课号:	序号:
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# 桂林电子科技大学 Android 应用开发 实验报告

实验名称		实验七 新闻列表				辅导员意见:				
院	系	计算机与信息	机与信息安全学院		计算机科学与技术		 写技术			
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实验日期		2022	年 —	5	月	11	—— 日 -	成绩	辅导员 签 名	

### 一、 实验目的

- 1. 掌握 okhttp 网络库进行同步、异步网络请求的方法;
- 2. 掌握 json 数据格式及 gson 库的使用方法;
- 3. 掌握第三方数据 API 接又申请及使用方法;

### 二、 实验内容

在前面的实验中,我们做过了新闻列表的内容,在本次实验中获取新闻的方式变成了从网络 API 接口。实验指导书当中介绍了天行数据 API 接口来获取新闻内容,在 AndroidMainfest. xml 文件中来修改网络获取的权限。通过 News 方法的 NewsAdapter 来进行存储数据,并且将与新闻有关的数据渲染到 ListView中,定义 BaseResponse 来响应 HTTP 属性,通过 okhttp 来进行请求 API,通过 refreshData 方法来操作请求。

## 三、实验总结

通过本次实验,学会了如何去通过第三方去获取新闻数据。Json 数据的格式与我们平时使用的图片格式不一样,是需要通过 http 协议才能够获取图片的内容,如果没有这个前缀,图片内容可能会无法显示出来。



