**;

@Override

**protected** **void** onCreate(Bundle savedInstanceState) {

**super**.onCreate(savedInstanceState);

setContentView(R.layout.*activity\_main*);

Bundle d=**new** Bundle();

d=getIntent().getExtras();

num=d.getString("num");

t1=(TextView)findViewById(R.id.*textView1*);

lm=(LocationManager)getSystemService(Context.*LOCATION\_SERVICE*);

ll=**new** Mylocation();

isGPSEnabled = lm

.isProviderEnabled(LocationManager.*GPS\_PROVIDER*);

isNetworkEnabled = lm

.isProviderEnabled(LocationManager.*NETWORK\_PROVIDER*);

**if** (!isGPSEnabled && !isNetworkEnabled) {

}

**else** {

**this**.canGetLocation = **true**;

**if** (isNetworkEnabled) {

lm.requestLocationUpdates(LocationManager.*NETWORK\_PROVIDER*,1000,0, ll);

}

**if** (isGPSEnabled) {

lm.requestLocationUpdates(LocationManager.*GPS\_PROVIDER*, 1000,0, ll);}

}

}

}

**Alarm Clock**

The Alarm Clock module is used to invoke the existing Alarm intent for setting alarm at a user specific clock time. The coding to invoke the alarm clock is given below.

**package** com.example.hereicome;

**import** java.util.Calendar;

**import** android.os.Bundle;

**import** android.app.Activity;

**import** android.app.AlarmManager;

**import** android.app.PendingIntent;

**import** android.app.TimePickerDialog;

**import** android.app.TimePickerDialog.OnTimeSetListener;

**import** android.content.Context;

**import** android.content.Intent;

**import** android.view.Menu;

**import** android.view.View;

**import** android.view.View.OnClickListener;

**import** android.widget.Button;

**import** android.widget.TextView;

**import** android.widget.TimePicker;

**public** **class** MainActivity **extends** Activity {

TimePicker myTimePicker;

Button buttonstartSetDialog;

TextView textAlarmPrompt;

TimePickerDialog timePickerDialog;

**final** **static** **int** *RQS\_1* = 1;

@Override

**protected** **void** onCreate(Bundle savedInstanceState) {

**super**.onCreate(savedInstanceState);

setContentView(R.layout.*activity\_main*);

textAlarmPrompt = (TextView)findViewById(R.id.*alarmprompt*);

buttonstartSetDialog = (Button)findViewById(R.id.*startSetDialog*);

buttonstartSetDialog.setOnClickListener(**new** OnClickListener(){

**public** **void** onClick(View v) {

textAlarmPrompt.setText("");

openTimePickerDialog(**false**);

}

});

}

**private** **void** openTimePickerDialog(**boolean** is24r){

Calendar calendar = Calendar.*getInstance*();

timePickerDialog = **new** TimePickerDialog(

MainActivity.**this**,

onTimeSetListener,

calendar.get(Calendar.*HOUR\_OF\_DAY*),

calendar.get(Calendar.*MINUTE*),

is24r);

timePickerDialog.setTitle("Set Alarm Time");

timePickerDialog.show();

}

OnTimeSetListener onTimeSetListener=**new** OnTimeSetListener(){

@Override

**public** **void** onTimeSet(TimePicker view, **int** hourOfDay, **int** minute) {

Calendar calNow = Calendar.*getInstance*();

Calendar calSet = (Calendar) calNow.clone();

calSet.set(Calendar.*HOUR\_OF\_DAY*, hourOfDay);

calSet.set(Calendar.*MINUTE*, minute);

calSet.set(Calendar.*SECOND*, 0);

calSet.set(Calendar.*MILLISECOND*, 0);

**if**(calSet.compareTo(calNow) <= 0){

calSet.add(Calendar.*DATE*, 1);

}

setAlarm(calSet);

}};

**private** **void** setAlarm(Calendar targetCal){

textAlarmPrompt.setText(

"\n\n\n"

+ "Alarm is set at " + targetCal.getTime() + "\n"

+ "\n");

Intent intent = **new** Intent(getBaseContext(), AlarmReceiver.**class**);

PendingIntent pendingIntent = PendingIntent.*getBroadcast*(getBaseContext(), *RQS\_1*, intent, 0);

