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# MOBILE APPLICATION DEVELOPMENT

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Lab 6



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BSCS-VII

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## Activity 1: MadLibs using Files

### Layout

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        app:srcCompat="@drawable/cover" />

    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:padding="10dp"
        android:text="Welcome to Mad Libs! I will ask you to fill in words to complete the story until you are done filling in all the missing words. That's part of the fun. Click below to get started..."
        android:textColor="@color/black">
```

```

        android:textSize="18sp" />

<Button
    android:id="@+id/btnst"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="right"
    android:onClick="start"
    android:text="GET STARTED!"
    android:textColor="@color/black"
    android:textSize="30sp"
    android:textStyle="bold"
    android:backgroundTint="#808080"
    />
</LinearLayout>

```

```

<?xml version="1.0" encoding="utf-8"?>
<ScrollView xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:fillViewport="true"
    tools:context=".story">
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    >
    <TextView
        android:id="@+id/textView4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:layout_weight="0"
        android:text="Your Mad Lib Story"
        android:textSize="36sp"
        android:textStyle="bold" />

    <TextView
        android:id="@+id/textView5"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"

```

```

        android:layout_weight="0"
        android:text="TextView"
        android:textSize="30sp" />

<Button
    android:id="@+id/button2"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_weight="0"
    android:onClick="another"
    android:text="MAKE ANOTHER STORY"
    android:textSize="24sp"
    app:backgroundTint="#808080" />
</LinearLayout>
</ScrollView>

```

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".words">

    <TextView
        android:id="@+id/textView3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Fill in words to complete the story"
        android:textSize="40sp"
        />

    <TextView
        android:id="@+id/leftwords"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="20sp"
        android:layout_gravity="center"
        android:text="TextView"
        android:layout_marginTop="30dp"
        />

```

```

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="20dp"
    >
    <EditText
        android:id="@+id/edittext"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="textPersonName"
        android:hint="noun"
        android:layout_marginRight="20dp"
        android:layout_marginLeft="20dp"
        />

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="OK"
        android:onClick="Ok"
        android:textColor="@color/black"
        android:backgroundTint="#808080"
        />

</LinearLayout>
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:textSize="20sp"
        android:id="@+id/word"
        android:text="please type a/an noun"
        />

</LinearLayout>

```

## Logic Code

```
package com.example.midlabs;
```

```

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    public void start(View view){
        Intent intent=new Intent(this,words.class);
        startActivity(intent);
    }

}

```

```

package com.example.midlabs;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.TextView;

import org.w3c.dom.Text;

public class story extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_story);
        Intent intent=getIntent();
        String story=intent.getStringExtra("story");
        TextView txt=(TextView)findViewById(R.id.textView5);
        txt.setText(story);
    }
}

```

```

    }
    public void another(View view){

        finish();
    }
}

```

```

package com.example.midlabs;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.text.TextUtils;
import android.util.Log;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

import java.util.ArrayList;
import java.util.List;
import java.util.Random;
import java.util.Scanner;
import java.util.regex.Matcher;
import java.util.regex.Pattern;

public class words extends AppCompatActivity {

    TextView leftwords,placingwords;
    EditText editText;
    ArrayList<String> matches;
    String story;

    int counter,index;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_words);
        leftwords=(TextView)findViewById(R.id.leftwords);
        placingwords=(TextView)findViewById(R.id.word);
    }
}

```

```

        editText=(EditText) findViewById(R.id.edittext);

//Read files
    Random rand=new Random();
    int number=rand.nextInt(5);
    Scanner scan;
    if(number==0)
        scan = new Scanner(getResources().openRawResource(R.raw.zero));
    else if(number==1)
        scan = new Scanner(getResources().openRawResource(R.raw.one));
    else if(number==2)
        scan = new Scanner(getResources().openRawResource(R.raw.two));
    else if(number==3)
        scan = new Scanner(getResources().openRawResource(R.raw.three));
    else
        scan = new Scanner(getResources().openRawResource(R.raw.four));

// read entire file
    story = "";
    while (scan.hasNextLine())
        story+= scan.nextLine();

    scan.close();
    Log.i("val",story);

    Pattern pattern = Pattern.compile("\\<(.*?)\\>");
    Matcher matcher = pattern.matcher(story);

    matches = new ArrayList<String>();
    while(matcher.find())
        matches.add(matcher.group());

    counter=matches.size();
    index=0;
    leftwords.setText(counter +"words(s) left");
    String w=matches.get(index);
    w=w.replace("<", "");
    w=w.replace(">", "");
    placingwords.setText("please type a/an "+w);

