12. Develop an application to Play Quiz and get the Score Board.

import 'package:flutter/material.dart';

void main() {

runApp(QuizApp());

}

class QuizApp extends StatelessWidget {

@override

Widget build(BuildContext context) {

return MaterialApp(

title: 'Quiz App',

home: QuizPage(),

);

}

}

class Question {

final String questionText;

final List<String> options;

final int correctIndex;

Question(this.questionText, this.options, this.correctIndex);

}

class QuizPage extends StatefulWidget {

@override

\_QuizPageState createState() => \_QuizPageState();

}

class \_QuizPageState extends State<QuizPage> {

final List<Question> \_questions = [

Question("What is the capital of France?", ["London", "Berlin", "Paris", "Rome"], 2),

Question("Which planet is known as the Red Planet?", ["Earth", "Mars", "Jupiter", "Saturn"], 1),

Question("What is 5 + 3?", ["5", "8", "9", "6"], 1),

];

int \_currentIndex = 0;

int \_score = 0;

void \_answerQuestion(int selectedIndex) {

if (selectedIndex == \_questions[\_currentIndex].correctIndex) {

\_score++;

}

if (\_currentIndex < \_questions.length - 1) {

setState(() {

\_currentIndex++;

});

} else {

Navigator.pushReplacement(

context,

MaterialPageRoute(

builder: (context) => ScorePage(score: \_score, total: \_questions.length),

),

);

}

}

@override

Widget build(BuildContext context) {

var currentQuestion = \_questions[\_currentIndex];

return Scaffold(

appBar: AppBar(title: Text('Quiz App')),

body: Padding(

padding: const EdgeInsets.all(20.0),

child: Column(

crossAxisAlignment: CrossAxisAlignment.start,

children: [

Text(

'Question ${\_currentIndex + 1}/${\_questions.length}',

style: TextStyle(fontSize: 22, fontWeight: FontWeight.bold),

),

SizedBox(height: 20),

Text(

currentQuestion.questionText,

style: TextStyle(fontSize: 20),

),

SizedBox(height: 20),

...currentQuestion.options.asMap().entries.map((entry) {

int idx = entry.key;

String text = entry.value;

return ElevatedButton(

onPressed: () => \_answerQuestion(idx),

child: Text(text),

);

}),

],

),

),

);

}

}

class ScorePage extends StatelessWidget {

final int score;

final int total;

const ScorePage({required this.score, required this.total});

@override

Widget build(BuildContext context) {

return Scaffold(

appBar: AppBar(title: Text('Score Board')),

body: Center(

child: Column(

mainAxisAlignment: MainAxisAlignment.center,

children: [

Text('Your Score:', style: TextStyle(fontSize: 26)),

Text('$score / $total', style: TextStyle(fontSize: 40, fontWeight: FontWeight.bold)),

SizedBox(height: 30),

ElevatedButton(

onPressed: () {

Navigator.pushReplacement(

context,

MaterialPageRoute(builder: (context) => QuizPage()),

);

},

child: Text('Restart Quiz'),

),

],

),

),

);

}

}