***	*******************************
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*	School: Alpharetta High School in Alpharetta, GA
*	State: Georgia
*	Event: Mobile Application Development
*	2015 FBLA National Leadership Conference
*	
*	Code PDF for Kalendo
***	*****************************

package com.alpharettafbla.kalendo; import java.util.ArrayList; import java.util.Date; import java.util.Timer; import java.util.TimerTask; import java.util.concurrent.ExecutionException; import org.json.JSONException; import org.json.JSONObject; import android.app.Activity; import android.content.Intent; import android.graphics.Color; import android.graphics.Typeface; import android.graphics.drawable.Drawable; import android.os.Bundle; import android.text.format.DateFormat; import android.util.Log; import android.view.Gravity; import android.view.Menu; import android.view.MenuItem; import android.view.View; import android.view.ViewTreeObserver; import android.view.ViewTreeObserver.OnGlobalLayoutListener; import android.widget.Button; import android.widget.HorizontalScrollView; import android.widget.LinearLayout; import android.widget.TextView; import android.widget.Toast; import com.alpharettafbla.kalendo.R; public class MainActivity extends Activity { private LinearLayout horizLayout; private HorizontalScrollView horizScroll; private int scrollMax; private int scrollPos = 0; private TimerTask scrollerSchedule; private Timer scrollTimer = null; private TextView todayEvents; private boolean hasInternet = false; //Contains references to pictures of Alpharetta High School students at various events private String[] imageNameArray = { "ahs", "swim_team", "fbla_comp", "basketball_team", "science_fair", "science_fair2", "speech", "fbla_sign", "college_fair", "hosa", "fccla", "basketball_game", "raiders", "speech_nationals", "speech_debate", "fbla_hug",

"experimental_kitchen", "prom" };

```
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity main);
    //Sets up banner image scroller
    initializeBannerScroller();
    //Displays today's date
    initializeDateText();
    //Checks network before accessing the calendar
    checkInternet();
}
@Override
public boolean onCreateOptionsMenu(Menu menu) {
    //Creates the menu for app info
    getMenuInflater().inflate(R.menu.main, menu);
    return true;
}
@Override
public boolean onOptionsItemSelected(MenuItem item) {
    //Opens activity to display app info
    switch (item.getItemId()) {
         case R.id.app_info:
             Intent i = new Intent(this, InfoActivity.class);
             startActivity(i);
             break;
    }
    return super.onOptionsItemSelected(item);
}
public void initializeDateText() {
    //Formats text for the current date
    Date date = new Date();
    todayEvents = (TextView) findViewById(R.id.today_view);
    todayEvents.setGravity(Gravity.CENTER);
    todayEvents.setTextColor(Color.BLACK);
    todayEvents.setTextSize(28);
    todayEvents.setTypeface(null, Typeface.BOLD);
    todayEvents.setText(DateFormat.format("MMMM d, yyyy ", date)+"\n");
}
public void checkInternet() {
    //Internet is required to load calendar data
    if (CheckNetwork.isInternetAvailable(getApplicationContext())) {
         //Okay to proceed with app processes
         hasInternet = true;
        todayEvents.append("Today's Events:\n");
```

```
initializeTodayEvents();
    }
    else {
        hasInternet = false;
        //Cannot do required processes without connection
        todayEvents.append("\nThere is no Internet connection.\n" +
                                   "Please connect and restart the app.");
    }
}
public void initializeTodayEvents() {
    //Events will be added to this layout
    LinearLayout todayLayout = (LinearLayout) findViewById(R.id.today_layout);
    String calURL = BuildURL.todayURL();
    RequestCal googleCal = (RequestCal) new RequestCal().execute(calURL);
    try {
         //Saves the returned object as a JSON Object
        JSONObject jsonObj = new JSONObject(googleCal.get());
        ArrayList<EventInfo> allEvents = EventList.analyzeData(jsonObj);
         if(allEvents.size() == 0) {
             TextView noEvents = new TextView(this);
             EventText.noEvents(noEvents, getString(R.string.no_today));
             todayLayout.addView(noEvents);
             return;
        }
        //Loops through events list to analyze them individually
        for (EventInfo indexEvent : allEvents) {
             //Event name
             TextView eventHeader = new TextView(this);
             EventText.header(eventHeader, indexEvent);
             todayLayout.addView(eventHeader);
             //Event time
             TextView eventTime = new TextView(this);
             EventText.time(eventTime, indexEvent);
             todayLayout.addView(eventTime);
             //Event description
             TextView eventDesc = new TextView(this);
             EventText.descrip(eventDesc, indexEvent);
             todayLayout.addView(eventDesc);
             //Skips line between events
             TextView spacer = new TextView(this);
             EventText.spacer(spacer);
             todayLayout.addView(spacer);
         }
    } catch (JSONException e) {
```

```
Log.e("JSONException", "Error: " + e.toString());
    } catch (ExecutionException e) {
         Log.e("ExecutionException", "Error: " + e.toString());
    } catch (InterruptedException e) {
         Log.e("ExecutionException", "Error: " + e.toString());
    }
}
public void initializeBannerScroller() {
    //Banner image scroller setup
    horizScroll = (HorizontalScrollView) findViewById(R.id.horiz_scroll);
    horizLayout = (LinearLayout) findViewById(R.id.horiz layout);
    horizScroll.setHorizontalScrollBarEnabled(false);
    addImagesToView();
    ViewTreeObserver vto = horizLayout.getViewTreeObserver();
    vto.addOnGlobalLayoutListener(new OnGlobalLayoutListener() {
        @Override
        public void onGlobalLayout() {
             resetScroll();
        }
    });
    horizScroll.fullScroll(View.FOCUS LEFT);
}
public void addImagesToView() {
    //Adds images to the banner scroller
    //Images are of Alpharetta High School students at various events
    for (int i = 0; i < imageNameArray.length; i++) {</pre>
         final Button imageButton = new Button(this);
         int imageResourceId = getResources().getIdentifier(imageNameArray[i],
                                                 "drawable", getPackageName());
        Drawable image = this.getResources().getDrawable(imageResourceId);
         imageButton.setBackground(image);
         imageButton.setTag(i);
         int height = getScreenHeight()/5;
         LinearLayout.LayoutParams params = new LinearLayout.LayoutParams(height,
                                                                           height);
         params.setMargins(1, 0, 1, 5);
         imageButton.setLayoutParams(params);
        horizLayout.addView(imageButton);
    }
}
public void startAutoScrolling() {
    //Starts the banner scroller and sets speed
    if (scrollTimer == null) {
         scrollTimer = new Timer();
        final Runnable Timer_Tick = new Runnable() {
             public void run() {
                 moveScrollView();
             }
         };
         scrollerSchedule = new TimerTask() {
```

```
@Override
             public void run() {
                 runOnUiThread(Timer_Tick);
             }
        };
         scrollTimer.schedule(scrollerSchedule, 30, 30);
    }
}
public void moveScrollView() {
    scrollPos = (horizScroll.getScrollX() + 1);
    if (scrollPos >= scrollMax) {
        //Sets the position back to zero
        scrollPos = 0;
        horizScroll.setScrollX(0);
        resetScroll();
    }
    else {
        //Continues with scrolling
        horizScroll.smoothScrollTo(scrollPos, 0);
    }
}
public void resetScroll() {
    //Get max distance and restart scrolling
    getScrollMaxAmount();
    startAutoScrolling();
}
public void getScrollMaxAmount() {
    //Determines width of the array of images
    int width = ((horizLayout.getWidth()/horizScroll.getWidth()-1)*horizScroll.
             getWidth()) + (horizLayout.getWidth() % horizScroll.getWidth());
    scrollMax = width;
}
private int getScreenHeight() {
    //Gets the height of the screen for formatting page elements
    return getResources().getDisplayMetrics().heightPixels;
}
public void toCal(View view) {
    //Opens the calendar view
    if (hasInternet) {
        Intent i = new Intent(this, CalActivity.class);
        startActivity(i);
    }
    else {
         //No Internet disables app functions
        Toast.makeText(this, "No Internet Connection", Toast.LENGTH_LONG).show();
    }
}
```

```
public void toList(View view) {
         //Opens the list view
        if (hasInternet) {
             Intent i = new Intent(this, ListActivity.class);
             startActivity(i);
         }
        else {
             //No Internet disables app functions
             Toast.makeText(this, "No Internet Connection", Toast.LENGTH_LONG).show();
         }
    }
    public void toTwitterFeed(View view) {
         //Opens the twitter view
        if (hasInternet) {
             Intent i = new Intent(this, TwitterFeed.class);
             startActivity(i);
         }
        else {
             //No Internet disables app functions
             Toast.makeText(this, "No Internet Connection", Toast.LENGTH_LONG).show();
        }
    }
}
```

```
package com.alpharettafbla.kalendo;
import java.util.Calendar;
import android.app.Activity;
import android.content.Intent;
import android.graphics.Color;
import android.graphics.Typeface;
import android.os.Bundle;
import android.text.format.DateFormat;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.CalendarView;
import android.widget.CalendarView.OnDateChangeListener;
import android.widget.TextView;
import com.alpharettafbla.kalendo.R;
public class CalActivity extends Activity {
    CalendarView calendar;
    TextView selectedDate;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_cal);
        //Sets up the calendar
        initializeCalendar();
    }
    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        //Creates the menu for app info
        getMenuInflater().inflate(R.menu.main, menu);
        return true;
    }
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        //Opens activity to display app info
        switch (item.getItemId()) {
            case R.id.app info:
                Intent i = new Intent(this, InfoActivity.class);
                startActivity(i);
                break;
        return super.onOptionsItemSelected(item);
```

