

IT2010 – Mobile Application Development BSc (Hons) in Information Technology 2nd Year Faculty of Computing SLIIT

2023 – Lab Exam 01 Report

Student ID	IT22077424
Batch	3.02
Marks	
Code Quality and Organization (2 Points)	
2. Functionality (4 Points)	
3. Creativity and User Interface	
Design (2 Points)	
4. Performance and Stability (2 Point)	
Total: 10 Marks	
Evaluator	

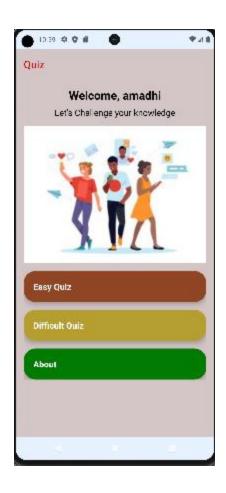
Description:

My app is a simple random questioner game. The user picks the easy mode or difficult mode. There are 14 questions. 7 questions for each category hard and simple. After answering user can see score and the high score. After every quiz you can see a fun fact

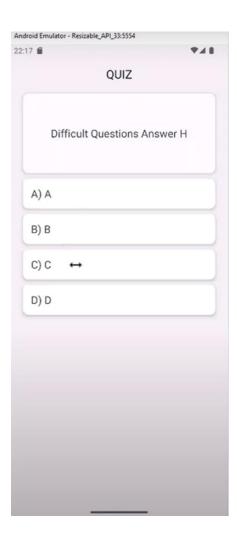
Instructions:

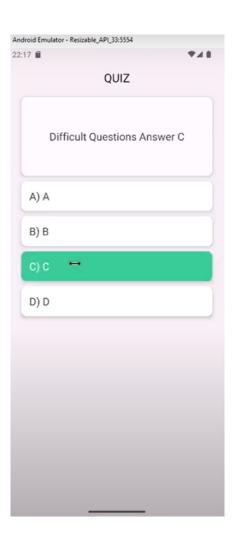
Select the mode then answer each question by clicking on the answers

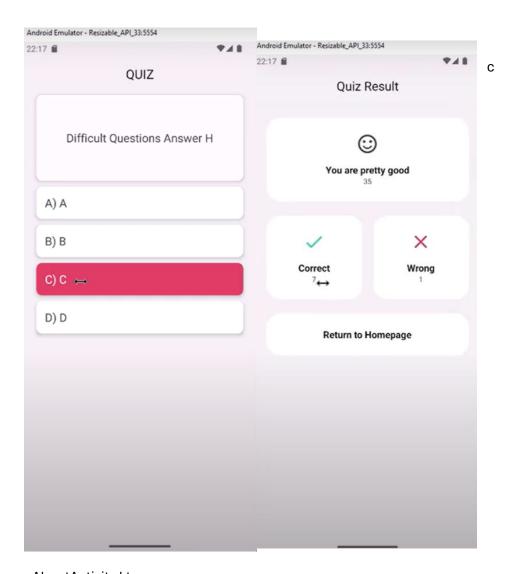
Screenshots:











AboutActivity.kt

```
import android.content.ActivityNotFoundException
import android.content.Intent
import android.content.SharedPreferences
import android.content.res.Configuration
import android.net.Uri
import android.os.Bundle
import androidx.appcompat.app.AppCompatActivity
import com.google.android.material.card.MaterialCardView

class AboutActivity: AppCompatActivity() {
   private lateinit var developerCard: MaterialCardView

   override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_about)

        developerCard = findViewById(R.id.developerCard)
```

```
// Your existing code for developerCard click listener
    developerCard.setOnClickListener {
        val uri = Uri.parse("https://www.instagram.com/developer")
        val likeIntent = Intent(Intent.ACTION_VIEW, uri)
        likeIntent.setPackage("com.instagram.android")
        try {
            startActivity(likeIntent)
        } catch (e: ActivityNotFoundException) {
                startActivity(Intent(Intent.ACTION_VIEW,

Uri.parse("https://www.instagram.com/developer")))
        }
    }
}

override fun onBackPressed() {
    super.onBackPressed()
    startActivity(Intent(this, MainActivity::class.java))
        finish()
}
```

