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Notes for Professionals

Chapter 28: Creating Custom Views

Section 28.1: Creating Custom Views

If you need a completely customized view, you'll need to subclass View (the superclass of all A… provide your custom sizing (onMeasure(...)) and drawing (onDraw(...)) methods:

1. **Create your custom view skeleton:** this is basically the same for every custom view. … skeleton for a custom view that can draw a smiley, called SmileyView:

```
public class SmileyView extends View {
    private Paint mCirclePaint;
    private Paint mEyeAndMouthPaint;

    private float mCenterX;
    private float mCenterY;
    private float mRadius;
    private RectF mArcBounds = new RectF();

    public SmileyView(Context context) {
        this(context, null, 0);
    }

    public SmileyView(Context context, AttributeSet attrs) {
        this(context, attrs, 0);
    }

    public SmileyView(Context context, AttributeSet attrs, int de
        super(context, attrs, defStyleAttr);
        initPaints();
    }

    private void initPaints() {/* ... */}

    @Override
    protected void onMeasure(int widthMeasureSpec, int heightM

    @Override
    protected void onDraw(Canvas canvas) {/* ... */}
}
```

2. **Initialize your paints:** the Paint objects are the brushes of your virtu… objects are rendered (e.g. color, fill and stroke style, etc.). Here we cre… for the circle and one black stroke paint for the eyes and the mouth:

```
private void initPaints() {
    mCirclePaint = new Paint(Paint.ANTI_ALIAS_FLAG);
    mCirclePaint.setStyle(Paint.Style.FILL);
    mCirclePaint.setColor(Color.YELLOW);
    mEyeAndMouthPaint = new Paint(Paint.ANTI_ALIAS_FLAG);
    mEyeAndMouthPaint.setStyle(Paint.Style.STROKE);
    mEyeAndMouthPaint.setStrokeWidth(16 * getResources().getD
    mEyeAndMouthPaint.setStrokeCap(Paint.Cap.ROUND);
    mEyeAndMouthPaint.setColor(Color.BLACK);
}
```

3. **Implement your own onMeasure(...) method:** this is required so that the parent layouts (e.g.

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Chapter 91: Menu

Parameter	Description
inflate(int menuRes, Menu menu)	Inflate a menu hierarchy from the specified XML resource.
getMenuInflater ()	Returns a MenuInflater with this context.
onCreateOptionsMenu (Menu menu)	Initialize the contents of the Activity's standard options menu. You should place your menu items in to menu.
onOptionsItemSelected (MenuItem item)	This method is called whenever an item in your options menu is selected

Section 91.1: Options menu with dividers

In Android there is a default options menu, which can take a number of options. If a larger number of options needs to be displayed, then it makes sense to group those options in order to maintain clarity. Options can be grouped by putting dividers (i.e. horizontal lines) between them. In order to allow for dividers, the following theme can be used:

```
<style name="AppTheme" parent="Theme.AppCompat.Light.DarkActionBar">
    <!-- Customize your theme here. -->
    <item name="colorPrimary">@color/colorPrimary</item>
    <item name="colorPrimaryDark">@color/colorPrimaryDark</item>
    <item name="colorAccent">@color/colorAccent</item>
    <item name="android:dropDownListViewStyle">@style/PopupMenuListView</item>
</style>
<style name="PopupMenuListView" parent="@style/Widget.AppCompat.ListView.DropDown">
    <item name="android:divider">@color/black</item>
    <item name="android:dividerHeight">1dp</item>
</style>
```

By changing the theme, dividers can be added to a menu.

Section 91.2: Apply custom font to Menu

```
public static void applyFontToMenu(Menu m, Context mContext){
    for(int i=0;i<m.size();i++) {
        applyFontToMenuItem(m.getItem(i),mContext);
    }
}
public static void applyFontToMenuItem(MenuItem mi, Context mContext) {
    if(mi.hasSubMenu())
        for(int i=0;i<mi.getSubMenu().size();i++) {
            applyFontToMenuItem(mi.getSubMenu().getItem(i),mContext);
        }
    Typeface font = Typeface.createFromAsset(mContext.getAssets(), "fonts/yourCustomFont.ttf"
    SpannableString mNewTitle = new SpannableString(mi.getTitle());
    mNewTitle.setSpan(new CustomTypefaceSpan("", font, mContext), 0, mNewTitle.length(),
Spannable.SPAN_INCLUSIVE_INCLUSIVE);
    mi.setTitle(mNewTitle);
}
```

and then in the Activity:

```
@Override
public boolean onCreateOptionsMenu(Menu menu) {
    getMenuInflater().inflate(R.menu.main, menu);
    applyFontToMenu(menu,this);
```