}

```
public void initializeCalendar() {
    //Prepares the calendar for viewing
    calendar = (CalendarView) findViewById(R.id.calendar view);
    Calendar today = Calendar.getInstance();
    calendar.setDate(today.getTime().getTime(), false, true);
    //Whether to show the week number
    calendar.setShowWeekNumber(false);
    //Sets the first day of the week according to Calendar
    calendar.setFirstDayOfWeek(1);
    //Initializes the date selected on the calendar
    selectedDate = (TextView) findViewById(R.id.selected_date);
    selectedDate.setTextColor(Color.BLACK);
    selectedDate.setTypeface(null, Typeface.BOLD);
    selectedDate.setText(DateFormat.format("MMMM d, yyyy ", calendar.getDate()));
    //Sets the listener to be notified upon selected date change
    calendar.setOnDateChangeListener(new OnDateChangeListener() {
        @Override
         public void onSelectedDayChange(CalendarView view, int year,
                 int month, int day) {
             selectedDate.setText(DateFormat.format("MMMM d, yyyy ",
                                                       calendar.getDate()));
        }
    });
}
public void toDayEvents(View view) {
    //Opens up the specific set of events for the selected date
    Calendar selectDate = Calendar.getInstance();
    selectDate.setTimeInMillis(calendar.getDate());
    //Sends data for the selected date
    Intent i = new Intent(this, DayEvents.class);
    i.putExtra("CalendarDate", selectDate.getTimeInMillis());
    startActivity(i);
}
public void toList(View view) {
    //Opens the list view
    Intent i = new Intent(this, ListActivity.class);
    startActivity(i);
    finish();
}
public void toHome(View view) {
    //Returns to the home page
    Intent i = new Intent(this, MainActivity.class);
    startActivity(i);
    finish();
}
```

```
package com.alpharettafbla.kalendo;
import java.util.ArrayList;
import java.util.Calendar;
import java.util.concurrent.ExecutionException;
import org.json.JSONException;
import org.json.JSONObject;
import android.app.Activity;
import android.content.Intent;
import android.graphics.Color;
import android.graphics.Typeface;
import android.os.Bundle;
import android.text.format.DateFormat;
import android.text.method.ScrollingMovementMethod;
import android.util.Log;
import android.view.Gravity;
import android.view.View;
import android.widget.ImageButton;
import android.widget.LinearLayout;
import android.widget.TextView;
import com.alpharettafbla.kalendo.R;
public class DayEvents extends Activity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity day events);
        //Collects the selected date's information
        Intent intent = getIntent();
        getDayEvents(intent);
        //Formats back button
        initializeBackBtn();
    }
    public void getDayEvents(Intent intent) {
        //Retrieves the selected date as a millisecond value
        long cal = intent.getLongExtra("CalendarDate",
                Calendar.getInstance().getTimeInMillis());
        Calendar headerDate = Calendar.getInstance();
        headerDate.setTimeInMillis(cal);
        //Displays selected date
        initializeDateText(cal, headerDate);
        //Events will be added to this layout
        LinearLayout eventsView = (LinearLayout) findViewById(R.id.event_view);
```

```
RequestCal googleCal = (RequestCal) new RequestCal().execute(calURL);
    try {
         //Saves the returned object as a JSON Object
        JSONObject jsonObj = new JSONObject(googleCal.get());
        ArrayList<EventInfo> allEvents = EventList.analyzeData(jsonObj);
         if (allEvents.size() == 0) {
             TextView noEvents = new TextView(this);
             EventText.noEvents(noEvents, getString(R.string.no selected));
             eventsView.addView(noEvents);
             return;
        }
         //Loops through events list to analyze them individually
         for (EventInfo indexEvent : allEvents) {
             //Event name
             TextView eventHeader = new TextView(this);
             EventText.header(eventHeader, indexEvent);
             eventsView.addView(eventHeader);
             //Event time
             TextView eventTime = new TextView(this);
             EventText.time(eventTime, indexEvent);
             eventsView.addView(eventTime);
             //Event description
             TextView eventDesc = new TextView(this);
             EventText.descrip(eventDesc, indexEvent);
             eventsView.addView(eventDesc);
             //Skips line between events
             TextView spacer = new TextView(this);
             EventText.spacer(new TextView(this));
             eventsView.addView(spacer);
         }
    } catch (JSONException e) {
         Log.e("JSONException", "Error: " + e.toString());
    } catch (ExecutionException e) {
         Log.e("ExecutionException", "Error: " + e.toString());
    } catch (InterruptedException e) {
        Log.e("ExecutionException", "Error: " + e.toString());
    }
}
public void initializeDateText(long cal, Calendar headerDate) {
    //Displays the selected date
    TextView eventText = (TextView) findViewById(R.id.event_text);
    eventText.setMovementMethod(new ScrollingMovementMethod());
    TextView dateView = (TextView) findViewById(R.id.date_view);
    dateView.setGravity(Gravity.CENTER_HORIZONTAL);
```

