TUGAS 05

PRAK06 Quizzler

Praktikum Pemrograman Berbasis Web - A

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PROGRAM STUDI S1 TEKNIK INFORMATIKA
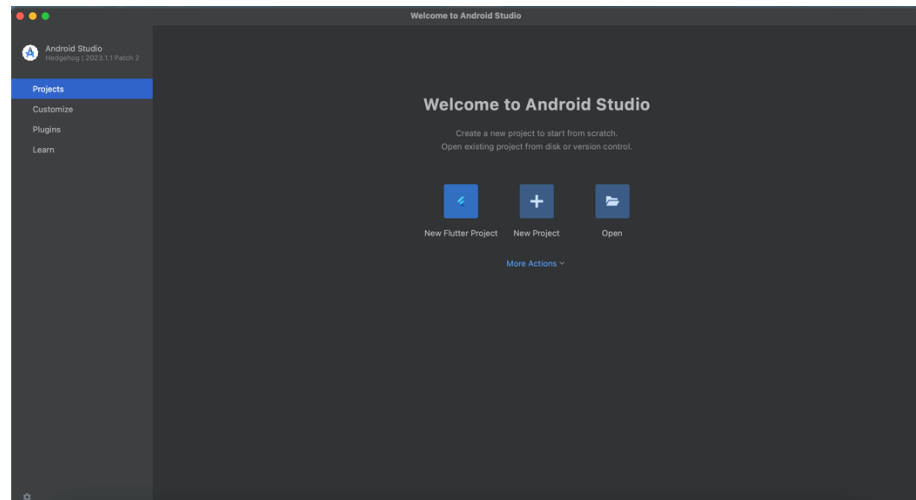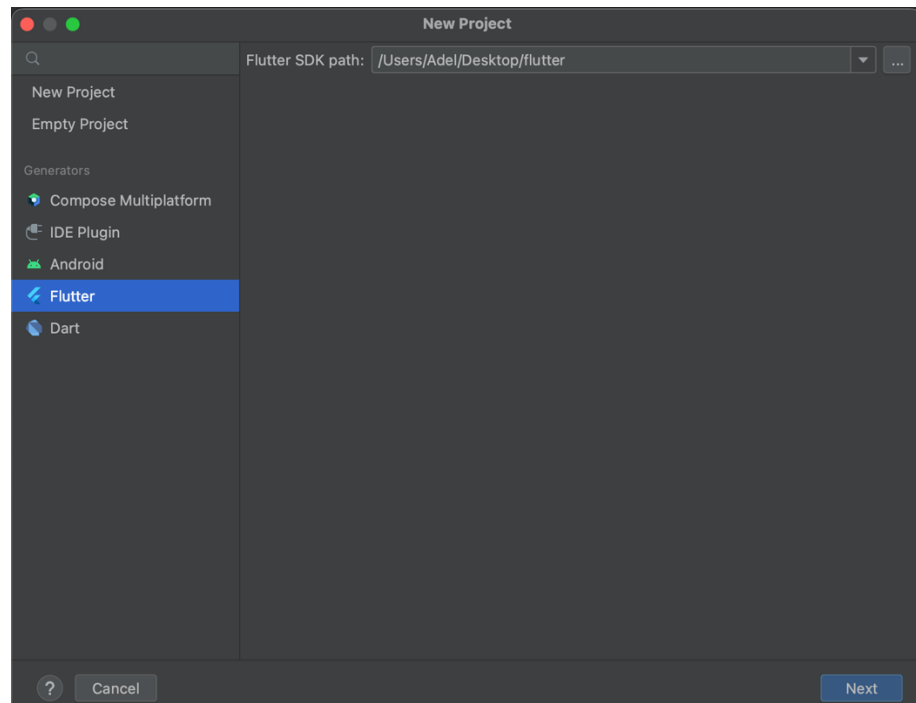
FAKULTAS TEKNIK

UNIVERSITAS PANCASILA

JAKARTA

2024

A. Project quizzler

    a. First Initialization

        1. Akses web https://docs.flutter.dev/ui/layout/tutorial
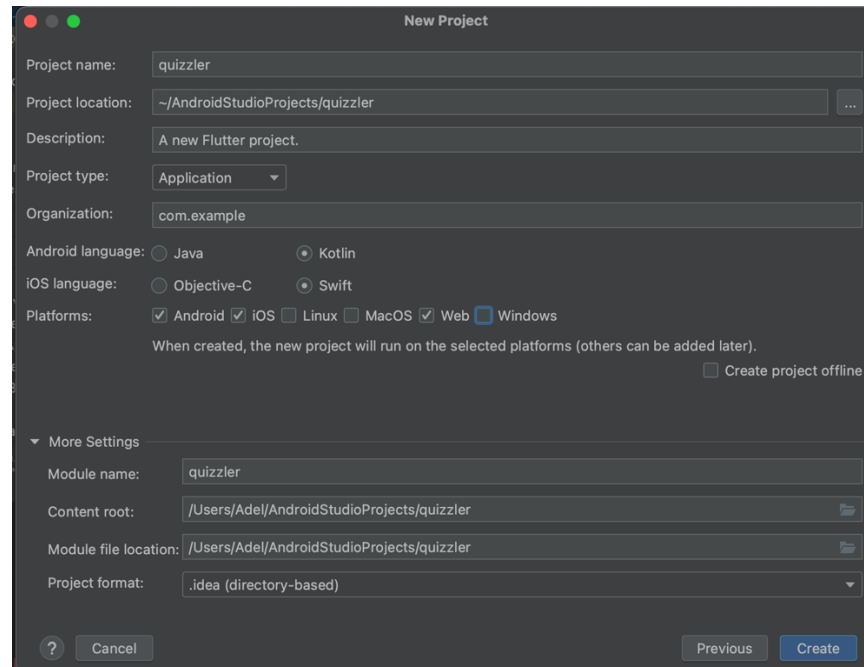
        2. Buka Android Studio