BasicQuiz.kt

```
package com.lab_exam.myapplication
import android.annotation.SuppressLint
import android.content.Context
import android.content.DialogInterface
import android.content.Intent
import android.os.Bundle
import android.os.Bundle
import android.os.Handler
import android.widget.TextView
import android.widget.TextView
import com.google.android.material.dialog.MaterialAlertDialogBuilder
import org.json.JSONException
import org.json.JSONException
import java.io.IOException
import java.io.IOException
import java.io.InputStream

class BasicQuiz : AppCompatActivity() {

    private lateinit var quiztext: TextView
    private lateinit var bans: TextView
    private lateinit var cans: TextView
    private lateinit var dans: TextView
    private lateinit var funFactTextView: TextView
    private var questionItems = mutableListOf<QuestionsItems>()
    private var currentQuestions = 0
    private var correct = 0
    private var wrong = 0

// Array of fun facts
```

```
private val funFacts = arrayOf(
override fun onCreate(savedInstanceState: Bundle?) {
   super.onCreate(savedInstanceState)
   setContentView(R.layout.activity quiz)
   quiztext = findViewById(R.id.quizText)
   aans = findViewById(R.id.aanswer)
   bans = findViewById(R.id.banswer)
   cans = findViewById(R.id.canswer)
   funFactTextView = findViewById(R.id.funFactTextView) // Initialize
   displayHighScore()
   loadAllQuestions()
   questionItems.shuffle()
   setQuestionScreen(currentQuestions)
    aans.setOnClickListener {
        checkAnswer(questionItems[currentQuestions].answer1, aans)
   bans.setOnClickListener {
    cans.setOnClickListener {
    dans.setOnClickListener {
   setRandomFunFact()
```

```
val highScoreTextView =
findViewById<TextView>(R.id.highScoreTextView)
        val sharedPreferences = getSharedPreferences("HighScores",
        val highScore = sharedPreferences.getInt("highScore", 0)
            selectedView.setTextColor(Color.GREEN)
            selectedView.setTextColor(Color.RED)
        Handler().postDelayed({
                setQuestionScreen(currentQuestions)
                resetAnswerColors()
                setRandomFunFact()
                intent.putExtra("correct", correct)
                intent.putExtra("wrong", wrong)
                startActivity(intent)
                finish()
```

```
private fun setQuestionScreen(currentQuestions: Int) {
    val currentItem = questionItems[currentQuestions]
    quiztext.text = currentItem.questions
    aans.text = currentItem.answer1
   bans.text = currentItem.answer2
    cans.text = currentItem.answer3
    dans.text = currentItem.answer4
    questionItems = mutableListOf()
    val jsonQuiz = loadJsonFromAsset("easyquestions.json")
        val jsonObject = JSONObject(jsonQuiz)
        val questions = jsonObject.getJSONArray("easyquestions")
            val questionString = question.getString("question")
            val answer1String = guestion.getString("answer1")
            val answer2String = question.getString("answer2")
            val answer3String = question.getString("answer3")
            val answer4String = question.getString("answer4")
            val correctString = question.getString("correct")
            questionItems.add(QuestionsItems(
                questionString,
                answer1String,
                answer4String,
    } catch (e: JSONException) {
        e.printStackTrace()
        val inputStream: InputStream = assets.open(s)
        val size = inputStream.available()
        val buffer = ByteArray(size)
        inputStream.read(buffer)
        inputStream.close()
        json = String(buffer, charset("UTF-8"))
    } catch (e: IOException) {
        e.printStackTrace()
```

```
aans.setTextColor(Color.BLACK)
        bans.setTextColor(Color.BLACK)
        cans.setTextColor(Color.BLACK)
        dans.setTextColor(Color.BLACK)
        val randomIndex = (0 until funFacts.size).random()
        materialAlertDialogBuilder.setTitle(R.string.app name)
        materialAlertDialogBuilder.setNegativeButton(android.R.string.no) {
dialogInterface: DialogInterface, i: Int ->
            dialogInterface.dismiss()
        materialAlertDialogBuilder.setPositiveButton(android.R.string.yes) {
dialogInterface: DialogInterface, i: Int ->
            startActivity(Intent(this@BasicQuiz, MainActivity::class.java))
            finish()
        materialAlertDialogBuilder.show()
```