String calURL = BuildURL.dateURL(cal);

```
dateView.setTextColor(Color.BLACK);
        dateView.setTypeface(null, Typeface.BOLD);
        dateView.setText(DateFormat.format("MMMM d, yyyy ", headerDate));
    }
    public void initializeBackBtn() {
        //Resizes the back button
        ImageButton backBtn = (ImageButton) findViewById(R.id.back_btn);
        int btnHeight = getScreenHeight()/8;
        backBtn.setMinimumHeight(0);
        backBtn.setMinimumWidth(0);
        backBtn.setMaxHeight(btnHeight);
        backBtn.setMaxWidth(btnHeight);
    }
    public int getScreenHeight() {
        //Gets the height of the screen for formatting page elements
        return getResources().getDisplayMetrics().heightPixels;
    }
    public void backToCal(View view) {
        //Closes the event view and returns to calendar
        finish();
    }
}
```

```
********************************** ListActivity.java ***************************
package com.alpharettafbla.kalendo;
import java.util.ArrayList;
import java.util.concurrent.ExecutionException;
import org.json.JSONException;
import org.json.JSONObject;
import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.util.Log;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.LinearLayout;
import android.widget.TextView;
import com.alpharettafbla.kalendo.R;
public class ListActivity extends Activity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_list);
        //Retrieve events up to 3 months in advance
        initializeEventsList();
    }
    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        //Creates the menu for app info
        getMenuInflater().inflate(R.menu.main, menu);
        return true;
    }
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        //Opens activity to display app info
        switch (item.getItemId()) {
             case R.id.app_info:
                 Intent i = new Intent(this, InfoActivity.class);
                 startActivity(i);
                 break;
        return super.onOptionsItemSelected(item);
    }
```

public void initializeEventsList() {

```
//Events will be added to this layout
    LinearLayout listLayout = (LinearLayout) findViewById(R.id.list_events);
    listLayout.setPadding(0, 18, 0, 0);
    String calURL = BuildURL.listURL();
    RequestCal googleCal = (RequestCal) new RequestCal().execute(calURL);
    try {
        //Saves the returned object as a JSON Object
        JSONObject jsonObj = new JSONObject(googleCal.get());
        ArrayList<EventInfo> allEvents = EventList.analyzeData(jsonObj);
        if(allEvents.size() == 0) {
             TextView noEvents = new TextView(this);
             EventText.noEvents(noEvents, getString(R.string.no_upcoming));
             listLayout.addView(noEvents);
             return;
        }
        //Loops through events list to analyze them individually
        for (EventInfo indexEvent : allEvents) {
             //Event name
             TextView eventHeader = new TextView(this);
             EventText.header(eventHeader, indexEvent);
             listLayout.addView(eventHeader);
             //Event time
             TextView eventTime = new TextView(this);
             EventText.dateTime(eventTime, indexEvent);
             listLayout.addView(eventTime);
             //Event description
             TextView eventDesc = new TextView(this);
             EventText.descrip(eventDesc, indexEvent);
             listLayout.addView(eventDesc);
             //Skips line between events
             TextView spacer = new TextView(this);
             EventText.spacer(spacer);
             listLayout.addView(spacer);
        }
    } catch (JSONException e) {
        Log.e("JSONException", "Error: " + e.toString());
    } // catch (JSONException e)
    catch (ExecutionException e) {
        Log.e("ExecutionException", "Error: " + e.toString());
    } catch (InterruptedException e) {
        Log.e("ExecutionException", "Error: " + e.toString());
    }
public void toHome(View view) {
```

}

```
//Returns to the home page
       Intent i = new Intent(this, MainActivity.class);
       startActivity(i);
       finish();
    }
    public void toTwitterFeed(View view) {
       //Opens the twitter view
       Intent i = new Intent(this, TwitterFeed.class);
       startActivity(i);
       finish();
    }
    public void toCal(View view) {
       //Opens the calendar view
       Intent i = new Intent(this, CalActivity.class);
       startActivity(i);
       finish();
    }
}
***********************************
```

```
package com.alpharettafbla.kalendo;
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.ImageButton;
import android.widget.TextView;
import com.alpharettafbla.kalendo.R;
public class InfoActivity extends Activity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_info);
        //Formats the back button
        initializeBackBtn();
        //Displays info text
        infoText();
    }
    public void infoText() {
        //Displays info text
        TextView info = (TextView) findViewById(R.id.info_text);
        info.setText("Developed for the 2015 FBLA National Leadership Conference\n\n");
        info.append("Created by: Katharine Nelson and Suraj Masand\n");
        info.append("School: Alpharetta High School\n");
        info.append("Event: Mobile Application Development\n\n");
        info.append("This app was developed to help Alpharetta High School announce " +
                "upcoming events to the students. It connects to the school's Google " +
                "calendar and displays the events in three formats: a today view " +
                 "showing events for the current day, a list view showing events for " +
                "the next 90 days, and a calendar allowing students to select any date " +
                "and view its events.");
    }
    public void initializeBackBtn() {
        //Resizes the back button
        ImageButton backBtn = (ImageButton) findViewById(R.id.back btn);
        int btnHeight = getScreenHeight()/8;
        backBtn.setMinimumHeight(0);
        backBtn.setMinimumWidth(0);
        backBtn.setMaxHeight(btnHeight);
        backBtn.setMaxWidth(btnHeight);
    }
    public int getScreenHeight() {
        //Gets the height of the screen for formatting page elements
```

```
********************************** TwitterFeed.java ****************************
package com.alpharettafbla.kalendo;
import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.view.MotionEvent;
import android.view.View;
import android.view.View.OnClickListener;
import android.webkit.WebView;
import android.widget.Button;
import android.widget.Spinner;
import com.alpharettafbla.kalendo.R;
public class TwitterFeed extends Activity {
    public static final String TAG = "TwitterFeed";
    private static final String baseURl = "https://twitter.com";
    private static String twitterAcc = "AHSRaiderFBLA";
    private Spinner spinner1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_twitter_feed);
        //Sets up the twitter feed drop-down menu
        addListenerOnButton();
        //Sets spinner to the saved state
        spinnerSavedState();
        //Displays the twitter feed
        initializeTwitter();
    }
    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        //Creates the menu for app info
        getMenuInflater().inflate(R.menu.main, menu);
        return true;
    }
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        //Opens activity to display app info
        switch (item.getItemId()) {
             case R.id.app_info:
                 Intent i = new Intent(this, InfoActivity.class);
                 startActivity(i);
                 break;
```

```
return super.onOptionsItemSelected(item);
}
public void addListenerOnButton() {
    spinner1 = (Spinner) findViewById(R.id.spinner1);
    Button submitBtn = (Button) findViewById(R.id.submit_btn);
    //Waits for new twitter feed selection
    submitBtn.setOnClickListener(new OnClickListener() {
        @Override
         public void onClick(View v) {
             WebView webView = (WebView) findViewById(R.id.timeline_webview);
             twitterAcc = String.valueOf(spinner1.getSelectedItem());
             webView.loadDataWithBaseURL(baseUR1, BuildURL.twitterURL(twitterAcc),
                      "text/html", "UTF-8", null);
        }
    });
}
public void spinnerSavedState() {
    //Sets spinner to the saved value
    spinner1 = (Spinner) findViewById(R.id.spinner1);
    if (twitterAcc.equals("AHSRaiderFBLA"))
         spinner1.setSelection(0);
    else if (twitterAcc.equals("FultonCoSchools"))
         spinner1.setSelection(1);
    else
         spinner1.setSelection(2);
}
public void initializeTwitter() {
    //Must load background color for webView
    loadBackgroundColor();
    WebView webView = (WebView) findViewById(R.id.timeline webview);
    webView.getSettings().setDomStorageEnabled(true);
    webView.getSettings().setJavaScriptEnabled(true);
    //Forces webView to be scrolling but not clickable
    //No links can be chosen but more tweets can be loaded
    webView.setLongClickable(false);
    webView.setOnTouchListener(new View.OnTouchListener() {
        @Override
        public boolean onTouch(View arg0, MotionEvent arg1)
             return arg1.getAction() == MotionEvent.ACTION_UP;
         }
    } );
    //Loads twitter feed
    webView.loadDataWithBaseURL(baseURl, BuildURL.twitterURL(twitterAcc), "text/html",
                                                                     "UTF-8", null);
}
```

```
private void loadBackgroundColor() {
        WebView webView = (WebView) findViewById(R.id.timeline_webview);
         //Sets webView to be transparent
        webView.setBackgroundColor(0);
    }
    public void toList(View view) {
         //Opens the list view
         Intent i = new Intent(this, ListActivity.class);
         startActivity(i);
        finish();
    }
    public void toHome(View view) {
         //Returns to the home page
         Intent i = new Intent(this, MainActivity.class);
         startActivity(i);
        finish();
    }
    public void toCal(View view) {
         //Opens the calendar view
         Intent i = new Intent(this, CalActivity.class);
         startActivity(i);
        finish();
    }
}
```

