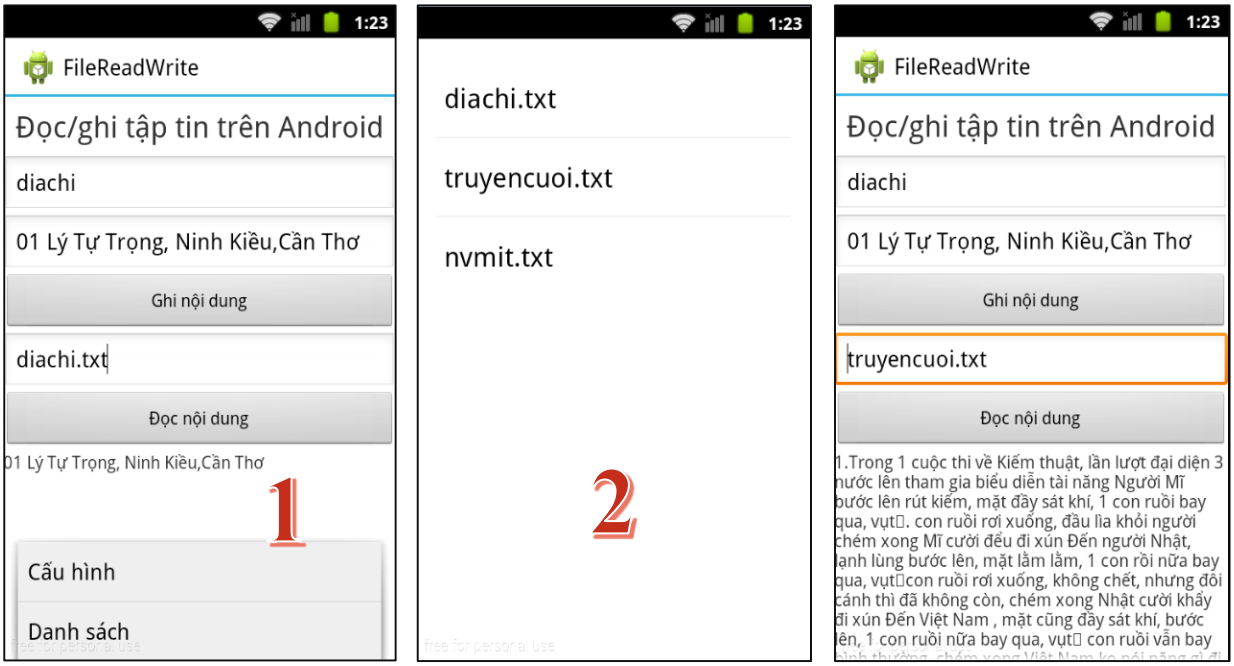
Tập tin/thư mục

Mục tiêu

1. Tạo và đọc được nội dung của thư mục và tập tin
2. Sử dụng tập tin/ thư mục dùng chung và riêng



Giao diện ứng dụng

1. Tạo 02 activity là: **MainActivty** (hình 1) và **DanhSachTruyen** (hinh2)
2. Thiết kế giao diện cho hình 1 và 2

activity_main.xml

```
Code xml tham khảo
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_gravity="center"
    android:orientation="vertical"
    tools:context=".MainActivity" >

    <TextView
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:paddingBottom="8dp"
        android:paddingTop="8dp"
        android:text="Đọc/ghi tập tin trên Android"
```

```
        android:textAlignment="center"
        android:textSize="24dp" />

    <EditText
        android:id="@+id/fname"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:hint="Tên tập tin" />

    <EditText
        android:id="@+id/ftext"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:hint="Nội dung ghi" />

    <Button
        android:id="@+id/btnwrite"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Ghi nội dung" />

    <EditText
        android:id="@+id/fnameread"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:hint="Tên tập tin" />

    <Button
        android:id="@+id/btnread"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Đọc nội dung" />

    <ScrollView
        android:id="@+id/scrollView1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" >

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:orientation="vertical" >

            <TextView
                android:id="@+id/filecon"
                android:layout_width="fill_parent"
                android:layout_height="wrap_content" />
        </LinearLayout>
    </ScrollView>

</LinearLayout>
```

- **activity_danh_sach_truyen.xml**

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/LinearLayout1"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
```

```
    android:paddingTop="@dimen/activity_vertical_margin"
    tools:context="com.example.filereadwrite.DanhSachTruyen$PlaceholderFragment" >

    <ListView
        android:id="@+id/listView1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" >
    </ListView>

</LinearLayout>
```

3. Tạo lớp FileOperations như sau

```
package com.example.filereadwrite;
import java.io.BufferedReader;
import java.io.BufferedWriter;
import java.io.File;
import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.io.IOException;
import java.io.InputStreamReader;
import java.io.OutputStreamWriter;
import java.io.Writer;

public class FileOperations {
	public Boolean write(String fname, String fcontent) {
		try {
			String fpath = "/sdcard/" + fname + ".txt";
			File file = new File(fpath);
			// If file does not exists, then create it
			if (!file.exists()) {
				file.createNewFile();
			}

			Writer bw = new BufferedWriter(new OutputStreamWriter(
				new FileOutputStream(file.getAbsolutePath()), "UTF-16LE"));
			bw.write(fcontent);
			bw.close();
			return true;
		} catch (IOException e) {
			e.printStackTrace();
			return false;
		}
	}

	public String read(String fname) {
		BufferedReader br = null;
		String response = null;
		try {
			StringBuffer output = new StringBuffer();
			String fpath = "/sdcard/" + fname;
			br = new BufferedReader(new InputStreamReader(
					new FileInputStream(fpath), "UTF-16LE"));
			String line = "";
			while ((line = br.readLine()) != null) {
				output.append(line + "\n");
			}
			response = output.toString();
		} catch (IOException e) {
			e.printStackTrace();
			return null;
```