DifficultQuiz.kt

```
import android.content.DialogInterface
import android.content.Intent
import android.graphics.Color
import android.os.Bundle
import android.os.Handler
import android.widget.TextView
import androidx.appcompat.app.AppCompatActivity
import com.google.android.material.dialog.MaterialAlertDialogBuilder
import android.content.Context
import java.io.InputStream

class DifficultQuiz : AppCompatActivity() {
    private lateinit var quiztext: TextView
```

```
private lateinit var aans: TextView
private lateinit var funFactTextView: TextView // Added
override fun onCreate(savedInstanceState: Bundle?) {
    super.onCreate(savedInstanceState)
   setContentView(R.layout.activity quiz)
    quiztext = findViewById(R.id.quizText)
   aans = findViewById(R.id.aanswer)
   bans = findViewById(R.id.banswer)
   cans = findViewById(R.id.canswer)
   dans = findViewById(R.id.danswer)
   highScoreTextView = findViewById(R.id.highScoreTextView) // Added
    funFactTextView = findViewById(R.id.funFactTextView) // Added
   loadAllQuestions()
   questionItems.shuffle()
    setQuestionScreen(currentQuestions)
    aans.setOnClickListener {
        checkAnswer(aans.text.toString(), aans)
    bans.setOnClickListener {
       checkAnswer(bans.text.toString(), bans)
    cans.setOnClickListener {
       checkAnswer(cans.text.toString(), cans)
    dans.setOnClickListener {
       checkAnswer(dans.text.toString(), dans)
   setRandomFunFact()
private fun setQuestionScreen(currentQuestions: Int) {
   quiztext.text = questionItems[currentQuestions].questions
   aans.text = questionItems[currentQuestions].answer1
   bans.text = questionItems[currentQuestions].answer2
   cans.text = questionItems[currentQuestions].answer3
```

```
val correctAnswer = questionItems[currentQuestions].correct
if (selectedAnswer == correctAnswer) {
    selectedView.setTextColor(Color.GREEN)
    selectedView.setTextColor(Color.RED)
Handler().postDelayed({
        setQuestionScreen(currentQuestions)
        resetAnswerColors()
        val intent = Intent(this@DifficultQuiz,
        intent.putExtra("wrong", wrong)
        startActivity(intent)
        finish()
}, 500)
questionItems = mutableListOf()
    val jsonObject = JSONObject(jsonQuiz)
    val questions = jsonObject.getJSONArray("difficultquestions")
    for (i in 0 until questions.length()) {
        val question = questions.getJSONObject(i)
        val questionString = question.getString("question")
        val answer1String = question.getString("answer1")
        val answer2String = question.getString("answer2")
```

```
val answer3String = question.getString("answer3")
                val answer4String = question.getString("answer4")
                val correctString = question.getString("correct")
                questionItems.add(QuestionsItems(questionString,
answer1String, answer2String, answer3String, answer4String, correctString))
        } catch (e: Exception) {
            e.printStackTrace()
    private fun loadJsonFromAsset(s: String): String {
            val inputStream = assets.open(s)
            val size = inputStream.available()
            val buffer = ByteArray(size)
            inputStream.read(buffer)
            inputStream.close()
            json = String(buffer, charset("UTF-8"))
        } catch (e: Exception) {
            e.printStackTrace()
    private fun resetAnswerColors() {
        cans.setTextColor(Color.BLACK)
        dans.setTextColor(Color.BLACK)
        val sharedPreferences = getSharedPreferences("HighScores",
Context.MODE PRIVATE)
        val highScore = sharedPreferences.getInt("highScore", 0)
        val funFacts = arrayOf(
statues.",
```