String tz = timeZone(todayCal);

```
package com.alpharettafbla.kalendo;
import java.text.DecimalFormat;
import java.util.Calendar;
import java.util.TimeZone;
public class BuildURL {
    //School's google calendar id
    private static final String cal_id =
                "b3ugdgfdvqf5ldgns33drkn314%40group.calendar.google.com";
    //API Key to allow API call
    private static final String myApiKey = "AIzaSyA21YKyARNKTxphFz95aYmGv7SQSWnEX3k";
    public static String todayURL() {
        Calendar todayDate = Calendar.getInstance();
        Calendar tomorrowDate = Calendar.getInstance();
        //Sets up max to end of current date
        tomorrowDate.add(Calendar.DATE, 1);
        //Gets time zone info
        String tz = timeZone(todayDate);
        //Limits results based on today
        String minTime = todayDate.get(Calendar.YEAR) + "-"
                + (todayDate.get(Calendar.MONTH) + 1) + "-"
                + todayDate.get(Calendar.DATE) + tz;
        String maxTime = tomorrowDate.get(Calendar.YEAR) + "-"
                + (tomorrowDate.get(Calendar.MONTH) + 1) + "-"
                + tomorrowDate.get(Calendar.DATE) + tz;
        return createBase(minTime, maxTime);
    }
    public static String listURL() {
        Calendar todayCal = Calendar.getInstance();
        Calendar endDateCal = Calendar.getInstance();
        //Sets up max to 90 days in the future
        endDateCal.add(Calendar.DATE, 90);
        //Gets time zone info
```

```
//Limits results to 90 days in the future
    String minTime = todayCal.get(Calendar.YEAR) + "-"
             + (todayCal.get(Calendar.MONTH) + 1) + "-"
             + todayCal.get(Calendar.DATE) + tz;
    String maxTime = endDateCal.get(Calendar.YEAR) + "-"
             + (endDateCal.get(Calendar.MONTH) + 1) + "-"
             + endDateCal.get(Calendar.DATE) + tz;
    return createBase(minTime, maxTime);
}
public static String dateURL(long cal) {
    Calendar startDateCal = Calendar.getInstance();
    Calendar endDateCal = Calendar.getInstance();
    //Determines selected date using parameter (millisecond value)
    startDateCal.setTimeInMillis(cal);
    endDateCal.setTimeInMillis(cal);
    //Sets up max to end of selected date
    endDateCal.add(Calendar.DATE, 1);
    //Gets time zone info
    String tz = timeZone(startDateCal);
    //Limits results based on selected date
    String minTime = startDateCal.get(Calendar.YEAR) + "-"
             + (startDateCal.get(Calendar.MONTH) + 1) + "-"
             + startDateCal.get(Calendar.DATE) + tz;
    String maxTime = endDateCal.get(Calendar.YEAR) + "-"
             + (endDateCal.get(Calendar.MONTH) + 1) + "-"
             + endDateCal.get(Calendar.DATE) + tz;
    return createBase(minTime, maxTime);
}
public static String twitterURL(String twitterAcc) {
    if (twitterAcc.equals("AHSRaiderFBLA"))
        return "<a unselectable=\"on\" class=\"twitter-timeline\"" +
             "data-dnt=\"true\" href=\"https://twitter.com/AHSRaiderFBLA\"" +
             " data-widget-id=\"594912738868129792\">Tweets by @AHSRaiderFBLA</a>" +
             "<script>!function(d,s,id){var js,fjs=d.getElementsByTagName(s)[0]," +
             "p=/^http:/.test(d.location)?'http':'https';if(!d.getElementById(id))" +
             "{js=d.createElement(s);js.id=id;js.src=p+\"://platform.twitter.com/" +
             widgets.js\";fjs.parentNode.insertBefore(js,fjs);}}(document," +
             "\"script\",\"twitter-wjs\");</script>";
    else if (twitterAcc.equals("FultonCoSchools"))
        return "<a unselectable=\"on\" class=\"twitter-timeline\"" +
             "data-dnt=\"true\" href=\"https://twitter.com/FultonCoSchools\"" +
             " data-widget-id=\"594912738868129792\">Tweets by @FultonCoSchools</a>" +
             "<script>!function(d,s,id){var js,fjs=d.getElementsByTagName(s)[0]," +
             "p=/^http:/.test(d.location)?'http':'https';if(!d.getElementById(id))" +
             "{js=d.createElement(s);js.id=id;js.src=p+\"://platform.twitter.com/" +
             widgets.js\";fjs.parentNode.insertBefore(js,fjs);}}(document," +
             "\"script\",\"twitter-wjs\");</script>";
```

```
else
             return "<a unselectable=\"on\" class=\"twitter-timeline\"" +
                 "data-dnt=\"true\" href=\"https://twitter.com/RaiderSport\"" +
                 " data-widget-id=\"594912738868129792\">Tweets by @RaiderSport</a>" +
                 "<script>!function(d,s,id){var js,fjs=d.getElementsByTagName(s)[0]," +
                 "p=/^http:/.test(d.location)?'http':'https';if(!d.getElementById(id))" +
                 "{js=d.createElement(s);js.id=id;js.src=p+\"://platform.twitter.com/" +
                 widgets.js\";fjs.parentNode.insertBefore(js,fjs);}}(document," +
                 "\"script\",\"twitter-wjs\");</script>";
    }
    private static String timeZone(Calendar cal) {
        //Gets the user's time zone
        int tz = TimeZone.getDefault().getOffset(cal.getTimeInMillis());
        int offsetHours = tz/3600000;
        int offsetMinutes = (tz%3600000)/60000;
        String timeZone = "T00%3A00%3A00" +
                 (new DecimalFormat("00").format(offsetHours)) + ":"
                 + (new DecimalFormat("00").format(offsetMinutes));
        return timeZone;
    }
    private static String createBase(String min, String max) {
        //Calendar URL with all parameters filled in
        return "https://www.googleapis.com/calendar/v3/calendars/" +
             cal_id + "/events?timeMin=" + min + "&timeMax=" + max +
             "&max-results=100&singleEvents=true&orderBy=startTime&key=" + myApiKey;
    }
}
```

```
******************************** CheckNetwork.java ****************************
package com.alpharettafbla.kalendo;
import android.content.Context;
import android.net.ConnectivityManager;
import android.net.NetworkInfo;
import android.util.Log;
public class CheckNetwork {
    private static final String TAG = CheckNetwork.class.getSimpleName();
    public static boolean isInternetAvailable(Context context) {
        //Checks for available Internet connection
        NetworkInfo info = (NetworkInfo) ((ConnectivityManager) context.
             getSystemService(Context.CONNECTIVITY_SERVICE)).getActiveNetworkInfo();
        if (info == null) {
             Log.d(TAG, "no internet connection");
             return false;
        else {
            if(info.isConnected()) {
                Log.d(TAG," internet connection available...");
                return true;
            }
            else {
                Log.d(TAG," internet connection");
                return true;
            }
        }
    }
}
```

```
package com.alpharettafbla.kalendo;
import java.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.Date;
import java.util.Locale;
import org.json.JSONException;
import org.json.JSONObject;
public class EventInfo {
    private String name;
    private String descrip;
    private Date startDate;
    private Date endDate;
    private String startTime;
    private String endTime;
    private boolean isAllDay = false;
    SimpleDateFormat forDate = new SimpleDateFormat("yyyy-MM-dd", Locale.getDefault());
    SimpleDateFormat forDateTime = new SimpleDateFormat("yyyy-MM-dd'T'HH:mm:ssZ");
    public EventInfo (JSONObject singleEvent) {
        //Will store the name, description, and timings for each event
        try {
            //Gets event name
            name = singleEvent.getString("summary");
            //Checks if description is available
            if (singleEvent.has("description"))
                descrip = singleEvent.getString("description");
            else
                descrip = "There is no description for this event";
            //Fetches timings of the event
            if (singleEvent.getJSONObject("start").has("date")) {
                //If the event has a start date then it is an all-day event
                isAllDay = true;
                String s = singleEvent.getJSONObject("start").getString("date");
                startDate = forDate.parse(s);
            }
            else {
                //Else, there must be a start dateTime and end dateTime
                startTime = singleEvent.getJSONObject("start").getString("dateTime");
                startDate = forDateTime.parse(startTime);
                endTime = singleEvent.getJSONObject("end").getString("dateTime");
                endDate = forDateTime.parse(endTime);
            }
        } catch (JSONException | ParseException e) {
            e.printStackTrace();
```

```
}
}
public String getName() {
    return name;
}
public Date getStartDate() {
    return startDate;
}
public Date getEndDate() {
    return endDate;
}
public String getStartTime() {
    return startTime;
}
public String getEndTime() {
    return endTime;
}
public String getDescrip() {
    return descrip;
}
public boolean isAllDay() {
    return isAllDay;
}
```

