

# **OWL-M : MATERIAL DESIGN STUDY APP**

Creating a Material Design study app named "Owl-M" can involve building a well-structured application that provides interactive learning content, quizzes, and study tools with an appealing and intuitive user interface. Here's a detailed description of such an app

## Concept: Owl-M

**Purpose:** A mobile app designed to help students study and learn efficiently with features like personalized quizzes, progress tracking, and an aesthetically pleasing Material Design interface.

## Features

### 1. Material Design Interface:

- a. Dynamic color themes.
- b. Consistent typography and spacing.
- c. Smooth transitions and animations for interactions.

### 2. Study Modules:

- a. Interactive lessons on various topics.
- b. Bookmark and highlight options.

### 3. Quizzes and Assessments:

- a. Multiple-choice questions, true/false, and matching types.
- b. Timed quizzes with instant feedback.

### 4. Progress Tracker:

- a. Displays completed lessons, quiz scores, and overall progress.

## **5. Dark Mode Support:**

- a. Eye-friendly dark mode for low-light environments.

## **Implementation:**

This example uses **Flutter**, a framework well-suited for Material Design.

### ***Program Code:***

```
import 'package:flutter/material.dart';

void main() => runApp(OwlMApp());

class OwlMApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Owl-M',
      theme: ThemeData(
        colorScheme: ColorScheme.fromSeed(seedColor:
Colors.blue),
        useMaterial3: true,
      ),
      home: HomePage(),
    );
  }
}

class HomePage extends StatelessWidget {
  @override
```

```

Widget build(BuildContext context) {
  return Scaffold(
    appBar: AppBar(
      title: Text('Owl-M: Study App'),
    ),
    body: Center(
      child: Column(
        mainAxisAlignment: MainAxisAlignment.center,
        children: [
          Text(
            'Welcome to Owl-M!',
            style: TextStyle(fontSize: 24, fontWeight:
FontWeight.bold),
          ),
          SizedBox(height: 20),
          ElevatedButton(
            onPressed: () {
              Navigator.push(
                context,
                MaterialPageRoute(builder: (context) =>
QuizPage()),
              );
            },
            child: Text('Start Quiz'),
          ),
        ],
      ),
    ),
  );
}

```

```

class QuizPage extends StatelessWidget {
  @override

```

```

Widget build(BuildContext context) {
  return Scaffold(
    appBar: AppBar(
      title: Text('Quiz Time!'),
    ),
    body: QuizWidget(),
  );
}

class QuizWidget extends StatefulWidget {
  @override
  _QuizWidgetState createState() => _QuizWidgetState();
}

class _QuizWidgetState extends State<QuizWidget> {
  int _currentQuestionIndex = 0;
  final List<Map<String, Object>> _questions = [
    {
      'question': 'What is the capital of France?',
      'answers': ['Berlin', 'Madrid', 'Paris', 'Rome'],
      'correctAnswer': 'Paris',
    },
    {
      'question': 'What is 2 + 2?',
      'answers': ['3', '4', '5', '6'],
      'correctAnswer': '4',
    },
  ];

  void _nextQuestion() {
    setState(() {
      _currentQuestionIndex++;
    });
  }
}

```

```

    }

    @override
    Widget build(BuildContext context) {
      if (_currentQuestionIndex >= _questions.length) {
        return Center(
          child: Text(
            'Quiz Completed!',
            style: TextStyle(fontSize: 24, fontWeight:
FontWeight.bold),
          ),
        );
      }

      final question = _questions[_currentQuestionIndex];

      return Padding(
        padding: const EdgeInsets.all(16.0),
        child: Column(
          crossAxisAlignment: CrossAxisAlignment.start,
          children: [
            Text(
              question['question'] as String,
              style: TextStyle(fontSize: 20),
            ),
            SizedBox(height: 20),
            ...(question['answers'] as
List<String>).map((answer) {
              return ListTile(
                title: Text(answer),
                leading: Radio(
                  value: answer,
                  groupValue: question['correctAnswer'],
                  onChanged: (value) {

```

```
        _nextQuestion();
    },
    ),
    );
    }).toList(),
],
),
);
}
```

## Output:

### 1. Home Page:

- a. A welcome message with a "Start Quiz" button.

### 2. Quiz Page:

- a. Displays one question at a time with multiple-choice answers.
- b. Progresses to the next question upon selecting an answer.

### 3. Completion Message:

- a. Displays "Quiz Completed!" after finishing all questions.