SOURCE CODE

JAVA FILE

```
package com.example.money;
import android.Manifest;
import android.content.Intent;
import android.content.pm.PackageManager;
import android.os.Bundle;
import android.speech.RecognizerIntent;
import android.widget.Toast;
import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.core.content.ContextCompat;
import java.util.ArrayList;
public class PinActivity extends AppCompatActivity {
    private static final int SPEECH_CODE = 100;
    private static final int PERMISSION_REQUEST_CODE = 1;
    private final String correctPin = "1234";
    @Override
    protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_pin);
        // Request microphone permission
        if (ContextCompat.checkSelfPermission(this,
Manifest.permission.RECORD_AUDIO)
                != PackageManager.PERMISSION_GRANTED) {
ActivityCompat.requestPermissions(this,
                    new String[]{Manifest.permission.RECORD_AUDIO},
                    PERMISSION_REQUEST_CODE);
        } else {
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startSpeech();
        }
    }
    // Start voice recognition
    private void startSpeech() {
        Intent intent = new Intent(RecognizerIntent.ACTION_RECOGNIZE_SPEECH);
intent.putExtra(RecognizerIntent.EXTRA_LANGUAGE_MODEL,
RecognizerIntent.LANGUAGE_MODEL_FREE_FORM);
intent.putExtra(RecognizerIntent.EXTRA_PROMPT, "Say your 4-digit PIN");
        if (intent.resolveActivity(getPackageManager()) != null) {
startActivityForResult(intent, SPEECH_CODE);
        } else {
Toast.makeText(this, "Speech recognition not supported.",
Toast.LENGTH_LONG).show();
        }
    }
    // Handle permission result
    @Override
    public void onRequestPermissionsResult(int requestCode,
                                           @NonNull String[] permissions,
                                           @NonNull int[] grantResults) {
super.onRequestPermissionsResult(requestCode, permissions, grantResults);

        if (requestCode == PERMISSION_REQUEST_CODE) {
            if (grantResults.length> 0 &&
grantResults[0] == PackageManager.PERMISSION_GRANTED) {
startSpeech();
            } else {
Toast.makeText(this, "Microphone permission denied",
Toast.LENGTH_SHORT).show();
            }
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        }
    }
    // Handle voice input result
    @Override
    protected void onActivityResult(int requestCode, int resultCode, @Nullable Intent
data) {
super.onActivityResult(requestCode, resultCode, data);
        if (requestCode == SPEECH_CODE &&resultCode == RESULT_OK && data
!= null) {
            ArrayList<String> results =
data.getStringArrayListExtra(RecognizerIntent.EXTRA_RESULTS);
            if (results != null && !results.isEmpty()) {
                String userInput = results.get(0).replaceAll("\\s+", "").trim(); // Remove
spaces
                if (userInput.equals(correctPin)) {
startActivity(new Intent(this, VerificationActivity.class));
                } else {
Toast.makeText(this, "Incorrect PIN. Try again.", Toast.LENGTH_SHORT).show();
startSpeech();
  }
  } else {
Toast.makeText(this, "No input detected. Try again.",
Toast.LENGTH_SHORT).show();
startSpeech();
  }
  }
  }
}
```

XML CODE

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayoutxmlns:android="http://schemas.a
ndroid.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:id="@+id/main"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:background="@drawable/img_4"
tools:context=".PinActivity">

</androidx.constraintlayout.widget.ConstraintLayout>
```