}

```
package com.alpharettafbla.kalendo;
import java.util.ArrayList;
import org.json.JSONArray;
import org.json.JSONException;
import org.json.JSONObject;
public class EventList {
   public static ArrayList<EventInfo> analyzeData(JSONObject jsonObj) {
       ArrayList<EventInfo> listOfEventInfo = new ArrayList<EventInfo>();
       try {
           //Get the array of events
           JSONArray jArray = jsonObj.getJSONArray("items");
           //Get the name, description, start time, and end time for each event
           for (int i = 0; i < jArray.length(); i++) {</pre>
              JSONObject jObject = jArray.getJSONObject(i);
              listOfEventInfo.add(new EventInfo(jObject));
           }
       } catch (JSONException e) {
           e.printStackTrace();
       }
       return listOfEventInfo;
   }
}
**************************************
```

```
package com.alpharettafbla.kalendo;
import java.text.SimpleDateFormat;
import java.util.Locale;
import android.graphics.Color;
import android.graphics.Typeface;
import android.util.TypedValue;
import android.view.Gravity;
import android.widget.TextView;
public class EventText {
    private static SimpleDateFormat displayDate = new SimpleDateFormat("MMMM d, yyyy",
            Locale.getDefault());
    private static SimpleDateFormat displayTime = new SimpleDateFormat("h:mm a",
            Locale.getDefault());
    private static int bgCol = Color.argb(255, 132, 218, 209);
    public static void header(TextView textView, EventInfo indexEvent) {
        //Formats the text for the event name
        textView.setBackgroundColor(bgCol);
        textView.setTextSize(TypedValue.COMPLEX UNIT SP, 24);
        textView.setTypeface(null, Typeface.BOLD);
        textView.setGravity(Gravity.CENTER);
        textView.setPadding(5, 5, 5, 2);
        textView.setText(indexEvent.getName());
    }
    public static void time(TextView textView, EventInfo indexEvent) {
        //Formats the text for the event time
        textView.setBackgroundColor(bgCol);
        textView.setTextSize(TypedValue.COMPLEX_UNIT_SP, 18);
        textView.setTypeface(null, Typeface.BOLD);
        textView.setGravity(Gravity.CENTER);
        textView.setPadding(5, 2, 5, 2);
        if (indexEvent.isAllDay())
            textView.setText("All-day event");
        else
            textView.setText(displayTime.format(indexEvent.getStartDate()) + " - "
                     + displayTime.format(indexEvent.getEndDate()));
    }
    public static void dateTime(TextView textView, EventInfo indexEvent) {
        //Formats the text for the event date and time
        textView.setBackgroundColor(bgCol);
        textView.setTextSize(TypedValue.COMPLEX_UNIT_SP, 18);
        textView.setTypeface(null, Typeface.BOLD);
        textView.setGravity(Gravity.CENTER);
        textView.setPadding(5, 2, 5, 2);
        if (indexEvent.isAllDay())
```

```
textView.setText(displayDate.format(indexEvent.getStartDate())
                      + "\nAll-day event");
        else
             textView.setText(displayDate.format(indexEvent.getStartDate()) + "\n"
                      + displayTime.format(indexEvent.getStartDate()) + " - "
                      + displayTime.format(indexEvent.getEndDate()));
    }
    public static void descrip(TextView textView, EventInfo indexEvent) {
        //Formats the text for the event description
        textView.setBackgroundColor(bgCol);
        textView.setTextSize(TypedValue.COMPLEX UNIT SP, 18);
        textView.setTypeface(null, Typeface.ITALIC);
        textView.setGravity(Gravity.CENTER);
        textView.setPadding(5, 2, 5, 10);
        textView.setText(indexEvent.getDescrip());
    }
    public static void noEvents(TextView textView, String noVal) {
        //Text to show if there are no events
        textView.setTextSize(TypedValue.COMPLEX_UNIT_SP, 28);
        textView.setTextColor(Color.BLACK);
        textView.setGravity(Gravity.CENTER);
        textView.setText(noVal);
    }
    public static void spacer(TextView spacer) {
        //Spaces between the events
        spacer.setBackgroundColor(Color.TRANSPARENT);
        spacer.setTextSize(TypedValue.COMPLEX UNIT SP, 18);
    }
}
```

```
package com.alpharettafbla.kalendo;
import java.io.ByteArrayOutputStream;
import java.io.IOException;
import org.apache.http.HttpResponse;
import org.apache.http.HttpStatus;
import org.apache.http.StatusLine;
import org.apache.http.client.ClientProtocolException;
import org.apache.http.client.HttpClient;
import org.apache.http.client.methods.HttpGet;
import org.apache.http.impl.client.DefaultHttpClient;
import android.os.AsyncTask;
class RequestCal extends AsyncTask<String, String> {
   @Override
   protected String doInBackground(String... uri) {
       //Makes connections with the API
       HttpClient client = new DefaultHttpClient();
       HttpResponse response;
       String responseString = null;
       try {
           response = client.execute(new HttpGet(uri[0]));
           StatusLine status = response.getStatusLine();
           if (status.getStatusCode() == HttpStatus.SC OK) {
               ByteArrayOutputStream out = new ByteArrayOutputStream();
               response.getEntity().writeTo(out);
               responseString = out.toString();
               out.close();
           }
           else {
               //Closes the connection
               response.getEntity().getContent().close();
               throw new IOException(status.getReasonPhrase());
       } catch (ClientProtocolException e) {
           e.printStackTrace();
       } catch (IOException e) {
           e.printStackTrace();
       }
       return responseString;
   }
   @Override
   protected void onPostExecute(String result) {
       super.onPostExecute(result);
   }
}
```