MainActivity.kt

```
import android.content.DialogInterface
import android.content.Intent
import android.content.SharedPreferences
import android.content.SharedPreferences
import android.content.res.Configuration
import android.os.Bundle
import androidx.appcompat.app.AppCompatActivity
import com.google.android.material.dialog.MaterialAlertDialogBuilder
import com.google.android.material.card.MaterialCardView

class MainActivity: AppCompatActivity() {
    private lateinit var easycard: MaterialCardView
    private lateinit var difficultcard: MaterialCardView
    private lateinit var aboutcard: MaterialCardView

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)
```

```
val sharedPreferences: SharedPreferences =
getSharedPreferences(MyPREFERENCES, MODE PRIVATE)
        easycard = findViewById(R.id.easyCard)
        difficultcard = findViewById(R.id.difficultCard)
        aboutcard = findViewById(R.id.aboutCard)
        easycard.setOnClickListener {
            startActivity(Intent(this@MainActivity, BasicQuiz::class.java))
            finish()
        difficultcard.setOnClickListener {
            startActivity(Intent(this@MainActivity,
DifficultQuiz::class.java))
            finish()
        aboutcard.setOnClickListener {
           startActivity(Intent(this@MainActivity,
            finish()
        }
        super.onBackPressed()
        val materialAlertDialogBuilder = MaterialAlertDialogBuilder(this)
        materialAlertDialogBuilder.setTitle(R.string.app name)
        materialAlertDialogBuilder.setNegativeButton(android.R.string.no) {
dialogInterface: DialogInterface, i: Int ->
            dialogInterface.dismiss()
        materialAlertDialogBuilder.setPositiveButton(android.R.string.yes) {
dialogInterface: DialogInterface, i: Int ->
            finish()
        materialAlertDialogBuilder.show()
        const val MyPREFERENCES = "QuizPrefs"
```

QuestionsItems.kt

```
package com.lab_exam.myapplication

class QuestionsItems(
   var questions: String,
   var answer1: String,
   var answer2: String,
   var answer3: String,
   var answer3: String,
```

```
ResultActivity.kt package com.lab exam.myapplication
import android.content.Intent
import android.content.SharedPreferences
import android.content.res.Configuration
import android.widget.ImageView
import android.widget.TextView
import com.google.android.material.card.MaterialCardView
class ResultActivity : AppCompatActivity() {
   private lateinit var home: MaterialCardView
   private lateinit var resultImage: ImageView
   private lateinit var sharedPreferences: SharedPreferences
   override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity result)
        home = findViewById(R.id.returnHome)
        correctt = findViewById(R.id.correctScore)
        wrongt = findViewById(R.id.wrongScore)
        resultinfo = findViewById(R.id.resultInfo)
        resultscore = findViewById(R.id.resultScore)
        resultImage = findViewById(R.id.resultImage)
        sharedPreferences = getSharedPreferences("HighScores",
        val correct = intent.getIntExtra("correct", 0)
        val score = correct * 5
        correctt.text = correct.toString()
        wrongt.text = wrong.toString()
        resultscore.text = score.toString()
        val highScoreTextView =
findViewById<TextView>(R.id.highScoreTextView)
        if (score > highScore) {
            with(sharedPreferences.edit()) {
               putInt("highScore", score)
```

```
apply()
}

when {
    correct >= 0 && correct <= 2 -> {
        resultinfo.text = "You have to take the test again"
        resultImage.setImageResource(R.drawable.ic_sad)
}

correct in 3..5 -> {
        resultinfo.text = "You have to try a little more"
        resultImage.setImageResource(R.drawable.ic_neutral)
}

correct in 6..8 -> {
        resultinfo.text = "You are pretty good"
        resultImage.setImageResource(R.drawable.ic_smile)
}

else -> {
        resultinfo.text = "You are very good congratulations"
        resultImage.setImageResource(R.drawable.ic_sad)
}

home.setOnClickListener {
        startActivity(Intent(this@ResultActivity,
MainActivity::class.java))
        finish()
}
}
```

SplashActivity.kt

```
package com.lab_exam.myapplication
import android.content.Context
import android.content.Intent
import android.content.SharedPreferences
import android.content.res.Configuration
import android.os.Bundle
import androidx.appcompat.app.AppCompatActivity
import androidx.appcompat.app.AppCompatDelegate

class SplashActivity : AppCompatActivity() {
    companion object {
        var checked: Int = 0
            const val MyPREFERENCES = "QuizPrefs"
    }

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_splash)

    val sharedPreferences: SharedPreferences =
```

```
AppCompatDelegate. MODE NIGHT YES -> 1
        checked = sharedPreferences.getInt("checked", default1)
AppCompatDelegate.setDefaultNightMode(AppCompatDelegate.MODE NIGHT NO)
AppCompatDelegate.setDefaultNightMode(AppCompatDelegate.MODE NIGHT YES)
AppCompatDelegate.setDefaultNightMode(AppCompatDelegate.MODE NIGHT FOLLOW SYS
AppCompatDelegate.setDefaultNightMode(AppCompatDelegate.MODE NIGHT AUTO BATTE
                Thread.sleep(2000)
            } catch (ignored: InterruptedException) {
MainActivity::class.java))
        mSplashThread.start()
```

assets

difficultquestions.json

Easyquestions.json

```
{
  "easyquestions": [
  {
```

```
"answer4": "D) chaina",
"answer4": "D) medusa",
```

```
"answer1": "A) Dog",
    "answer2": "B) Wolf",
    "answer3": "C) Cat",
    "answer4": "D) Horse",
    "correct": "A) Dog"
}
]
```