AlarmManager alarmManager = (AlarmManager)getSystemService(Context.*ALARM\_SERVICE*);

alarmManager.set(AlarmManager.*RTC\_WAKEUP*, targetCal.getTimeInMillis(), pendingIntent);

}

@Override

**public** **boolean** onCreateOptionsMenu(Menu menu) {

getMenuInflater().inflate(R.menu.*activity\_main*, menu);

**return** **true**;

}

}

**Maps**

The Maps module uses the open source application Google Maps to display the map and get directions from the current user location to the destination. Its also fetches the latitude and longitude coordinates accurately for the same purpose. The coding for maps is given below.

**package** com.example.hereicome;

**import** android.content.Context;

**import** android.content.Intent;

**import** android.location.Location;

**import** android.location.LocationListener;

**import** android.location.LocationManager;

**import** android.os.Bundle;

**import** android.telephony.SmsManager;

**import** android.text.format.Time;

**import** android.view.GestureDetector;

**import** android.view.MotionEvent;

**import** android.widget.Toast;

**import** com.google.android.maps.GeoPoint;

**import** com.google.android.maps.MapActivity;

**import** com.google.android.maps.MapView;

**import** com.google.android.maps.Overlay;

**public** **class** Map1 **extends** MapActivity{

**double** lat,lon;String time,date;

String da;

JSONArray contacts = **null**;

**public** **class** MyLoc **implements** LocationListener {

@Override

**public** **void** onLocationChanged(Location location) {

String coordinates[]={""+location.getLatitude(),""+location.getLongitude()};

lat=Double.*parseDouble*(coordinates[0]);

lon=Double.*parseDouble*(coordinates[1]);

Toast.*makeText*(getBaseContext(), lat + "," +lon , 3000).show();

Time today = **new** Time(Time.*getCurrentTimezone*());

today.setToNow();

time=today.format("%k:%M:%S");

date=today.format("%h-%d-%Y");

Toast.*makeText*(getApplicationContext(),"Time: "+time+" Date: "+date,Toast.*LENGTH\_LONG*).show();

**double** lat=location.getLatitude();

**double** lon=location.getLongitude();

**try** {

JSONObject json = JSONfunctions.*getJSONfromURL*("http://maps.googleapis.com/maps/api/geocode/json?latlng="+lat+","+lon+"&sensor=false");

contacts = json.getJSONArray("results");

**for**(**int** i = 0; i < 1; i++){

JSONObject c = contacts.getJSONObject(0);

String id = c.getString("formatted\_address");

da=time+" "+date;

SmsManager sms=SmsManager.*getDefault*();

sms.sendTextMessage(num, **null**, id+"\n"+da,**null**, **null**);

Toast.*makeText*(Map1.**this**,"Message Sent", 300).show();

}

}

**catch** (JSONException e) {

e.printStackTrace();

Toast.*makeText*(Map1.**this**,"Error"+e, 300).show();

}

}

@Override

**public** **void** onProviderDisabled(String provider) {

}

@Override

**public** **void** onProviderEnabled(String provider) {

}

@Override

**public** **void** onStatusChanged(String provider, **int** status, Bundle extras) {

}

}

MapView m; GestureDetector mGestureDetector;LocationManager lm;

LocationListener ll;

**boolean** isGPSEnabled = **false**;

String num;

**boolean** isNetworkEnabled = **false**;

**boolean** canGetLocation = **false**;

@Override

**protected** **void** onCreate(Bundle icicle) {

**super**.onCreate(icicle);

setContentView(R.layout.*map1*);

num=getIntent().getExtras().getString("loc");

Toast.*makeText*(Map1.**this**, num, Toast.*LENGTH\_LONG*).show();

lm=(LocationManager)getSystemService(Context.*LOCATION\_SERVICE*);

ll=**new** MyLoc();

isGPSEnabled = lm

.isProviderEnabled(LocationManager.*GPS\_PROVIDER*);

isNetworkEnabled = lm

.isProviderEnabled(LocationManager.*NETWORK\_PROVIDER*);

**if** (!isGPSEnabled && !isNetworkEnabled) {

}

**else** {

**this**.canGetLocation = **true**;

**if** (isNetworkEnabled) {

lm.requestLocationUpdates(LocationManager.*NETWORK\_PROVIDER*,120000,0, ll);