图 1. 新闻列表界面



图 2. 新闻详细界面

#### 四、实验代码

```
1. MainActivicy.java
   package com.example.ggnews;
   import android.content.Intent;
   import android.os.Bundle;
   import android.os.NetworkOnMainThreadException;
   import android.util.Log;
   import android.view.View;
   import android.widget.AdapterView;
   import android.widget.ListView;
   import androidx.appcompat.app.AppCompatActivity;
   import com.google.gson.Gson;
   import com.google.gson.reflect.TypeToken;
   import java.io.IOException;
   import java.lang.reflect.Type;
   import java.util.ArrayList;
   import java.util.List;
   public class MainActivity extends AppCompatActivity {
       private ListView lvNewsList;
       private List<News> newsData;
       private String TAG = "GGnews";
       private int page = 1;
       private int mCurrentColIndex=0;
       private int[] mCols = new
   int[]{Constants.NEWS COL5,Constants.NEWS COL7,Constants.NEWS COL8,Constants.NEWS
   COL10,Constants.NEWS COL11};
       private okhttp3.Callback callback = new okhttp3.Callback(){
            @Override
            public void onFailure(Call call, IOException e) {
                 Log.e(TAG,"Failed to connect server!");
                 e.printStackTrace();
            }
            @Override
            public void onResponse(Call call, Response response) throws IOException {
                 if(response.isSuccessful())
```

```
{
                   final String body = response.body().string();
                   runOnUiThread(new Runnable() {
                       @Override
                       public void run() {
                            Gson gson = new Gson();
                            Type jsonType = new
TypeToken<BaseResponse<List<News>>>(){}.getType();
                            BaseResponse<List<News>>newsListResponse =
gson.fromJson(body,jsonType);
                            for(News news:newsListResponse.getData())
                                 adapter.add(news);
                            adapter.notifyDataSetChanged();
                   });
              } else
     };
    private NewsAdapter adapter;
    //初始化 layout
    private void initView()
         lvNewsList = findViewById(R.id.lv news list);
         lvNewsList.setOnItemClickListener(new AdapterView.OnItemClickListener() {
              @Override
              public void on Item Click (Adapter View <?> parent, View view, int position, long id)
{
                   Intent intent = new Intent(MainActivity.this,DetailActivity.class);
                  News news = adapter.getItem(position);
intent.putExtra(Constants.NEWS DETAIL URL KEY,news.getmContentUrl());
                   startActivity(intent);
         });
     }
    private void refreshData(final int page)
```

```
{
         new Thread(new Runnable() {
              @Override
              public void run() {
                  NewsRequest request = new NewsRequest();
                  request.setCol(mCols[mCurrentColIndex]);
                   request.setNum(Constants.NEWS NUM);
                   request.setPage(page);
                   String urlParams = request.toString();
                  Request request1 = new
Request.Builder().url(Constants.GENERAL_NEWS_URL+urlParams).get().build();
                  try {
                       OkHttpClient client = new OkHttpClient();
                       client.newCall(request1).enqueue(callback);
                   }catch (NetworkOnMainThreadException ex)
                       ex.printStackTrace();
         }).start();
    }
    //初始化数据
    private void initData()
         newsData = new ArrayList<>();
         adapter = new NewsAdapter(MainActivity.this,R.layout.list item,newsData);
         lvNewsList.setAdapter(adapter);
         refreshData(1);
         if(newsData.isEmpty())
              Log.e(TAG, "initData: is null " );
    }
    @Override
    protected void onCreate(Bundle savedInstanceState) {
         super.onCreate(savedInstanceState);
         setContentView(R.layout.activity main);
         initView();
```

```
initData();
        }
2. NewsAdapter.java
package com.example.ggnews;
import android.content.Context;
import android.text.Layout;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ArrayAdapter;
import android.widget.ImageView;
import android.widget.TextView;
import java.util.List;
public class NewsAdapter extends ArrayAdapter<News> {
    private List<News> mNewData;
    private Context mContext;
    private int resourceId;
    public NewsAdapter(Context context, int resourceId, List<News> data){
         super(context,resourceId,data);
         this.mContext = context;
         this.mNewData = data;
         this.resourceId = resourceId;
     }
    @Override
    public View getView(int position, View convertView, ViewGroup parent){
         News news = getItem(position);
         View view;
         final ViewHolder vh;
         if (convertView == null){
              view = LayoutInflater.from(getContext()).inflate(resourceId,parent,false);
              vh = new ViewHolder();
              vh.tvTitle = view.findViewById(R.id.tv title);
              vh.tvSource = view.findViewById(R.id.tv subtitle);
              vh.ivImage = view.findViewById(R.id.iv image);
              vh.ivDelete = view.findViewById(R.id.iv delete);
```

```
vh.tvPublishTime = view.findViewById(R.id.tv publish time);
              view.setTag(viewHolder);