LAYOUT XML FILES

```
******************************** activity main.xml ****************************
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
   android:id="@+id/rel_layout"
   android:layout_width="fill_parent"
   android:layout height="fill parent"
   android:background="@drawable/bg">
    <HorizontalScrollView</pre>
        android:id="@+id/horiz_scroll"
        android:layout_width="match_parent"
        android:layout height="wrap content"
        android:fadingEdge="none">
        <LinearLayout</pre>
            android:id="@+id/horiz layout"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:background="@android:color/transparent"
            android:gravity="center vertical"
            android:orientation="horizontal"
            android:paddingBottom="5dip"
            android:paddingTop="5dip">
        </LinearLayout>
   </HorizontalScrollView>
    <ScrollView
        android:id="@+id/today scroll"
        android:layout_width="match_parent"
        android:layout height="wrap content"
        android:layout_below="@id/horiz_scroll"
        android:layout_above="@id/bottom_bar"
        android:scrollbars="vertical">
        <LinearLayout</pre>
            android:id="@+id/today_layout"
            android:layout width="match parent"
            android:layout_height="wrap_content"
            android:gravity="center"
            android:orientation="vertical">
            <TextView
                android:id="@+id/today_view"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:layout_gravity="center"
                android:textColor="#FFFFFF"
```

```
android:textSize="24sp"/>
    </LinearLayout>
</ScrollView>
<LinearLayout
    android:id="@+id/bottom_bar"
    android:layout_width="wrap_content"
    android:layout height="wrap content"
    android:layout alignParentBottom="true"
    android:layout_gravity="bottom"
    android:background="#343434"
    android:orientation="horizontal">
    <ImageButton</pre>
        android:id="@+id/list btn"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout gravity="start|bottom"
        android:layout_weight="1"
        android:adjustViewBounds="true"
        android:contentDescription="@string/list_view"
        android:cropToPadding="false"
        android:onClick="toList"
        android:padding="2dp"
        android:scaleType="fitXY"
        android:src="@drawable/list"/>
    <ImageButton</pre>
        android:id="@+id/home btn"
        android:layout width="0dp"
        android:layout height="wrap content"
        android:layout gravity="bottom|center horizontal"
        android:layout_weight="1"
        android:adjustViewBounds="true"
        android:contentDescription="@string/home view"
        android:cropToPadding="false"
        android:padding="2dp"
        android:scaleType="fitXY"
        android:src="@drawable/home_on"/>
    <ImageButton</pre>
        android:id="@+id/twitter btn"
        android:layout width="0dp"
        android:layout_height="wrap_content"
        android:layout gravity="end|bottom"
        android:layout_weight="1"
        android:adjustViewBounds="true"
        android:contentDescription="@string/twitter view"
        android:cropToPadding="false"
        android:onClick="toTwitterFeed"
        android:padding="2dp"
        android:scaleType="fitXY"
        android:src="@drawable/twitter"/>
```

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
   android:id="@+id/rel layout"
   android:layout width="match parent"
   android:layout height="fill parent"
   android:background="#EEEEEE">
   <TextView
       android:id="@+id/selected date"
       android:layout_width="wrap_content"
       android:layout height="wrap content"
       android:layout_alignBottom="@+id/show_events"
       android:layout_alignLeft="@+id/calendar_view"
       android:layout_alignStart="@id/calendar_view"
       android:layout alignTop="@id/show events"
       android:layout_toLeftOf="@id/show_events"
       android:layout_toStartOf="@id/show_events"
       android:gravity="center"
       android:padding="5dp"
       android:textAppearance="?android:attr/textAppearanceMedium"
       android:textColor="#ffffff"
       android:textSize="20sp"/>
   <Button
       android:id="@id/show events"
       android:layout_width="wrap_content"
       android:layout_height="wrap_content"
       android:layout alignParentEnd="true"
       android:layout_alignParentRight="true"
       android:layout_alignParentTop="true"
       android:background="@drawable/mybutton"
       android:onClick="toDayEvents"
       android:padding="10dp"
       android:text="@string/show_events"
       android:textColor="#000000"/>
   <View
       android:id="@+id/line"
       android:layout_width="fill_parent"
       android:layout_height="1dp"
       android:layout_below="@id/selected_date"
       android:padding="2dp"
       android:background="#000000"/>
   <CalendarView
       android:id="@id/calendar_view"
       android:layout_width="match_parent"
       android:layout height="match parent"
       android:layout_above="@+id/bottom_bar"
       android:layout_alignParentLeft="true"
       android:layout alignParentStart="true"
       android:layout_below="@id/line"
       android:background="#EEEEEE"
       android:selectedDateVerticalBar="@drawable/vertical bar"
       android:selectedWeekBackgroundColor="#5BCEC1"
```