```
            }
            return response;
        }
}
```

4. Hiệu chỉnh lại nội dung của MainActitity như sau

```
package com.example.filereadwrite;
import android.content.Intent;
import android.os.Bundle;
import android.support.v7.app.ActionBarActivity;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

public class MainActivity extends ActionBarActivity {

        EditText fname, fcontent, fnameread;
        Button write, read;
        TextView filecon;

        @Override
        protected void onCreate(Bundle savedInstanceState) {
                super.onCreate(savedInstanceState);
                setContentView(R.layout.activity_main);
                fname = (EditText) findViewById(R.id.fname);
                fcontent = (EditText) findViewById(R.id.ftext);
                fnameread = (EditText) findViewById(R.id.fnameread);
                write = (Button) findViewById(R.id.btnwrite);
                read = (Button) findViewById(R.id.btnread);
                filecon = (TextView) findViewById(R.id.filecon);
                write.setOnClickListener(new View.OnClickListener() {
                        @Override
                        public void onClick(View arg0) {
                                // TODO Auto-generated method stub
                                String filename = fname.getText().toString();
                                String filecontent = fcontent.getText().toString();
                                FileOperations fop = new FileOperations();
                                fop.write(filename, filecontent);
                                if (fop.write(filename, filecontent)) {
                                        Toast.makeText(getApplicationContext(),
                                        filename+".txt created",Toast.LENGTH_SHORT).show();
                                } else {
                                        Toast.makeText(getApplicationContext(), "I/O error",
                                                        Toast.LENGTH_SHORT).show();
                                }
                        }
                });
                read.setOnClickListener(new View.OnClickListener() {
                        @Override
                        public void onClick(View arg0) {
                                String readfilename = fnameread.getText().toString();
                                FileOperations fop = new FileOperations();
                                String text = fop.read(readfilename);
                                if (text != null) {
                                        filecon.setText(text);
                                } else {
```

```
                                Toast.makeText(getApplicationContext(),"File not
Found",Toast.LENGTH_SHORT).show();
                                filecon.setText(null);
                            }
                        }
                });

        }

        @Override
        public boolean onCreateOptionsMenu(Menu menu) {
                getMenuInflater().inflate(R.menu.main, menu);
                return true;
        }

        @Override
        public boolean onOptionsItemSelected(MenuItem item) {
                int id = item.getItemId();
                if (id == R.id.action_settings) {
                        return true;
                }

                if (id == R.id.mnuDanhSach) {
                        // goi danh sach
                        Intent intent = new Intent(this, DanhSachTruyen.class);
                        startActivityForResult(intent, 1000);
                        return true;
                }

                return super.onOptionsItemSelected(item);
        }

        @Override
        protected void onActivityResult(int requestCode, int resultCode,
                        Intent intent) {
                super.onActivityResult(requestCode, resultCode, intent);
                if (resultCode == RESULT_OK) {
                        if (requestCode == 1000) {
                                String readfilename = intent.getStringExtra("fileName");
                                fnameread.setText(readfilename);
                                FileOperations fop = new FileOperations();
                                String text = fop.read(readfilename);
                                if (text != null) {
                                        filecon.setText(text);
                                } else {
                                Toast.makeText(getApplicationContext(), "File not Found",
                                                Toast.LENGTH_SHORT).show();
                                        filecon.setText(null);
                                }
                        }
                }
        }
}
```

5. Hiệu chỉnh lại nội dung của DanhSachTruyen như sau

```
package com.example.filereadwrite;
import java.io.File;
import java.io.FilenameFilter;
import java.util.ArrayList;
import android.app.Activity;
```

```
import android.content.Intent;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemLongClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;

public class DanhSachTruyen extends Activity {

	ListView lvDsTruyen;
	ArrayList<String> dsTruyen = new ArrayList<String>();

	@Override
	protected void onCreate(Bundle savedInstanceState) {
		super.onCreate(savedInstanceState);
		setContentView(R.layout.activity_danh_sach_truyen);

		lvDsTruyen = (ListView) findViewById(R.id.listView1);
		dsTruyen = lietKeDanhSach();
		ArrayAdapter<String> adp = new ArrayAdapter<>(this,
				android.R.layout.simple_list_item_1, dsTruyen);
		lvDsTruyen.setAdapter(adp);

		lvDsTruyen.setOnItemLongClickListener(new OnItemLongClickListener() {
			@Override
			public boolean onItemLongClick(AdapterView<?> parent, View view,
					int position, long id) {
				Intent intent = new Intent();
				intent.putExtra("fileName", dsTruyen.get(position));
				setResult(RESULT_OK, intent);

				finish();
				return false;
			}
		});
	}

	public ArrayList<String> lietKeDanhSach() {
		final ArrayList<String> dsTruyen = new ArrayList<String>();
		File dir = new File("/sdcard/");
		dir.listFiles(new FilenameFilter() {
			@Override
			public boolean accept(File dir, String filename) {
				if (filename.indexOf(".txt") >= 0) {
					dsTruyen.add(filename);
					return true;
				} else
					return false;
			}
		});

		return dsTruyen;
	}

	@Override
	public boolean onCreateOptionsMenu(Menu menu) {
		getMenuInflater().inflate(R.menu.danh_sach_truyen, menu);
		return true;
	}
```

```
	@Override
	public boolean onOptionsItemSelected(MenuItem item) {
		int id = item.getItemId();

		if (id == R.id.action_settings) {
			return true;
		}

		return super.onOptionsItemSelected(item);
	}
}
```

6. Chạy lại ứng dụng để kiểm tra kết quả