        3. Pilih New Flutter Project -> Flutter -> Next

4. Isi form untuk nama project, tempat project, type, bahasa pemrograman, platforms dan lainnya -> Create

b. **Membuat Layout**

1. File main.dart

```dart
import 'package:flutter/material.dart';
import 'package:quizzler/quiz_brain.dart';
import 'package:rflutter_alert/rflutter_alert.dart';

// membuat object
QuizBrain quizBrain = QuizBrain();

// fungsi main
void main() {
  runApp(const QuizzlerApp());
}

class QuizzlerApp extends StatelessWidget {
  const QuizzlerApp({super.key});

  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      home: Scaffold(
        backgroundColor: Colors.white,
        appBar: AppBar(
          title: const Text(
            'NCT 127 QUIZZES',
            style: TextStyle(
```

```dart
              color: Colors.black,
                fontWeight: FontWeight.bold,
              ),
            ),
            backgroundColor: Colors.lightGreenAccent,
          ),
          body: const SafeArea(
            child: Padding(
              padding: EdgeInsets.symmetric(horizontal:
10.0),
              child: QuizPage(),
            ),
          ),
        ),
      );
    }
}

class QuizPage extends StatefulWidget {
  const QuizPage({super.key});

  @override
  State<QuizPage> createState() => _QuizPageState();
}

class _QuizPageState extends State<QuizPage> {
  List<Icon> scoreKeeper = [];

  // menghitung jawaban benar dan salah
  int numCorrect = 0;
  int numIncorrect = 0;

  void checkAnswer(bool userPickedAnswer) {
    bool correctAnswer = quizBrain.getCorrectAnswer();

    // setState
    setState(() {
      // mengecek quiz telah selesai atau belum
      if (quizBrain.isFinished()) {
        // jika quiz sudah selesai
        Alert(
          context: context,
          title: 'Finished',
          desc: 'You\'ve reached the end of the Quiz\n'
              'Correct Answers: $numCorrect\n'
              'Incorrect Answers: $numIncorrect\n'
              'Total Questions:
${quizBrain.getTotalQuestions()}',
        ).show();

        quizBrain.reset();
        scoreKeeper = [];

      } else {
        if (userPickedAnswer == correctAnswer) {
          scoreKeeper.add(const Icon(
```

```dart
              Icons.check_circle,
              color: Colors.lightGreenAccent,
            ));
            numCorrect++;
          } else {
            scoreKeeper.add(const Icon(
              Icons.close_sharp,
              color: Colors.red,
            ));
            numIncorrect++;
          }
          quizBrain.nextQuestion();
        }
      });
    }

    @override
    Widget build(BuildContext context) {
      return Column(
        mainAxisAlignment:
MainAxisAlignment.spaceBetween,
        crossAxisAlignment: CrossAxisAlignment.stretch,
        children: <Widget>[
          Expanded(
            flex: 5,
            child: Padding(
              padding: const EdgeInsets.all(10.0),
              child: Center(
                child: Text(
                  quizBrain.getQuestionText(),
                  textAlign: TextAlign.center,
                  style: const TextStyle(
                    fontSize: 25.0,
                    color: Colors.black,
                  )
                ),
              ),
            ),
          ),
          Expanded(
            child: Padding(
              padding: const EdgeInsets.all(15.0),
              child: TextButton(
                onPressed: () {
                  checkAnswer(true);
                },
                style: const ButtonStyle(
                  backgroundColor:
MaterialStatePropertyAll(Colors.lightGreenAccent),
                  foregroundColor:
MaterialStatePropertyAll(Colors.black),
                  textStyle: MaterialStatePropertyAll(
                    TextStyle(fontSize: 20.0),
                  ),
                ),
                child: const Text(
```

```
                      "TRUE",
                ),
              ),
            ),
          ),
          Expanded(
            child: Padding(
              padding: const EdgeInsets.all(15.0),
              child: TextButton(
                onPressed: () {
                  checkAnswer(false);
                },
                style: const ButtonStyle(
                  backgroundColor:
MaterialStatePropertyAll(Colors.red),
                  foregroundColor:
MaterialStatePropertyAll(Colors.black),
                  textStyle: MaterialStatePropertyAll(
                    TextStyle(fontSize: 20.0),
                  ),
                ),
                child: const Text(
                  "FALSE",
                ),
              ),
            ),
          ),
          Row(
            children: scoreKeeper,
          )
        ],
      );
    }
}
```

