

1. 首先在主界面布局文件中增加一个 ProgressBar，将 ProgressBar 和之前的更新按钮 ImageView 放在一起，并且写在 FrameLayout 下。如图

```
<TextView
    android:id="@+id/title_city_name"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:layout_toRightOf="@id/city_seperator"
    android:gravity="center_vertical"
    android:paddingLeft="5dip"
    android:text="北京天气"
    android:textColor="#ffffff" />
<FrameLayout
    android:id="@+id/updateFrame"
    android:layout_width="45.0dip"
    android:layout_height="45.0dip"
    android:layout_alignParentRight="true"
    android:layout_gravity="center">
    <ImageView
        android:id="@+id/title_update_btn"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:src="@drawable/title_update"
        android:visibility="visible" />
    <ProgressBar
        android:id="@+id/title_update_progress"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:visibility="invisible"
        android:indeterminateBehavior="repeat"
        android:indeterminateDrawable="@drawable/animated"
        style="@style/title_update_progressbar_style" />
</FrameLayout>
```

注意和其他按钮或者 button 的位置，比如和分享按钮的位置要进行代码的修改

```
<ImageView
    android:id="@+id/title_share"
    android:layout_width="45.0dip"
    android:layout_height="45.0dip"
    android:layout_toLeftOf="@id/updateFrame"
    android:src="@drawable/title_share" />
```

2. 编写相关的资源文件

正常情况下应该在 res 下创建 animator，编写相关文件，但我的会报错，我就在 drawable 下创建资源文件。

右键 drawable，new 一个 drawable Resource file，注意 root element 换成 **animated-rotate**

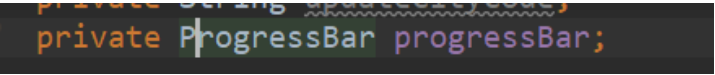
资源文件代码



```
<?xml version="1.0" encoding="utf-8"?>
<animated-rotate xmlns:android="http://schemas.android.com/apk/res/android"
    android:drawable="@drawable/title_update"
    android:fromDegrees="0"
    android:pivotX="50.0%"
    android:pivotY="50.0%"
    android:toDegrees="360.0"/>
```

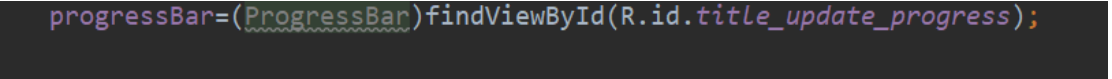
3. java 后台

在主 activity 中，首先定义一个 bar。



```
private String spaceStr;
private ProgressBar progressBar;
```

然后在 onCreate 中为添加它



```
progressBar=(ProgressBar)findViewById(R.id.title_update_progress);
```

然后走 onclick 事件，一点击刷新按钮，此时应该 update_btn 应该隐藏，progressbar 不隐藏，

```

//单击事件如果是刷新天气应用发生
if (view.getId() == R.id.title_update_btn) {
    mUpdateBtn.setVisibility(View.GONE);
    progressBar.setVisibility(View.VISIBLE);
    //通过SharedPreferences读取城市id, 如果没有定义则缺省为101010100 (北京城市)
    SharedPreferences sharedPreferences = getSharedPreferences( name: "cityCodePreferenced", Activity.MODE_PRIVATE);
    String cityCode = sharedPreferences.getString( key: "cityCode", defValue: "");
    if(!cityCode.equals("")){
        Log.d( tag: "ksning",cityCode);
        queryWeatherCode(cityCode);
    }else{
        queryWeatherCode( cityCode: "101010100");
    }
}

if (NetUtil.getNetworkState( context: this) != NetUtil.NETWORK_NONE) {
    Log.d( tag: "ksningWeather", msg: "网络ok");
    queryWeatherCode(cityCode);
} else {
    Log.d( tag: "ksningWeather", msg: "网络失败");
    Toast.makeText( context: MyActivity.this, text: "网络失败", Toast.LENGTH_SHORT).show();
}
}
}

```

最后，他们内部处理好之后，在传给前台界面，更新界面，走 UpdateTodayWeather()方法，此时，就让 update_btn 显示，progressBar 隐藏。

```

void updateTodayWeather(TodayWeather todayWeather){

    if(mUpdateBtn.getVisibility()==View.GONE&&progressBar.getVisibility()==View.VISIBLE){
        progressBar.setVisibility(View.GONE);
        mUpdateBtn.setVisibility(View.VISIBLE);
    }

    city_name_Tv.setText(todayWeather.getCity()+"天气");
    cityTv.setText(todayWeather.getCity());
    timeTv.setText(todayWeather.getUpdatetime()+"发布");
    humidityTv.setText("湿度:"+todayWeather.getShidu());
    weekTv.setText(todayWeather.getDate());
    pmDataTv.setText(todayWeather.getPm25());
    pmQualityTv.setText(todayWeather.getQuality());
    temperatureTv.setText("温度:"+todayWeather.getWendu());
    climateTv.setText(todayWeather.getType());
    windTv.setText("风力:"+todayWeather.getFengli());
    temperatureRangeTv.setText(todayWeather.getLow()+"~"+todayWeather.getHigh());
    Toast.makeText( context: this, text: "更新成功", Toast.LENGTH_SHORT).show();
}

```