}

**if** (isGPSEnabled) {

lm.requestLocationUpdates(LocationManager.*GPS\_PROVIDER*, 120000,0, ll);

}

}

m=(MapView)findViewById(R.id.*mapview*);

m.setBuiltInZoomControls(**true**);

m.setSatellite(**true**);

m.getOverlays().add(**new** Overlay() {

@Override

**public** **boolean** onTouchEvent(MotionEvent event, MapView mapView) {

mGestureDetector.onTouchEvent(event);

**return** **super**.onTouchEvent(event, mapView);

}

});

mGestureDetector = **new** GestureDetector(**new** GestureDetector.SimpleOnGestureListener() {

@Override

**public** **boolean** onDoubleTap(MotionEvent e) {

GeoPoint p = m.getProjection().fromPixels((**int**)e.getX(), (**int**)e.getY());

Toast.*makeText*(getBaseContext(), p.getLatitudeE6() / 1E6 + "," + p.getLongitudeE6() /1E6 , 3000).show();

Intent i=**new** Intent(Map1.**this**,MapAct.**class**);

i.putExtra("latd", p.getLatitudeE6()/1E6);

i.putExtra("lond", p.getLongitudeE6()/1E6);

i.putExtra("lat", lat);

i.putExtra("lon", lon);

startActivity(i);

**return** **super**.onDoubleTap(e);

}

});

}

**protected** **boolean** isRouteDisplayed() {

**return** **false**;

}

}

**import** android.location.LocationListener;

**import** android.location.LocationManager;

**import** android.net.Uri;

**import** android.os.Bundle;

**import** android.app.Activity;

**import** android.content.Intent;

**public** **class** MapAct **extends** Activity {

**double** s,s1,lat,lon;

LocationManager lm;

LocationListener ll;

@Override

**public** **void** onCreate(Bundle savedInstanceState) {

**super**.onCreate(savedInstanceState);

setContentView(R.layout.*activity\_map*);

lat=getIntent().getExtras().getDouble("lat");

lon=getIntent().getExtras().getDouble("lon");

s=getIntent().getExtras().getDouble("latd");

s1=getIntent().getExtras().getDouble("lond");

Intent i=**new** Intent(android.content.Intent.*ACTION\_VIEW*,Uri.*parse*("http://maps.google.com/maps?saddr="+lat+","+lon+"&daddr="+s+","+s1));

startActivity(i);

}

}

**User Input**

The user inputs such as Event Name, Contact Name, Phone number, Alarm Time, Date and Destination Location are fetched from the user using these functions. The main activity is written in Android xml format and the functions are specified in java language. The code for the user inputs is given below.

**package** com.example.hereicome;

**import** android.os.Bundle;

**import** android.app.Activity;

**import** android.content.Intent;

**import** android.view.Menu;

**import** android.view.View;

**import** android.view.View.OnClickListener;

**import** android.widget.Button;

**import** android.widget.TextView;

**public** **class** MainActivity **extends** Activity **implements** OnClickListener {

Button b1,b2;TextView t1;

@Override

**protected** **void** onCreate(Bundle savedInstanceState) {

**super**.onCreate(savedInstanceState);

setContentView(R.layout.*activity\_main*);

b1=(Button)findViewById(R.id.*button1*);

b2=(Button)findViewById(R.id.*button2*);

t1=(TextView)findViewById(R.id.*textView1*);

b1.setOnClickListener(**this**);

b2.setOnClickListener(**this**);

Bundle extras=getIntent().getExtras();

String value1 = extras.getString("tag\_person\_name");

String value2 = extras.getString("tag\_person\_pin");

String value3 = extras.getString("e1");

String value4 = extras.getString("tag\_person\_pin3");

t1.setText(value1+"\n"+value2+"\n"+value3+"\n"+value4);

}

@Override

**public** **boolean** onCreateOptionsMenu(Menu menu) {

getMenuInflater().inflate(R.menu.*activity\_main*, menu);

**return** **true**;

}

@Override

**public** **void** onClick(View v) {

**switch**(v.getId()){

**case** R.id.*button1*:

Intent i=**new** Intent(MainActivity.**this**,Enter2.**class**);

startActivity(i);