Res

Drawable

lc_correct.xml

Ic_lanuch_background.xml

```
android:strokeColor="#33FFFFFF" />
<path
    android:strokeColor="#33FFFFFF" />
    android:fillColor="#00000000"
    android:strokeColor="#33FFFFFF" />
    android:pathData="M69,0L69,108"
    android:fillColor="#00000000"
    android:pathData="M89,0L89,108"
    android:strokeColor="#33FFFFFF" />
    android:pathData="MO,19L108,19"
    android:strokeColor="#33FFFFFF" />
<path
    android:pathData="M0,39L108,39"
    android:fillColor="#00000000"
```

```
android:strokeColor="#33FFFFFF" />
    android:fillColor="#00000000"
    android:pathData="M0,59L108,59"
    android:strokeWidth="0.8"
    android:fillColor="#00000000"
    android:pathData="M0,69L108,69"
    android:strokeWidth="0.8"
<path
    android:pathData="M0,79L108,79"
    android:strokeColor="#33FFFFFF" />
    android:pathData="M0,89L108,89"
    android:fillColor="#00000000"
    android:strokeWidth="0.8"
   android:strokeColor="#33FFFFFF" />
    android:pathData="M19,29L89,29"
   android:strokeColor="#33FFFFFF" />
<path
<path
<path
<path
    android:fillColor="#00000000"
    android:pathData="M19,79L89,79"
<path
```

```
android:fillColor="#00000000"
    android:pathData="M29,19129,89"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#00000000"
    android:pathData="M39,19139,89"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#0000000"
    android:pathData="M49,19149,89"
    android:strokeWidth="0.8"
    android:strokeWidth="0.8"
    android:fillColor="#0000000"
    android:pathData="M59,19159,89"
    android:strokeWidth="0.8"
    android:strokeWidth="0.8"
    android:strokeWidth="0.8"
    android:strokeWidth="0.8"
    android:fillColor="#0000000"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
```

lc_hitory.png



```
lc_luncher_foreground.xml <vector
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:aapt="http://schemas.android.com/aapt"
    android:width="108dp"
    android:height="108dp"
    android:viewportWidth="108"
    android:viewportHeight="108">
    <path android:pathData="M31,63.928c0,0 6.4,-11 12.1,-13.1c7.2,-2.6 26,-</pre>
```

```
1.4 26,-1.4138.1,38.1L107,108.9281-32,-1L31,63.928z">
            <gradient
                android:endY="92.4963"
                android:startX="42.9492"
                android:startY="49.59793"
                android:type="linear">
                    android:color="#44000000"
                    android:offset="0.0" />
                    android:color="#00000000"
                    android:offset="1.0" />
            </gradient>
    <path
        android:fillColor="#FFFFFF"
        android:fillType="nonZero"
        android:strokeColor="#00000000" />
</vector>
```

Ic_neutral.xml

Ic sad.xml

```
<vector android:height="24dp" android:tint="@color/secondary_text_color"
    android:viewportHeight="24" android:viewportWidth="24"
    android:width="24dp"</pre>
```

Ic smile.xml

lc_wrong.xml

logoquiz.png



selector_answer_text.xml

Selector_green.xml

selector_red.xml

```
<?xml version="1.0" encoding="utf-8"?>
<selector xmlns:android="http://schemas.android.com/apk/res/android">
<item android:state_pressed="true" android:drawable="@color/red_pressed"/>
<item android:state_focused="true" android:drawable="@color/red_pressed"/>
<item android:drawable="@color/red_default"/>
</selector>
```