- Membuat halaman QuizPage stateful

- Tambah package alert

2. File question.dart

```
class Question {
  String questionText;
  bool questionAnswer;

  Question({required this.questionText, required
this.questionAnswer});
}
```

- Class question

3. File quiz_brain.dart

```
class Question {
import 'question.dart';
```

```dart
class QuizBrain {
  int _questionNumber = 0;

  final List<Question> _questionBank = [
    Question(questionText: 'NCT 127 debut July 7,
2016', questionAnswer: true),
    Question(questionText: 'NCT 127 debut song is
Cherry Bomb', questionAnswer: false),
    Question(questionText: 'The youngest member in NCT
127 is Haechan', questionAnswer: true),
    Question(questionText: 'Taeyong is NCT 127 leader',
questionAnswer: true),
    Question(questionText: 'The 7th Sense is NCT 127
song', questionAnswer: false),
    Question(questionText: 'Johnny is the oldest member
of NCT 127', questionAnswer: false),
    Question(questionText: 'Doyoung joined NCT 127 in
2017', questionAnswer: true),
    Question(questionText: 'Mark is the main rapper of
NCT 127', questionAnswer: true),
    Question(questionText: 'Taeil is the main vocalist
of NCT 127', questionAnswer: true),
    Question(questionText: 'Yuta is NCT 127 member born
in America', questionAnswer: false),
    Question(questionText: 'Jungwoo firt studio album
is NCT #127 Regular-Irregular  ', questionAnswer:
true),
    Question(questionText: 'Jaehyun is main focal and
rapper in NCT 127', questionAnswer: true),
    Question(questionText: 'NCT 127 Home',
questionAnswer: true),
  ];

  void nextQuestion() {
    if (_questionNumber < _questionBank.length) {
      _questionNumber++;
    }
  }

  String getQuestionText() {
    return _questionBank[_questionNumber].questionText;
  }

  bool getCorrectAnswer() {
    return
_questionBank[_questionNumber].questionAnswer;
  }

  //TODO: Step 3 Part A - create isFinished method that
checks the last questions.
  bool isFinished() {
    if (_questionNumber >= _questionBank.length - 1 ) {
      print('returning true');
      return true;
    } else {
```

```
        return false;
      }
    }

  //TODO: Menghitung jumlah pertanyaan
  int getTotalQuestions() {
    return _questionBank.length;
  }
  //TODO: Step 4 Part B - Create a reset() method that
sets the questionNumber back to 0
  void reset() {
    _questionNumber = 0;
  }
}
```

- Class quiz_brain

- Memanggil class question dati file question.dart
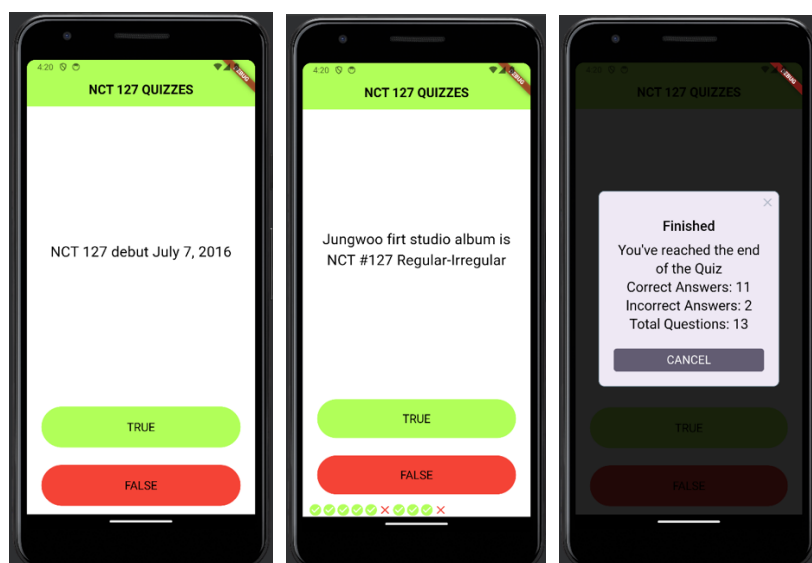
4. Install Package

```
Buka terminal
$ cd /Users/Adel/AndroidStudioProjects/quizzler
$ flutter pub add rflutter_alert
```

5. Run

```
Pilih Simulator -> Klik Ikon Run
```

B. Push Code to GitHub https://github.com/adelianurlinap/Prak_PBM.git

    a. Clone Repository yang telah dibuat :

```
git clone https://github.com/adelianurlinap/Prak_PBM.git
```

    b. Add dan commit

```
git add .
git commit -m "Tugas5"
```

    c. Push code

```
git push
```

C. Kesimpulan

Pada tugas 5 ini, telah dilakukan praktek untuk membuat stateful app dan app dengan Alert.

D. Referensi

https://github.com/adiwp/MobileProjects