         } else {
              view = convertView;
              vh = (ViewHolder) view.getTag();
         }
         vh.tvTitle.setText(news.getTitle());
         vh.tvSource.setText(news.getSource());
         vh.ivDelete.setTag(position);
         vh.tvPublishTime.setText(news.getData());
         Glide.with(mContext).load(news.getPicUrl()).into(viewHolder.ivImage);
         return view;
     }
    class ViewHolder{
         TextView tvTitle;
         TextView tvSource;
         ImageView ivImage;
         TextView tvPublishTime;
         ImageView ivDelete;
}
3. BaseResponse.java
package com.example.ggnews;
public class BaseResponse <T>{
    private int code;
    private String msg;
    public final static int RESPONSE SUCCESS = 0;
    @SerializeName("newslist")
    private T data;
    public BaseResponse(){
     }
    public int getCode(){
         return code;
```

```
public void setCode(int code){
         this.code = code;
    }
    public String getMsg(){
         return msg;
    }
    public void setMsg(String msg){
         this.msg = msg;
    public T getData(){
         return data;
    }
    public void setData(T data){
         this.data = data:
}
4. Constants.java
package com.example.ggnews;
public class Constants {
    private Constants(){
    }
    public static final int NEWS_NUM = 10;
    public static String SERVER URL = "https://api.tianapi.com/";
    public static String ALL NEWS PATH = "allnews/";
    public static String GENERAL NEWS PATH = "generalnews/";
    public static String API KEY = "b8dfac3922453acf07619230d79de21f";
    public static String ALL NEWS URL = SERVER URL+ GENERAL NEWS PATH;
    public static int NEWS COL5 = 5;
    public static int NEWS COL7 = 7;
    public static int NEWS COL8 = 8;
    public static int NEWS COL10 = 10;
    public static int NEWS COL11 = 11;
    public static String NEWS DETAIL URL KEY = "news detail url key";
}
```

```
import android.graphics.Color;
import androidx.fragment.app.Fragment;
import androidx.fragment.app.FragmentTransaction;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.ImageView;
import android.widget.LinearLayout;
import android.widget.TextView;
import android.widget.Toast;
import com.example.ts.news.Fragment.MainFragment;
import com.example.ts.news.Fragment.MineFragment;
import com.example.ts.news.Fragment.SettingFragment;
import com.example.ts.news.R;
import com.example.ts.news.Utils.ApplicationUtil;
import com.google.android.material.floatingactionbutton.FloatingActionButton;
import java.util.ArrayList;
import java.util.List;
public class MainActivity extends AppCompatActivity implements View.OnClickListener {
    private LinearLayout II main, II setting, II mine;
    private MainFragment mainFragment;
    private SettingFragment settingFragment;
    private MineFragment mineFragment;
    private List<Fragment> fragmentList = new ArrayList<>();
    private ImageView img main, img seting, img mine;
    private TextView text main, text setting, text mine;
//
     private FloatingActionButton fabu;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
         super.onCreate(savedInstanceState);
         setContentView(R.layout.activity main);
//
          fabu = findViewById(R.id.fabu);
//
          fabu.setOnClickListener(new View.OnClickListener() {
//
               @Override
```

```
//
               public void onClick(View view) {
//
                    Toast.makeText(MainActivity.this, "点击发布动态",
Toast.LENGTH SHORT).show();
//
               }
//
          });
         initView();
         initFragment();
         11 main.setOnClickListener(this);
         11 setting.setOnClickListener(this);
         11 mine.setOnClickListener(this);
         ApplicationUtil.getInstance().addActivity(this);
    }
    private void initView() {
         11 main = (LinearLayout) findViewById(R.id.layout main);
         11 setting = (LinearLayout)findViewById(R.id.layout setting);
         11 mine = (LinearLayout)findViewById(R.id.layout mine);
         text main = (TextView) findViewById(R.id.text main);
         text setting = (TextView) findViewById(R.id.text setting);
         text mine = (TextView) findViewById(R.id.text mine);
         img main = (ImageView) findViewById(R.id.img main);
         img seting =(ImageView) findViewById(R.id.img setting);
         img mine =(ImageView) findViewById(R.id.img mine);
         img main.setImageResource(R.drawable.main selected);
         text main.setTextColor(Color.WHITE);
    }
    private void initFragment() {
         mainFragment = new MainFragment();
         addFragment(mainFragment);
         showFragment(mainFragment);
    }
    /*添加 fragment*/
    private void addFragment(Fragment fragment) {
         FragmentTransaction transaction = getSupportFragmentManager().beginTransaction();
         if (!fragment.isAdded()) {
              transaction.setTransition(FragmentTransaction.TRANSIT FRAGMENT OPEN);
              transaction.add(R.id.main content, fragment).commit();
              fragmentList.add(fragment);
```

```
}
    }
    /*显示 fragment*/
    private void showFragment(Fragment fragment) {
         for (Fragment frag : fragmentList) {
              if (frag != fragment) {
                  FragmentTransaction transaction =
getSupportFragmentManager().beginTransaction();
                  transaction.hide(frag).commit();
              }
         }