```
android:weekSeparatorLineColor="#1EBBAA"/>
<LinearLayout
    android:id="@id/bottom bar"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout alignParentBottom="true"
    android:layout_gravity="bottom"
    android:background="#343434"
    android:orientation="horizontal">
    <ImageButton</pre>
        android:id="@+id/list btn"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_gravity="start|bottom"
        android:layout weight="1"
        android:adjustViewBounds="true"
        android:contentDescription="@string/list_view"
        android:cropToPadding="false"
        android:onClick="toList"
        android:padding="2dp"
        android:scaleType="fitXY"
        android:src="@drawable/list"/>
    <ImageButton</pre>
        android:id="@+id/home btn"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout gravity="bottom|center horizontal"
        android:layout weight="1"
        android:adjustViewBounds="true"
        android:contentDescription="@string/home view"
        android:cropToPadding="false"
        android:onClick="toHome"
        android:padding="2dp"
        android:scaleType="fitXY"
        android:src="@drawable/home"/>
    <ImageButton</pre>
        android:id="@+id/twitter_btn"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout gravity="end|bottom"
        android:layout weight="1"
        android:adjustViewBounds="true"
        android:contentDescription="@string/twitter view"
        android:cropToPadding="false"
        android:onClick="toTwitterFeed"
        android:padding="2dp"
        android:scaleType="fitXY"
        android:src="@drawable/twitter"/>
    <ImageButton</pre>
        android:id="@+id/cal_btn"
        android:layout_width="0dp"
```

android:layout_height="wrap_content"

```
android:layout_gravity="end|bottom"
android:layout_weight="1"
android:adjustViewBounds="true"
android:contentDescription="@string/cal_view"
android:cropToPadding="false"
android:padding="2dp"
android:scaleType="fitXY"
android:src="@drawable/cal_on"/>
</LinearLayout>
</RelativeLayout>
```

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
   xmlns:tools="http://schemas.android.com/tools"
   tools:context="com.example.api restcalls.DayEvents"
   android:id="@+id/rel layout"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   android:background="@drawable/bg">
   <TextView
       android:id="@+id/date view"
       android:layout_width="fill_parent"
       android:layout_height="wrap_content"
       android:layout_alignParentTop="true"
       android:padding="10dp"
       android:textAppearance="?android:attr/textAppearanceLarge"
       android:textSize="28sp"/>
   <ScrollView
       android:id="@+id/event_scroll"
       android:layout width="fill parent"
       android:layout height="wrap content"
       android:layout above="@+id/back btn"
       android:layout_below="@id/date_view"
       android:background="@android:color/transparent"
       android:scrollbars="vertical">
       <LinearLayout</pre>
           android:id="@+id/event view"
           android:layout width="match parent"
           android:layout height="wrap content"
           android:orientation="vertical">
           <TextView
               android:id="@+id/event_text"
               android:layout_width="match_parent"
               android:layout height="wrap content"
               android:maxLines="10000"
               android:scrollbars="vertical"/>
       </LinearLayout>
   </ScrollView>
   <ImageButton</pre>
       android:id="@id/back_btn"
       android:layout_width="wrap_content"
       android:layout height="wrap content"
       android:layout_alignParentBottom="true"
       android:layout_gravity="start|bottom"
       android:adjustViewBounds="true"
       android:background="@android:color/transparent"
       android:contentDescription="@string/back"
       android:cropToPadding="false"
       android:onClick="backToCal"
```

android:paddingLeft="1dp"
android:paddingRight="1dp"
android:paddingBottom="8dp"
android:paddingTop="1dp"
android:scaleType="fitXY"
android:src="@drawable/back"/>

</RelativeLayout>

```
******************************** activity_info.xml ****************************
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
   xmlns:tools="http://schemas.android.com/tools"
   tools:context="com.example.api restcalls.DayEvents"
   android:id="@+id/rel layout"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
    android:background="@drawable/bg">
    <ScrollView
        android:id="@+id/info_scroll"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:layout above="@+id/back btn"
        android:background="@android:color/transparent"
        android:gravity="top"
        android:scrollbars="vertical">
        <LinearLayout</pre>
            android:id="@+id/info_view"
            android:layout width="match parent"
            android:layout height="wrap content"
            android:orientation="vertical"
            android:padding="10dp">
            <TextView
                android:id="@+id/info_text"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:maxLines="10000"
                android:scrollbars="vertical"
                android:textColor="#000000"
                android:textSize="20sp"/>
        </LinearLayout>
   </ScrollView>
    <ImageButton</pre>
        android:id="@id/back_btn"
        android:layout width="wrap content"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout gravity="start|bottom"
        android:adjustViewBounds="true"
        android:background="@android:color/transparent"
        android:contentDescription="@string/back"
        android:cropToPadding="false"
        android:onClick="goBack"
        android:paddingLeft="1dp"
        android:paddingRight="1dp"
        android:paddingBottom="8dp"
        android:paddingTop="1dp"
        android:scaleType="fitXY"
```

android:src="@drawable/back"/>

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
   android:id="@+id/rel layout"
   android:layout width="fill parent"
   android:layout height="fill parent"
   android:background="@drawable/bg">
   <ScrollView
       android:layout width="wrap content"
       android:layout_height="fill_parent"
       android:layout above="@+id/bottom bar"
       android:layout_alignParentLeft="true"
       android:layout_alignParentStart="true"
       android:layout_alignParentEnd="true"
       android:layout alignParentRight="true"
       android:layout_alignParentTop="true"
       android:scrollbarAlwaysDrawVerticalTrack="true"
       android:scrollbars="vertical"
       android:visibility="visible">
       <LinearLayout</pre>
           android:id="@+id/list events"
           android:layout width="fill parent"
           android:layout_height="wrap_content"
           android:orientation="vertical">
       </LinearLayout>
   </ScrollView>
   <LinearLayout
       android:id="@id/bottom bar"
       android:layout_width="wrap_content"
       android:layout_height="wrap_content"
       android:layout_alignParentBottom="true"
       android:layout_gravity="bottom"
       android:background="#343434"
       android:orientation="horizontal">
       <ImageButton</pre>
           android:id="@+id/list_btn"
           android:layout width="0dp"
           android:layout_height="wrap_content"
           android:layout_gravity="start|bottom"
           android:layout weight="1"
           android:adjustViewBounds="true"
           android:contentDescription="@string/list_view"
           android:cropToPadding="false"
           android:padding="2dp"
           android:scaleType="fitXY"
           android:src="@drawable/list on"/>
       <ImageButton</pre>
           android:id="@+id/home_btn"
           android:layout_width="0dp"
```