**break**;

**case** R.id.*button2*:

t1.setText("");

**break**;

}

}

**package** com.example.hereicome;

**import** android.content.ContentValues;

**import** android.content.Context;

**import** android.database.Cursor;

**import** android.database.sqlite.SQLiteDatabase;

**import** android.database.sqlite.SQLiteOpenHelper;

**import** android.util.Log;

**public** **class** PersonDatabaseHelper {

**private** **static** **final** String *TAG* = PersonDatabaseHelper.**class**.getSimpleName();

**private** **static** **final** **int** *DATABASE\_VERSION* = 1;

**private** **static** **final** String *DATABASE\_NAME* = "mydatabaseDB";

**private** **static** **final** String *TABLE\_NAME* = "meeting"; **private** **static** **final** String *PERSON\_TABLE\_COLUMN\_ID* = "\_id";**private** **static** **final** String *PERSON\_TABLE\_COLUMN\_NAME* = "person\_name";

**private** **static** **final** String *PERSON\_TABLE\_COLUMN\_PERSON* = "person\_pin";

**private** **static** **final** String *PERSON\_TABLE\_COLUMN\_PLACE* = "person\_place";

**private** **static** **final** String *PERSON\_TABLE\_COLUMN\_DATE* = "person\_date";

**private** **static** **final** String *PERSON\_TABLE\_COLUMN\_NO* = "person\_no";

**private** DatabaseOpenHelper openHelper;

**private** SQLiteDatabase database;

**public** PersonDatabaseHelper(Context aContext) {

openHelper = **new** DatabaseOpenHelper(aContext);

database = openHelper.getWritableDatabase();

}

**public** **void** insertData (String aPersonName, String aPersonPin, String aPersonPlace, String aPersonDate, String aPersonno ) {

ContentValues contentValues = **new** ContentValues();

contentValues.put(*PERSON\_TABLE\_COLUMN\_NAME*, aPersonName);

contentValues.put(*PERSON\_TABLE\_COLUMN\_PERSON*, aPersonPin);

contentValues.put(*PERSON\_TABLE\_COLUMN\_PLACE*, aPersonPlace);

contentValues.put(*PERSON\_TABLE\_COLUMN\_DATE*, aPersonDate);

contentValues.put(*PERSON\_TABLE\_COLUMN\_NO*, aPersonno);

database.insert(*TABLE\_NAME*, **null**, contentValues);

}

**public** Cursor getAllData () {

String buildSQL = "SELECT \* FROM " + *TABLE\_NAME*;

Log.*d*(*TAG*, "getAllData SQL: " + buildSQL);

**return** database.rawQuery(buildSQL, **null**);

}

**private** **class** DatabaseOpenHelper **extends** SQLiteOpenHelper {

**public** DatabaseOpenHelper(Context aContext) {

**super**(aContext, *DATABASE\_NAME*, **null**, *DATABASE\_VERSION*);

}

@Override

**public** **void** onCreate(SQLiteDatabase sqLiteDatabase) {

String buildSQL = "CREATE TABLE " + *TABLE\_NAME* + "( " + *PERSON\_TABLE\_COLUMN\_ID* + " INTEGER PRIMARY KEY, " +

*PERSON\_TABLE\_COLUMN\_NAME* + " TEXT, " + *PERSON\_TABLE\_COLUMN\_PERSON* + " TEXT, " + *PERSON\_TABLE\_COLUMN\_PLACE* + " TEXT, " + *PERSON\_TABLE\_COLUMN\_DATE* + " TEXT, " + *PERSON\_TABLE\_COLUMN\_NO* + " TEXT )";

Log.*d*(*TAG*, "onCreate SQL: " + buildSQL);

sqLiteDatabase.execSQL(buildSQL);

}

@Override

**public** **void** onUpgrade(SQLiteDatabase sqLiteDatabase, **int** oldVersion, **int** newVersion) {

String buildSQL = "DROP TABLE IF EXISTS " + *TABLE\_NAME*;

Log.*d*(*TAG*, "onUpgrade SQL: " + buildSQL);

sqLiteDatabase.execSQL(buildSQL);

onCreate(sqLiteDatabase);

}

}

}