         FragmentTransaction transaction = getSupportFragmentManager().beginTransaction();
         transaction.setTransition(FragmentTransaction.TRANSIT FRAGMENT OPEN);
         transaction.show(fragment).commit();
    }
    @Override
    public void onClick(View view) {
         switch (view.getId()) {
              case R.id.layout main: {
                  if (mainFragment == null) {
                       mainFragment = new MainFragment();
                  }
                  addFragment(mainFragment);
                  showFragment(mainFragment);
                  text main.setTextColor(Color.WHITE);
                  text setting.setTextColor(Color.BLACK);
                  text mine.setTextColor(Color.BLACK);
                  img main.setImageResource(R.drawable.main selected);
                  img seting.setImageResource(R.drawable.setting);
                  img mine.setImageResource(R.drawable.mine);
              }
              break;
              case R.id.layout_setting: {
                  if (settingFragment == null) {
                       settingFragment = new SettingFragment();
                  addFragment(settingFragment);
                  showFragment(settingFragment);
                  text setting.setTextColor(Color.WHITE);
                  text main.setTextColor(Color.BLACK);
                  text mine.setTextColor(Color.BLACK);
```

```
img main.setImageResource(R.drawable.main);
                  img seting.setImageResource(R.drawable.setting selected);
                  img mine.setImageResource(R.drawable.mine);
              }
             break;
             case R.id.layout_mine: {
                  if (mineFragment == null) {
                       mineFragment = new MineFragment();
                  addFragment(mineFragment);
                  showFragment(mineFragment);
                  text mine.setTextColor(Color.WHITE);
                  text main.setTextColor(Color.BLACK);
                  text setting.setTextColor(Color.BLACK);
                  img main.setImageResource(R.drawable.main);
                  img seting.setImageResource(R.drawable.setting);
                  img mine.setImageResource(R.drawable.mine selected);
              }
             break;
             default:
                  break:
         }
    }
}
package com.example.ts.news.Adapter;
import android.content.Context;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.ImageView;
import android.widget.TextView;
import com.example.ts.news.Bean.News;
import com.example.ts.news.R;
import java.util.List;
public class NewsAdapter extends ArrayAdapter<News> implements View.OnClickListener {
    private int resourceId;
    private CallBack mCallBack;
```

```
public NewsAdapter(Context context, int textViewResourceId, List<News> objects, CallBack
callBack) {
         super(context, textViewResourceId, objects);
         resourceId = textViewResourceId;
         mCallBack = callBack;
    }
    public interface CallBack {
         public void click(View view);
    }
    @Override
    public View getView(int position, View convertView, ViewGroup parent) {
         News news = getItem(position);
         View view;
         ViewHolder viewHolder;
         if (convertView == null) {
              view = LayoutInflater.from(getContext()).inflate(resourceId, parent, false);
              viewHolder = new ViewHolder();
              viewHolder.newsImg = view.findViewById(R.id.news item img);
              viewHolder.newsTitle = view.findViewById(R.id.news item title);
              viewHolder.newsDelete = view.findViewById(R.id.delete item);
              viewHolder.newsAuthor = view.findViewById(R.id.news item author);
              viewHolder.newsDate = view.findViewById(R.id.news item date);
              view.setTag(viewHolder);
         } else {
              view = convertView;
              viewHolder = (ViewHolder) view.getTag();
         }
         if(news.getNews img()!=null) {
              viewHolder.newsImg.setImageBitmap(news.getNews img());
         }
         viewHolder.newsTitle.setText(news.getNews title());
         viewHolder.newsAuthor.setText(news.getAuthor name());
         viewHolder.newsDate.setText(news.getDate());
         viewHolder.newsDelete.setTag(position);
         viewHolder.newsDelete.setOnClickListener(this);
         return view;
    }
    static class ViewHolder {
```

```
TextView newsTitle;
         TextView newsAuthor:
         TextView newsDate;
         ImageView newsDelete;
    }
    @Override
    public void onClick(View view) {
         mCallBack.click(view);
    }
}
import android.content.Context;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.ImageView;
import android.widget.TextView;
import com.example.ts.news.Bean.News;
import com.example.ts.news.R;
import java.util.List;
public class NewsAdapter extends ArrayAdapter<News> implements View.OnClickListener {
    private int resourceId;
    private CallBack mCallBack;
    public NewsAdapter(Context context, int textViewResourceId, List<News> objects, CallBack
callBack) {
         super(context, textViewResourceId, objects);
         resourceId = textViewResourceId;
         mCallBack = callBack;
    }
    public interface CallBack {
         public void click(View view);
    }
    @Override
    public View getView(int position, View convertView, ViewGroup parent) {
```