```
android:layout_height="wrap_content"
            android:layout_gravity="bottom|center_horizontal"
            android:layout weight="1"
            android:adjustViewBounds="true"
            android:contentDescription="@string/home_view"
            android:cropToPadding="false"
            android:onClick="toHome"
            android:padding="2dp"
            android:scaleType="fitXY"
            android:src="@drawable/home"/>
        <ImageButton</pre>
            android:id="@+id/twitter btn"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_gravity="end|bottom"
            android:layout weight="1"
            android:adjustViewBounds="true"
            android:contentDescription="@string/twitter_view"
            android:cropToPadding="false"
            android:onClick="toTwitterFeed"
            android:padding="2dp"
            android:scaleType="fitXY"
            android:src="@drawable/twitter"/>
        <ImageButton</pre>
            android:id="@+id/cal btn"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout gravity="end|bottom"
            android:layout weight="1"
            android:adjustViewBounds="true"
            android:contentDescription="@string/cal view"
            android:cropToPadding="false"
            android:onClick="toCal"
            android:padding="2dp"
            android:scaleType="fitXY"
            android:src="@drawable/cal"/>
   </LinearLayout>
</RelativeLayout>
```

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
   xmlns:tools="http://schemas.android.com/tools"
   tools:context=".TwitterFeed"
   android:id="@+id/rel layout"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   android:background="@drawable/bg">
  <LinearLayout
      android:id="@+id/twitter options"
      android:layout_width="match_parent"
      android:layout height="wrap content"
      android:orientation="horizontal"
      android:padding="2dp">
        <Spinner
           android:id="@+id/spinner1"
           android:layout_width="0dp"
           android:layout_height="fill_parent"
           android:layout weight="1"
           android:entries="@array/twitters"
           android:gravity="start"
           android:popupBackground="#ffffff"
           android:prompt="@string/twitter prompt"
           android:spinnerMode="dialog"/>
        <Button
           android:id="@+id/submit btn"
           android:layout_width="wrap_content"
           android:layout height="wrap content"
           android:background="@drawable/mybutton"
           android:onClick="updateTwitter"
           android:padding="10dp"
           android:text="@string/submit"/>
    </LinearLayout>
   <WebView
       android:id="@+id/timeline_webview"
       android:layout_width="fill_parent"
       android:layout_height="wrap_content"
       android:layout below="@id/twitter options"
       android:layout_above="@id/bottom_bar"/>
    <LinearLayout</pre>
        android:id="@+id/bottom bar"
        android:layout_width="wrap_content"
        android:layout height="wrap content"
        android:layout alignParentBottom="true"
        android:layout_gravity="bottom"
        android:background="#343434"
        android:orientation="horizontal">
       <ImageButton</pre>
           android:id="@+id/list btn"
```

```
android:layout width="0dp"
            android:layout_height="wrap_content"
            android:layout gravity="start|bottom"
            android:layout weight="1"
            android:adjustViewBounds="true"
            android:contentDescription="@string/list_view"
            android:cropToPadding="false"
            android:onClick="toList"
            android:padding="2dp"
            android:scaleType="fitXY"
            android:src="@drawable/list"/>
        <ImageButton</pre>
            android:id="@+id/home btn"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_gravity="bottom|center_horizontal"
            android:layout_weight="1"
            android:adjustViewBounds="true"
            android:contentDescription="@string/home view"
            android:cropToPadding="false"
            android:onClick="toHome"
            android:padding="2dp"
            android:scaleType="fitXY"
            android:src="@drawable/home"/>
        <ImageButton</pre>
            android:id="@+id/twitter_btn"
            android:layout_width="0dp"
            android:layout height="wrap content"
            android:layout_gravity="end|bottom"
            android:layout_weight="1"
            android:adjustViewBounds="true"
            android:contentDescription="@string/twitter view"
            android:cropToPadding="false"
            android:padding="2dp"
            android:scaleType="fitXY"
            android:src="@drawable/twitter on"/>
        <ImageButton</pre>
            android:id="@+id/cal_btn"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout gravity="end|bottom"
            android:layout weight="1"
            android:adjustViewBounds="true"
            android:contentDescription="@string/cal view"
            android:cropToPadding="false"
            android:onClick="toCal"
            android:padding="2dp"
            android:scaleType="fitXY"
            android:src="@drawable/cal"/>
    </LinearLayout>
</RelativeLayout>
```

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
   <string name="app_name">Kalendo</string>
   <string name="action_settings">Settings</string>
   <string name="app info">About Kalendo</string>
   <string name="list view">List View</string>
   <string name="cal_view">Calendar View</string>
   <string name="home view">Home View</string>
   <string name="twitter_view">Twitter View</string>
   <string name="see_twitter">View Twitter Feed</string>
   <string name="title_activity_cal">Calendar View</string>
   <string name="title_events">Events For Selected Day</string>
   <string name="title_activity_list">Upcoming Events</string>
   <string name="no_today">There are no events for today.
   <string name="no selected">There are no events for the selected day.</string>
   <string name="no_upcoming">There are no upcoming events.</string>
   <string name="show_events">Show Events</string>
   <string name="back">Back</string>
   <string name="submit">Update Twitter</string>
   <string name="twitter prompt">Choose a Twitter Feed to View</string>
   <string-array name="twitters">
       <item>AHSRaiderFBLA</item>
       <item>FultonCoSchools</item>
       <item>RaiderSport</item>
   </string-array>
</resources>
***********************************
```

```
<resources>
   <style name="AppBaseTheme" parent="Theme.AppCompat.Light">
   </style>
   <style name="AppTheme" parent="AppBaseTheme">
      <item name="android:actionBarStyle">@style/GrayActionBar</item>
   </style>
   <style name="GrayActionBar" parent="@android:style/Widget.Holo.Light.ActionBar">
      <item name="android:titleTextStyle">@style/TitleBarTextColor</item>
      <item name="android:background">#343434</item>
   </style>
   <style name="TitleBarTextColor"</pre>
             parent="@style/TextAppearance.AppCompat.Widget.ActionBar.Title">
      <item name="android:textColor">#FFFFFF</item>
   </style>
</resources>
```

```
<?xml version="1.0" encoding="utf-8"?>
<!DOCTYPE xml>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
   package="com.alpharettafbla.kalendo"
   android:versionCode="1"
   android:versionName="1.0" >
   <uses-sdk
       android:minSdkVersion="17"
       android:targetSdkVersion="22" />
   <uses-permission android:name="android.permission.INTERNET" />
    <uses-permission android:name="android.permission.ACCESS_NETWORK_STATE"/>
    <uses-permission android:name="android.permission.ACCESS_WIFI_STATE"/>
   <application
       android:allowBackup="true"
       android:icon="@drawable/ic_launcher"
       android:label="@string/app name"
       android:theme="@style/AppTheme"
       android:supportsRtl="false">
       <activity
           android:name="com.alpharettafbla.kalendo.MainActivity"
           android:configChanges="orientation"
           android:label="@string/app name"
           android:screenOrientation="portrait" >
           <intent-filter>
               <action android:name="android.intent.action.MAIN" />
               <category android:name="android.intent.category.LAUNCHER" />
           </intent-filter>
       </activity>
       <activity
           android:name="com.alpharettafbla.kalendo.TwitterFeed"
           android:configChanges="orientation"
           android:label="@string/twitter view"
           android:screenOrientation="portrait" >
       </activity>
       <activity
           android:name="com.alpharettafbla.kalendo.CalActivity"
           android:configChanges="orientation"
           android:label="@string/title_activity_cal"
           android:screenOrientation="portrait" >
       </activity>
       <activity
           android:name="com.alpharettafbla.kalendo.ListActivity"
           android:configChanges="orientation"
           android:label="@string/title_activity_list"
           android:screenOrientation="portrait" >
```

```
</activity>
       <activity
           android:name="com.alpharettafbla.kalendo.DayEvents"
          android:configChanges="orientation"
           android:label="@string/title_events"
          android:screenOrientation="portrait" >
       </activity>
       <activity
           android:name="com.alpharettafbla.kalendo.InfoActivity"
           android:configChanges="orientation"
          android:label="@string/app_info"
          android:screenOrientation="portrait" >
       </activity>
   </application>
</manifest>
************************************
```