Res

Layout

activity_about.xml

```
xmlns:app="http://schemas.android.com/apk/res-auto"
android:layout width="match parent"
android:layout height="match parent"
android:orientation="vertical"
    android:elevation="0dp"
    android:layout width="match parent"
    android:layout height="?attr/actionBarSize">
    <com.google.android.material.appbar.MaterialToolbar</pre>
        app:title="About"
        android:layout width="match parent"
        android:layout height="match parent"/>
</com.google.android.material.appbar.AppBarLayout>
<com.google.android.material.card.MaterialCardView</pre>
    app:cardCornerRadius="25dp"
    app:strokeWidth="0dp"
    android:layout margin="25dp"
    android: layout width="match parent"
    android:layout height="wrap content">
    <LinearLayout
        android:gravity="center"
        android:orientation="vertical"
        android:layout width="match parent"
        android:layout height="wrap content">
        <ImageView</pre>
            android:layout width="100dp"
            android:layout height="100dp"
            android:contentDescription="@null"
            android:scaleType="centerCrop"/>
        <TextView
            android:textSize="24sp"
            android:textStyle="bold"
            android:layout marginTop="15dp"
            android:layout width="wrap content"
            android:layout height="wrap content"/>
        <TextView
            android:textSize="16sp"
            android:layout marginTop="10dp"
            android:text="@string/app version v1 0"
```

```
android:layout width="wrap content"
            android:layout height="wrap content"/>
    </LinearLayout>
</com.google.android.material.card.MaterialCardView>
<com.google.android.material.card.MaterialCardView</pre>
    android:id="@+id/developerCard"
    app:cardCornerRadius="25dp"
   app:strokeWidth="0dp"
   android:layout marginStart="25dp"
    android:layout marginBottom="25dp"
    android: layout width="match parent"
    android:layout height="wrap content">
    <LinearLayout
        android:gravity="center"
        android:layout width="match parent"
        android:layout height="wrap content">
        <TextView
            android:textStyle="bold"
            android:layout marginTop="15dp"
            android:layout width="wrap content"
            android:layout height="wrap content" />
        <TextView
            android:textSize="16sp"
            android:textColor="@color/black"
            android:layout marginTop="10dp"
            android:layout width="wrap content"
            android:layout height="wrap content"/>
    </LinearLayout>
</com.google.android.material.card.MaterialCardView>
<com.google.android.material.card.MaterialCardView</pre>
    android:layout marginStart="25dp"
    android:layout marginEnd="25dp"
    android:layout marginBottom="25dp"
    android: layout width="match parent"
    android:layout height="wrap content">
    <LinearLayout
        android:gravity="center"
        android:orientation="vertical"
        android:layout width="match parent"
        android:layout height="wrap content">
       <TextView
```

activity_difficult_quiz.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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"
    tools:context=".DifficultQuiz">
</androidx.constraintlayout.widget.ConstraintLayout>
```

activity main.xml

```
app:title="Quiz"
        app:titleTextColor="@color/red default" />
</com.google.android.material.appbar.AppBarLayout>
<androidx.core.widget.NestedScrollView</pre>
    android:layout width="match parent"
    app:layout behavior="@string/appbar scrolling view behavior">
    <LinearLavout
        android:layout width="match parent"
        android:layout height="wrap content"
        <TextView
            android:id="@+id/welcomeTextView"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout gravity="center horizontal"
            android:layout marginBottom="8dp"
            android:text="Welcome, amadhi"
            android:textColor="@color/black"
            android:textStyle="bold" />
        <TextView
            android:layout width="wrap content"
            android:layout gravity="center horizontal"
            android:text="Let's Challenge your knowledge"
            android:textColor="@color/black"
        <ImageView</pre>
            android:layout width="match parent"
            android:layout height="wrap content"
            android:layout marginBottom="16dp"
            android:adjustViewBounds="true"
            android:scaleType="fitXY"
        <com.google.android.material.card.MaterialCardView</pre>
            android:id="@+id/easyCard"
            android:layout width="match parent"
```

```
android:layout height="wrap content'
   android:layout marginBottom="16dp"
   app:cardBackgroundColor="@color/brown"
   app:cardElevation="8dp"
   app:strokeWidth="0dp">
   <LinearLayout
        android:layout width="match parent"
        <TextView
            android:layout width="wrap content"
            android:textStyle="bold" />
    </LinearLayout>
</com.google.android.material.card.MaterialCardView>
<com.google.android.material.card.MaterialCardView</pre>
   android:layout width="match parent"
   android:layout height="wrap content"
   app:cardBackgroundColor="@color/yellow"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:layout gravity="center"
        android:orientation="vertical"
        <TextView
            android:layout width="wrap content"
            android:textSize="18sp"
    </LinearLayout>
<com.google.android.material.card.MaterialCardView</pre>
   android:id="@+id/aboutCard"
   android:layout width="match parent"
   android:layout height="wrap content"
```

