Государственный Университет Молдовы

Факультет Математики и Информатики

Департамент Информатики

“Aplicatii pentru dispositive mobile”

Лабораторная работа 1

Проверил: Латул Георгий

Выполнил: Чобану Артём

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**Код программы**

Класс MainActivity:

package com.example.lab2;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.widget.Button;  
import android.widget.LinearLayout;  
import android.widget.ScrollView;  
import android.widget.TextView;  
  
import java.util.ArrayList;  
import java.util.Dictionary;  
  
public class MainActivity extends AppCompatActivity {  
  
 private final FlagQuestion[] flagQuestions = {  
 new FlagQuestion("\uD83C\uDDF2\uD83C\uDDE9", "Moldova"),  
 new FlagQuestion("\uD83C\uDDE9\uD83C\uDDEA", "Germany"),  
 new FlagQuestion("\uD83C\uDDF7\uD83C\uDDFA", "Russia")  
 };  
  
 private LinearLayout linearLayout;  
 private TextView resultTextView;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.activity\_main);  
  
 linearLayout = this.findViewById(R.id.linearLayout);  
 resultTextView = this.findViewById(R.id.resultTextView);  
  
 InitializeFlagQuestions();  
 CreateQuestionList();  
  
 UpdateResults();  
 }  
  
 private void InitializeFlagQuestions() {  
 flagQuestions[0].Answers = new String[]{"Moldova", "Germany", "France", "USA"};  
 flagQuestions[1].Answers = new String[]{"Russia", "Germany", "Moldova", "Ukraine"};  
 flagQuestions[2].Answers = new String[]{"Australia", "Russia", "France", "Spain"};  
 }  
  
 private void CreateQuestionList() {  
 for (int i = 0; i < flagQuestions.length; i++) {  
 Button button = GetButtonFromQuestion(flagQuestions[i], i);  
 linearLayout.addView(button);  
 }  
 }  
  
 private Button GetButtonFromQuestion(FlagQuestion flagQuestion, int questionId) {  
 Button button = new Button(this);  
 button.setText("Question " + questionId);  
 button.setWidth(300);  
 button.setHeight(100);  
  
 button.setOnClickListener(view -> {  
 Bundle bundle = new Bundle();  
 bundle.putString("flag", flagQuestion.Flag);  
 bundle.putStringArray("answers", flagQuestion.Answers);  
 bundle.putInt("questionId", questionId);  
  
 Intent intent = new Intent(MainActivity.this, StatisticActivity.class);  
 intent.putExtras(bundle);  
 startActivityForResult(intent, 1);  
 });  
  
 return button;  
 }  
  
 public void onActivityResult(int requestCode, int resultCode, Intent data) {  
 super.onActivityResult(requestCode, resultCode, data);  
  
 String flag = data.getStringExtra("flag");  
 String answer = data.getStringExtra("answer");  
  
 for (FlagQuestion flagQuestion : flagQuestions) {  
 if (flagQuestion.Flag.equals(flag)  
 && flagQuestion.CorrectAnswer.equals(answer)) {  
 flagQuestion.AnsweredCorrectly = true;  
 }  
 }  
  
 UpdateResults();  
 }  
  
 private void UpdateResults() {  
 int total = 0;  
  
 for (FlagQuestion flagQuestion : flagQuestions) {  
 if (flagQuestion.AnsweredCorrectly) {  
 total++;  
 }  
 }  
  
 resultTextView.setText("Total correct answers: " + total);  
 }  
}

Класс StatisticActivity:

package com.example.lab2;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.widget.Button;  
import android.widget.LinearLayout;  
import android.widget.TextView;  
  
public class StatisticActivity extends AppCompatActivity {  
  
 private String flag;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.activity\_statistic);  
  
 TextView textView = this.findViewById(R.id.textView);  
 LinearLayout linearLayout = this.findViewById(R.id.linearLayout);  
  
 Bundle b = this.getIntent().getExtras();  
  
 int questionId = b.getInt("questionId");  
 this.setTitle("Question " + questionId);  
  
 flag = b.getString("flag");  
 textView.setText(flag);  
  
 String[] answers = b.getStringArray("answers");  
 for (String answer : answers) {  
 Button button = GetAnswerButton(answer);  
 linearLayout.addView(button);  
 }  
 }  
  
 private Button GetAnswerButton(String answer) {  
 Button button = new Button(this);  
 button.setText(answer);  
 button.setWidth(300);  
 button.setHeight(100);  
  
 button.setOnClickListener(view -> {  
 Intent intent = new Intent();  
 intent.putExtra("answer", answer);  
 intent.putExtra("flag", flag);  
  
 this.setResult(RESULT\_OK, intent);  
 finish();  
 });  
  
 return button;  
 }  
}

Класс FlagQuestion:

package com.example.lab2;  
  
public class FlagQuestion {  
 public String Flag;  
 public String CorrectAnswer;  
  
 public String[] Answers;  
  
 public boolean AnsweredCorrectly;  
  
 public FlagQuestion(String flag, String correctAnswer) {  
 Flag = flag;  
 CorrectAnswer = correctAnswer;  
 }  
}

**Скриншоты программы**