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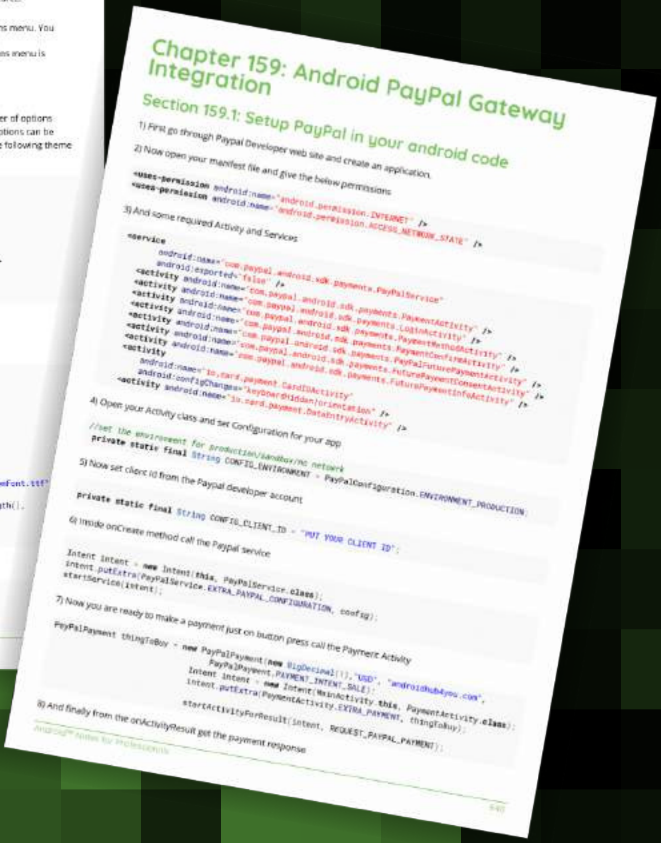
Chapter 159: Android PayPal Gateway Integration

Section 159.1: Setup PayPal in your android code

1) First go through Paypal Developer web site and create an application.

2) Now open your manifest file and give the below permissions

```
<uses-permission android:name="android.permission.INTERNET" />
<uses-permission android:name="android.permission.ACCESS_NETWORK_STATE" />
```

3) And some required Activity and Services

```
<service
    android:name="com.paypal.android.sdk.payments.PayPalService"
    android:exported="false" />
<activity android:name="com.paypal.android.sdk.payments.PaymentActivity" />
<activity android:name="com.paypal.android.sdk.payments.LoginActivity" />
<activity android:name="com.paypal.android.sdk.payments.PaymentMethodActivity" />
<activity android:name="com.paypal.android.sdk.payments.PaymentConfirmActivity" />
<activity android:name="com.paypal.android.sdk.payments.PayPalFuturePaymentActivity" />
<activity android:name="com.paypal.android.sdk.payments.FuturePaymentConsentActivity" />
<activity android:name="com.paypal.android.sdk.payments.FuturePaymentInfoActivity" />
<activity
    android:name="io.card.payment.CardIOActivity"
    android:configChanges="keyboardHidden|orientation" />
<activity android:name="io.card.payment.DataEntryActivity" />
```

4) Open your Activity class and set Configuration for your app

```
//set the environment for production/sandbox/no netowrk
private static final String CONFIG_ENVIRONMENT = PayPalConfiguration.ENVIRONMENT_PRODUCTION;
```

5) Now set client id from the Paypal developer account

```
private static final String CONFIG_CLIENT_ID = "PUT YOUR CLIENT ID";
```

6) Inside onCreate method call the Paypal service

```
Intent intent = new Intent(this, PayPalService.class);
intent.putExtra(PayPalService.EXTRA_PAYPAL_CONFIGURATION, config);
startService(intent);
```

7) Now you are ready to make a payment just on button press call the Payment Activity

```
PayPalPayment thingToBuy = new PayPalPayment(new BigDecimal(1),"USD", "androidhub4you.com",
            PayPalPayment.PAYMENT_INTENT_SALE);
        Intent intent = new Intent(MainActivity.this, PaymentActivity.class);
        intent.putExtra(PaymentActivity.EXTRA_PAYMENT, thingToBuy);
        startActivityForResult(intent, REQUEST_PAYPAL_PAYMENT);
```

8) And finally from the onActivityResult get the payment response

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