```
app:cardElevation="8dp"
                <LinearLayout
                    android:layout width="match parent"
                    android:layout height="wrap content"
                    android:layout gravity="center"
                    android:orientation="vertical"
                    <TextView
                        android:layout width="wrap content"
                        android:layout height="wrap content"
                        android:text="About"
                        android:textColor="@color/white"
                        android:textSize="18sp"
            </com.google.android.material.card.MaterialCardView>
        </LinearLayout>
    </androidx.core.widget.NestedScrollView>
</androidx.coordinatorlayout.widget.CoordinatorLayout>
```

activity_questions_items.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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"
    tools:context=".QuestionsItems">
</androidx.constraintlayout.widget.ConstraintLayout>
```

activity quiz.xml

```
android:layout marginTop="16dp"
    android:layout gravity="center"/>
<com.google.android.material.appbar.AppBarLayout</pre>
    android:elevation="0dp"
    android:layout gravity="center"
   android:layout height="?attr/actionBarSize">
        app:title="QUIZ"
        android:layout_width="match_parent"
        android:layout_height="match_parent"/>
    android:layout width="match parent"
    android:layout height="wrap content">
    <LinearLayout
        android:layout gravity="center"
        android:layout width="match parent"
        android:layout height="150dp">
        <TextView
            android:layout_width="match_parent"
            android:layout height="match parent"
            android:gravity="center"
    </LinearLayout>
</com.google.android.material.card.MaterialCardView>
<com.google.android.material.card.MaterialCardView</pre>
    style="@style/TestCard"
    android:layout width="match parent"
    android:layout height="wrap content">
    <LinearLayout
        android:layout gravity="center"
        android:layout width="match parent"
        android:layout height="wrap content">
        <TextView
            android:layout width="match parent"
            android:layout height="match parent"
            android:gravity="center vertical"
            android:textColor="@color/black"
```

```
<com.google.android.material.card.MaterialCardView</pre>
    style="@style/TestCard"
   android:layout width="match parent"
    android:layout height="wrap content">
    <LinearLayout
        android:layout width="match parent"
        android:layout height="wrap content">
        <TextView
            android:layout_height="match parent"
            android:textSize="20sp" />
</com.google.android.material.card.MaterialCardView>
<com.google.android.material.card.MaterialCardView</pre>
   style="@style/TestCard"
   android:layout width="match parent"
   android:layout height="wrap content">
        android:layout_gravity="center"
        android:layout width="match parent"
        android:layout height="wrap content">
        <TextView
            android:id="@+id/canswer"
            android:layout height="match parent"
            android:textColor="@color/black"
    </LinearLayout>
    style="@style/TestCard"
   android:layout width="match parent"
    android:layout height="wrap content">
    <LinearLayout
        android:layout gravity="center"
        android:layout width="match parent"
        android:layout height="wrap content">
        <TextView
```

```
android:layout width="match parent"
               android:layout height="match parent"
                android:gravity="center vertical"
               android:textColor="@color/black"
               android:textSize="20sp" />
       </LinearLayout>
   <TextView
       android:id="@+id/funFactTextView"
       android:layout width="wrap content"
       android:layout height="wrap content"
       android:textColor="@color/black"
       android:layout marginTop="16dp"
       android:layout gravity="center"
       android:elevation="4dp"
       android:gravity="center"
       android:lineSpacingMultiplier="1.2"/>
</LinearLavout>
```