```



```

        editText.setHint(w);
    }
    public void Ok(View view){
        if(TextUtils.isEmpty(editText.getText().toString()))
        {
            editText.setError("Empty field");
            return;
        }
        Toast.makeText(this,"Great keep going",Toast.LENGTH_LONG).show();
        leftwords.setText(--counter +"words(s) left");
        String w=matches.get(index);
        story = story.replaceFirst(w, editText.getText().toString());
        if(counter==0)
        {
            Intent intent=new Intent(this,story.class);
            intent.putExtra("story",story);
            startActivity(intent);
        }
        w=matches.get(++index);
        w=w.replace("<","");
        w=w.replace(">","");
        placingwords.setText("please type a/an "+w);
        editText.setHint(w);
        editText.setText("");
    }
}

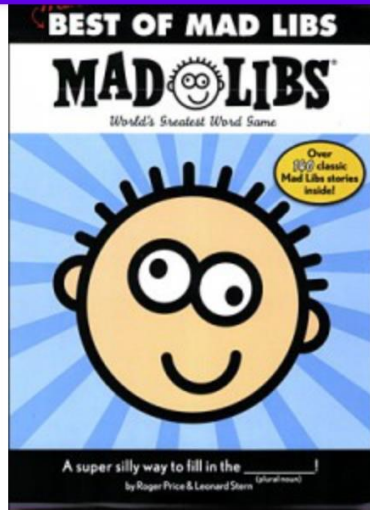
```

## Output

4:03



## Mid Labs



Welcome to Mad Libs! I will ask you to fill in words to complete the story until you are done filling in all the missing words. That's part of the fun. Click below to get started...

**GET STARTED!**



4:03



## Mid Labs

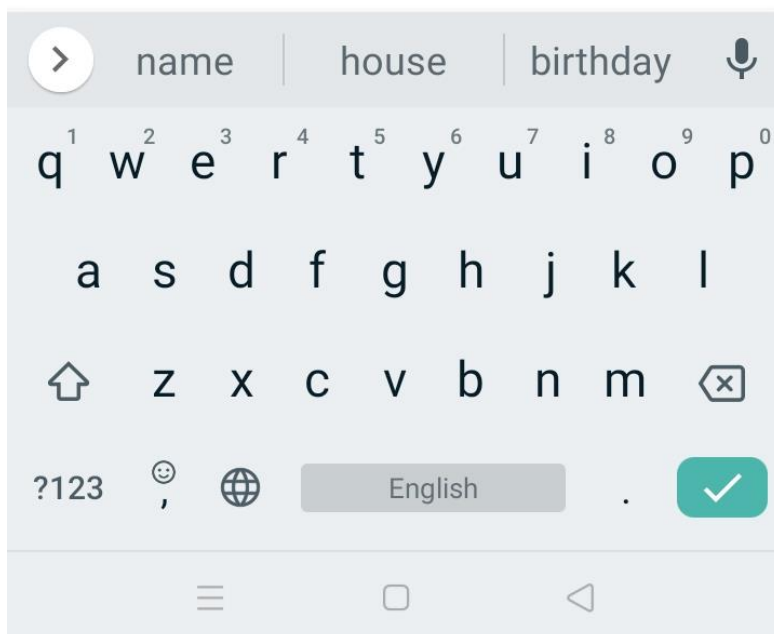
# Fill in words to complete the story

12words(s) left

brother's

OK

please type a/an Plural-Noun



4:04



## Mid Labs

# Your Mad Lib Story

Here's how you dance the Monstrosity. Stand with your feet together.

Now, move your left foot Hi to the side. Now stamp your

right foot 09 times and put your hands on your partner's

brother's . Next, you both hi slowly to the right and bend

your nose backward. For the next eight counts, both of you walk now to the left. Next, you and your partner stand back to

.....