ImageView newsImg;

```
News news = getItem(position);
    View view;
    ViewHolder viewHolder;
    if (convertView == null) {
         view = LayoutInflater.from(getContext()).inflate(resourceId, parent, false);
         viewHolder = new ViewHolder();
         viewHolder.newsImg = view.findViewById(R.id.news item img);
         viewHolder.newsTitle = view.findViewById(R.id.news item title);
         viewHolder.newsDelete = view.findViewById(R.id.delete item);
         viewHolder.newsAuthor = view.findViewById(R.id.news item author);
         viewHolder.newsDate = view.findViewById(R.id.news item date);
         view.setTag(viewHolder);
    } else {
         view = convertView;
         viewHolder = (ViewHolder) view.getTag();
    }
    if(news.getNews img()!=null) {
         viewHolder.newsImg.setImageBitmap(news.getNews img());
    }
    viewHolder.newsTitle.setText(news.getNews title());
    viewHolder.newsAuthor.setText(news.getAuthor name());
    viewHolder.newsDate.setText(news.getDate());
    viewHolder.newsDelete.setTag(position);
    viewHolder.newsDelete.setOnClickListener(this);
    return view;
}
static class ViewHolder {
    ImageView newsImg;
    TextView newsTitle;
    TextView newsAuthor;
    TextView newsDate;
    ImageView newsDelete;
}
@Override
public void onClick(View view) {
    mCallBack.click(view);
}
```