activity results.xmls

```
android:layout marginStart="25dp"
    android:layout marginTop="25dp"
    android:layout width="match parent"
    android:layout height="wrap content">
    <LinearLayout
        android:orientation="vertical"
        android:layout_width="match parent"
        <ImageView</pre>
            android:layout height="40dp"/>
        <TextView
            android:layout width="wrap content"
            android:layout height="wrap content"
            android:textColor="@color/black"
            android:layout marginTop="10dp"
            android:layout gravity="center horizontal"/>
        <TextView
            android:id="@+id/resultInfo"
            android:layout_marginTop="15dp"
            android:textSize="17sp"
            android:text="Result Info"
            android:layout width="wrap content"
            android:layout height="wrap content"/>
        <TextView
            android:id="@+id/resultScore"
            android:textColor="@color/black"
            android:textSize="13sp"
            android:text="Score"
            android:layout width="wrap content"
            android:layout height="wrap content"/>
    </LinearLayout>
<LinearLayout
    android:layout width="match parent"
   android:layout height="wrap content">
    <com.google.android.material.card.MaterialCardView</pre>
        app:cardBackgroundColor="@color/card background"
        app:strokeWidth="0dp"
```

```
android:layout marginEnd="10dp'
    android:layout marginStart="25dp"
    android:layout marginTop="25dp"
    android:layout_weight="1"
    android:layout_width="0dp"
    android:layout height="match parent">
    <LinearLayout
        android:gravity="center"
        android:orientation="vertical"
        android:layout height="150dp">
        <ImageView</pre>
            android:layout width="40dp"
            android:layout height="40dp"/>
        <TextView
            android:layout marginTop="15dp"
            android:textColor="@color/text color"
            android:textSize="17sp"
            android:layout width="wrap content"
            android:layout height="wrap content"/>
        <TextView
            android:id="@+id/correctScore"
            android:text="0"
            android:layout width="wrap content"
            android:layout height="wrap content"/>
    </LinearLayout>
<com.google.android.material.card.MaterialCardView</pre>
    app:strokeWidth="0dp"
    android:layout marginEnd="25dp"
    android:layout marginStart="10dp"
    android:layout_marginTop="25dp"
   android:layout weight="1"
    android:layout height="match parent">
        android:orientation="vertical"
        android:layout height="150dp">
        <ImageView</pre>
            android:layout width="40dp"
            android:layout height="40dp"/>
```

```
<TextView
                    android:layout marginTop="15dp"
                    android:textColor="@color/text color"
                    android:textStyle="bold"
                    android:textSize="17sp"
                    android:text="Wrong"
                    android:layout width="wrap content"
                    android:layout height="wrap content"/>
                <TextView
                    android:id="@+id/wrongScore"
                    android:textColor="@color/black"
                    android:text="0"
                    android:layout width="wrap content"
                    android:layout height="wrap content"/>
            </LinearLayout>
        </com.google.android.material.card.MaterialCardView>
        android:id="@+id/returnHome"
        app:strokeWidth="0dp"
        android:layout marginEnd="25dp"
        android:layout marginStart="25dp"
        android:layout marginTop="25dp"
        android: layout width="match parent"
        android:layout height="wrap content">
        <LinearLayout
            android:layout width="match parent"
            android:layout height="75dp"
            android:gravity="center"
            android:orientation="vertical">
            <TextView
                android:id="@+id/resultTextview"
                android:layout width="wrap content"
                android:layout height="wrap content"
                android:layout marginTop="15dp"
                android:text="Return to Homepage"
                android:textColor="@color/text color"
                android:textSize="24sp"
        </LinearLayout>
</LinearLayout>
```

activity_splash.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"</pre>
```

```
android:layout width="match parent"
android:layout height="match parent"
<LinearLayout
   android:layout width="match parent"
    android:layout height="match parent"
   android:gravity="center">
        android:layout width="100dp"
        android:layout height="100dp"/>
    <TextView
        android:layout width="match parent"
        android:layout height="wrap content"
        android:layout marginTop="20dp"
        android:gravity="center"
        android:textColor="@color/black"
       android:textStyle="bold" />
</LinearLayout>
```

Res

Values

colors.xml

strings.xml

themes.xml

```
parent="ThemeOverlay.Material3.MaterialAlertDialog.Centered">
        <item name="colorPrimary">@color/card background</item>
       <item name="colorOnSecondary">@color/black</item>
       <item name="android:background">@color/card background</item>
name="buttonBarPositiveButtonStyle">@style/PositiveButtonStyle</item>
name="buttonBarNegativeButtonStyle">@style/NegativeButtonStyle</item>
parent="Widget.MaterialComponents.Button.TextButton">
        <item name="android:textColor">@color/text color</item>
        <item name="android:textStyle">normal</item>
parent="Widget.MaterialComponents.Button.TextButton.Dialog">
        <item name="textAllCaps">false</item>
    </style>
       <item name="cardCornerRadius">10dp</item>
       <item name="strokeWidth">0dp</item>
    <style name="Theme.MyApplication" parent="Base.Theme.MyApplication" />
</resources>
```

themes.xml(night)

Res

#i haven't add mipmap and xml folder since it's the default