## Activity 2:Add Contacts in Database

### Layout

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity"
    android:padding="30dp"
    >

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:layout_marginTop="100dp"
        >

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="0.5"
            android:text="Name" />

        <EditText
            android:id="@+id/text1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            />

    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
```

```
        android:orientation="horizontal"

        >

<TextView

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="0.5"
        android:text="Phone" />

<EditText
        android:id="@+id/text2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        />

</LinearLayout>
<LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"

        >

<TextView

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="0.5"
        android:text="Street" />

<EditText
        android:id="@+id/text3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        />
```

```
</LinearLayout>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"

    >

<TextView

    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="0.5"
    android:text="Email" />

<EditText
    android:id="@+id/text4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    />

</LinearLayout>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"

    >

<TextView

    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="0.5"
    android:text="City/State/Zip" />

<EditText
    android:id="@+id/text5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1"
```

```

/>

</LinearLayout>

<Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Save Contact"
    android:layout_gravity="center"
    android:backgroundTint="@color/teal_700"
    android:onClick="save"
    ></Button>
</LinearLayout>

```

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".database">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:gravity="center"
        android:text="SIBA Database"
        android:textSize="30sp"></TextView>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Name : "
        android:id="@+id/name"
        android:padding="30dp"
        ></TextView>

</LinearLayout>

```



## Logic Code

```
package com.example.addressbook;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;

public class database extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_database);
        Intent intent=getIntent();
        String name=intent.getStringExtra("name");

        TextView text=findViewById(R.id.name);
        DBHelper db=new DBHelper(this,null,null,1);

        text.setText(db.print(name));

    }
}
```

```
package com.example.addressbook;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;

public class MainActivity extends AppCompatActivity {

    DBHelper db;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
```

```

        db=new DBHelper(this,null,null,1);

    }
    public void save(View view){

        EditText Name=findViewById(R.id.text1);
        EditText Phone=findViewById(R.id.text2);
        EditText street=findViewById(R.id.text3);
        EditText Email=findViewById(R.id.text4);
        EditText city=findViewById(R.id.text5);
        db.insert(Name.getText().toString(),Phone.getText().toString(),
                street.getText().toString(),Email.getText().toString(),city.getText().toString());

        Intent intent=new Intent(this,database.class);
        intent.putExtra("name",Name.getText().toString());
        startActivity(intent);
    }
}

```

### SQLiteOpenHelper Class:

```

package com.example.addressbook;

import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

import androidx.annotation.Nullable;

public class DBHelper extends SQLiteOpenHelper {

    public DBHelper(@Nullable Context context, @Nullable String name, @Nullable SQLiteDatabase.CursorFactory factory, int version) {
        super(context, "SIBA.db", factory, 1);
    }

    @Override

```

```

public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {
    db.execSQL("DROP TABLE IF EXISTS info");
    onCreate(db);

}

@Override
public void onCreate(SQLiteDatabase db) {
    String query="CREATE TABLE info (Name TEXT,Phone TEXT,Street TEXT,Email TEXT,City Text);";
    db.execSQL(query);

}

public void insert(String Name,String Phone,String Street,String Email,String City){
    ContentValues values=new ContentValues();
    values.put("Name",Name);
    values.put("Phone",Phone);
    values.put("Street",Street);
    values.put("City",Name);
    values.put("Email",Email);
    SQLiteDatabase db=getWritableDatabase();
    db.insert("info",null,values);
    db.close();

}

public String print(String name){
    String string="";
    SQLiteDatabase db=getWritableDatabase();
    String query="SELECT * FROM info WHERE Name='"+name+"'";
    Cursor c=db.rawQuery(query,null);
    c.moveToFirst();

    while (!c.isAfterLast()){
        if(c.getString(c.getColumnIndex("Name"))!=null)
            string+=c.getString(c.getColumnIndex("Name"));

        c.moveToNext();
        break;
    }
    db.close();
}

```

```
        return string;  
    }  
}
```

Output

11:53



## AddressBook

Name

Phone

Street

Email

City/State/Zip

SAVE CONTACT



11:53



**AddressBook**

# SIBA Database

Daniyal