}

```
import android.graphics.Color;
import androidx.fragment.app.Fragment;
import androidx.fragment.app.FragmentTransaction;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.ImageView;
import android.widget.LinearLayout;
import android.widget.TextView;
import android.widget.Toast;
import com.example.ts.news.Fragment.MainFragment;
import com.example.ts.news.Fragment.MineFragment;
import com.example.ts.news.Fragment.SettingFragment;
import com.example.ts.news.R;
import com.example.ts.news.Utils.ApplicationUtil;
import com.google.android.material.floatingactionbutton.FloatingActionButton;
import java.util.ArrayList;
import java.util.List;
public class MainActivity extends AppCompatActivity implements View.OnClickListener {
    private LinearLayout II main, II setting, II mine;
    private MainFragment mainFragment;
    private SettingFragment settingFragment;
    private MineFragment mineFragment;
    private List<Fragment> fragmentList = new ArrayList<>();
    private ImageView img main, img seting, img mine;
    private TextView text main, text setting, text mine;
//
     private FloatingActionButton fabu;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
         super.onCreate(savedInstanceState);
         setContentView(R.layout.activity main);
//
          fabu = findViewById(R.id.fabu);
          fabu.setOnClickListener(new View.OnClickListener() {
//
//
               @Override
//
               public void onClick(View view) {
//
                    Toast.makeText(MainActivity.this, "点击发布动态",
Toast.LENGTH SHORT).show();
```

```
}
      });
    initView();
    initFragment();
    11 main.setOnClickListener(this);
    11 setting.setOnClickListener(this);
    11 mine.setOnClickListener(this);
    ApplicationUtil.getInstance().addActivity(this);
}
private void initView() {
    11 main = (LinearLayout) findViewById(R.id.layout main);
    11 setting = (LinearLayout)findViewById(R.id.layout setting);
    ll mine = (LinearLayout)findViewById(R.id.layout mine);
    text main = (TextView) findViewById(R.id.text main);
    text setting = (TextView) findViewById(R.id.text setting);
    text mine = (TextView) findViewById(R.id.text mine);
    img main = (ImageView) findViewById(R.id.img main);
    img seting =(ImageView) findViewById(R.id.img setting);
    img mine =(ImageView) findViewById(R.id.img mine);
    img main.setImageResource(R.drawable.main selected);
    text main.setTextColor(Color.WHITE);
}
private void initFragment() {
    mainFragment = new MainFragment();
    addFragment(mainFragment);
    showFragment(mainFragment);
}
/*添加 fragment*/
private void addFragment(Fragment fragment) {
    FragmentTransaction transaction = getSupportFragmentManager().beginTransaction();
    if (!fragment.isAdded()) {
         transaction.setTransition(FragmentTransaction.TRANSIT FRAGMENT OPEN);
         transaction.add(R.id.main content, fragment).commit();
         fragmentList.add(fragment);
    }
}
```

//

//

```
/*显示 fragment*/
    private void showFragment(Fragment fragment) {
         for (Fragment frag : fragmentList) {
              if (frag != fragment) {
                  FragmentTransaction transaction =
getSupportFragmentManager().beginTransaction();
                  transaction.hide(frag).commit();
              }
         }
         FragmentTransaction transaction = getSupportFragmentManager().beginTransaction();
         transaction.setTransition(FragmentTransaction.TRANSIT FRAGMENT OPEN);
         transaction.show(fragment).commit();
    }
    @Override
    public void onClick(View view) {
         switch (view.getId()) {
              case R.id.layout main: {
                  if (mainFragment == null) {
                       mainFragment = new MainFragment();
                  }
                  addFragment(mainFragment);
                  showFragment(mainFragment);
                  text main.setTextColor(Color.WHITE);
                  text setting.setTextColor(Color.BLACK);
                  text mine.setTextColor(Color.BLACK);
                  img main.setImageResource(R.drawable.main selected);
                  img seting.setImageResource(R.drawable.setting);
                  img_mine.setImageResource(R.drawable.mine);
              }
             break;
              case R.id.layout setting: {
                  if (settingFragment == null) {
                       settingFragment = new SettingFragment();
                  addFragment(settingFragment);
                  showFragment(settingFragment);
                  text setting.setTextColor(Color.WHITE);
                  text main.setTextColor(Color.BLACK);
                  text mine.setTextColor(Color.BLACK);
                  img main.setImageResource(R.drawable.main);
                  img seting.setImageResource(R.drawable.setting selected);
                  img mine.setImageResource(R.drawable.mine);
```

```
}
              break;
              case R.id.layout mine: {
                  if (mineFragment == null) {
                       mineFragment = new MineFragment();
                  }
                  addFragment(mineFragment);
                  showFragment(mineFragment);
                  text mine.setTextColor(Color.WHITE);
                  text main.setTextColor(Color.BLACK);
                  text setting.setTextColor(Color.BLACK);
                  img main.setImageResource(R.drawable.main);
                  img seting.setImageResource(R.drawable.setting);
                  img mine.setImageResource(R.drawable.mine selected);
              }
              break:
              default:
                  break:
         }
    }
}
package com.example.ts.news.Activity;
import android.annotation.SuppressLint;
import android.content.Intent;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.graphics.Bitmap;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;
import androidx.annotation.Nullable;
import androidx.appcompat.app.AppCompatActivity;
import com.example.ts.news.Adapter.NewsAdapter;
import com.example.ts.news.Bean.News;
import com.example.ts.news.R;
import com.example.ts.news.Utils.HttpUtils;
import com.example.ts.news.Utils.MyDatabaseHelper;
```

```
import java.util.ArrayList;
import java.util.List;
public class HistoryActivity extends AppCompatActivity implements NewsAdapter.CallBack {
    private List<News> newsList = new ArrayList<>();
    private ListView history;
    private NewsAdapter history adapter;
    private MyDatabaseHelper helper;
    private TextView history back;
    @Override
    protected void onCreate(@Nullable Bundle savedInstanceState) {
         super.onCreate(savedInstanceState);
         setContentView(R.layout.activity history);
         history back = (TextView)findViewById(R.id.history back);
         history back.setOnClickListener(new View.OnClickListener() {
              @Override
              public void onClick(View view) {
                   HistoryActivity.this.finish();
              }
         });
         helper = new MyDatabaseHelper(this, "UserDB.db", null, 1);
         initView();
         initNews();
         history.setAdapter(history adapter);
         history.setOnItemClickListener(new AdapterView.OnItemClickListener() {
              @Override
              public void onItemClick(AdapterView<?> adapterView, View view, int i, long l) {
                   String url = newsList.get(i).getNews url();
                   Intent intent = new Intent(HistoryActivity.this, ShowNewsActivity.class);
                   intent.putExtra("url", url);
                   startActivity(intent);
              }
         });
     }
```

```
private void initNews() {
         new Thread(new Runnable() {
              @Override
             public void run() {
                  SQLiteDatabase db = helper.getReadableDatabase();
                  Cursor cursor = db.rawQuery("select * from History News", null);
                  if (cursor.getCount() != 0) {
                       if (cursor.moveToFirst()) {
                            do {
                                //遍历 Cursor 对象,取出数据并打印
                                @SuppressLint("Range") String news url =
cursor.getString(cursor.getColumnIndex("news url"));
                                @SuppressLint("Range") String news title =
cursor.getString(cursor.getColumnIndex("news title"));
                                @SuppressLint("Range") String news date =
cursor.getString(cursor.getColumnIndex("news date"));
                                @SuppressLint("Range") String news author =
cursor.getString(cursor.getColumnIndex("news author"));
                                @SuppressLint("Range") String news picurl =
cursor.getString(cursor.getColumnIndex("news picurl"));
                                Bitmap bitmap =
HttpUtils.decodeUriAsBitmapFromNet(news picurl);
                                News news = new News(bitmap, news_title, news_url, news_picurl,
news date, news author);
                                newsList.add(news);
                            } while (cursor.moveToNext());
                  } else {
                       runOnUiThread(new Runnable() {
                            @Override
                            public void run() {
                                Toast.makeText(getApplicationContext(), "History 为空!",
Toast.LENGTH SHORT).show();
                       });
                  }
                  runOnUiThread(new Runnable() {
                       @Override
                       public void run() {
                            history adapter.notifyDataSetChanged();
                  });
                  cursor.close();
```

```
db.close();
              }
         }).start();
     }
    @Override
    public void click(View view) {
         int position = Integer.parseInt(view.getTag().toString());
         SQLiteDatabase db = helper.getReadableDatabase();
         db.execSQL("delete from History News where news title=?",
                   new String[]{newsList.get(position).getNews title()});
         db.close();
         newsList.remove(position);
         history adapter.notifyDataSetChanged();
         Toast.makeText(this, "该新闻已被移除!", Toast.LENGTH SHORT).show();
    }
    private void initView() {
         history = (ListView) findViewById(R.id.listview history);
         history adapter = new NewsAdapter(this, R.layout.news item, newsList, this);
     }
}
package com.example.ts.news.Activity;
import android.app.ProgressDialog;
import android.content.ContentValues;
import android.content.Intent;
import android.content.SharedPreferences;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.graphics.Bitmap;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.webkit.WebView;
import android.webkit.WebViewClient;
import android.widget.ImageView;
import android.widget.Toast;
import com.example.ts.news.R;
import com.example.ts.news.Utils.MyDatabaseHelper;
```

```
import java.util.UUID;
public class ShowNewsActivity extends AppCompatActivity {
    private WebView show news;
    private ImageView collect news;
    // 添加用户等待显示控件
    private ProgressDialog mDialog;
    private MyDatabaseHelper helper;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
         super.onCreate(savedInstanceState);
         setContentView(R.layout.activity show news);
         initView();
         helper = new MyDatabaseHelper(this, "UserDB.db", null, 1);
         mDialog = new ProgressDialog(ShowNewsActivity.this);
         mDialog.setMessage("加载中,请稍候");
         show news.setWebViewClient(new WebViewClient() {
             //网页加载时的回调
             @Override
             public void onPageStarted(WebView view, String url, Bitmap favicon) {
                  super.onPageStarted(view, url, favicon);
                  if (!mDialog.isShowing()) {
                       mDialog.show();
                  }
              }
             //网页停止加载时的回调
             @Override
             public void onPageFinished(WebView view, String url) {
                  super.onPageFinished(view, url);
                  // 如果没有显示,则显示
                  if (mDialog.isShowing())
                       mDialog.dismiss();
              }
         });
         show news.getSettings().setJavaScriptEnabled(true);
         Intent intent = getIntent();
         final String news url = intent.getStringExtra("url");
         final String news title = intent.getStringExtra("title");
         final String news date = intent.getStringExtra("date");
         final String news author = intent.getStringExtra("author");
```

```
final String news picurl = intent.getStringExtra("pic url");
         show news.loadUrl(news url);
         SQLiteDatabase db = helper.getWritableDatabase();
         Cursor cursor = db.rawQuery("select * from Collection News where news url=?", new
String[]{news url});
         if(cursor.getCount()==1){
              collect news.setImageResource(R.drawable.favorite selected);
         }
         collect news.setOnClickListener(new View.OnClickListener() {
              @Override
              public void onClick(View view) {
                  //collect news.setImageResource(R.drawable.favorite selected);
                  ContentValues values = new ContentValues();
                  //组装数据
                  values.put("news url", news url);
                  values.put("news title", news title);
                  values.put("news date", news date);
                  values.put("news author", news author);
                  values.put("news picurl", news picurl);
                  if(cursor.getCount()==1){
                       collect news.setImageResource(R.drawable.favorite);
                       db.execSQL("delete from Collection News where news title=?",
                                new String[]{news title});
                       Toast.makeText(ShowNewsActivity.this, "取消收藏!",
Toast.LENGTH_SHORT).show();
                  else {
                       collect news.setImageResource(R.drawable.favorite selected);
                       db.insert("Collection News", null, values);
                       Toast.makeText(ShowNewsActivity.this, "收藏成功!",
Toast.LENGTH_SHORT).show();
                  db.close();
         });
    }
    private void initView() {
         show news = (WebView) findViewById(R.id.show news);
```

```
collect_news =(ImageView) findViewById(R.id.collect_news);
}
```