

Project In Android Development

236272

Assignment 1

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Exercise 1:

1. Identify the 2 lines of code that make the list infinitely scrolling. What happens if we remove these lines, and scroll to the end of the list? Assume `_suggestions` starts with a non-empty list of 10 word-pairs. You can use `generateWordPairs().take(10).toList()`
Hint: run the changed code to see if you're right

Answer:

The 2 lines of code that make the list infinitely scrolling:

```
if (index >= _suggestions.length) {  
  // ...then generate 10 more and add them to the  
  // suggestions list.  
  _suggestions.addAll(generateWordPairs().take(10));  
}
```

The suggestions are saved in the suggestions list. When trying to scroll to an index that is out of bounds, this adds another ten word-pairs to the suggestions list. Allowing the list to look infinite.

Removing these two lines results in a `RangeError Exception`, when trying to scroll down after the first ten pairs.

2. Our list is separated with `Divider` widgets. Visit the `ListView` widget documentation here: <https://api.flutter.dev/flutter/widgets/ListView-class.html>;

Give a different method to construct such a list with dividers. Which way do you think is better, and why? You may assume for this question only that the list is finite and contains 100 items from the start.

Answer:

For a short static list that contains 100 items we can use `ListTile.divideTiles(...)`.

For a long dynamic list, like the one in our assignment we can use `Divider()`, which returns two widgets for every item.

Most applications contain dynamic data, which is displayed using a

dynamic list, therefore using the Divider() class would be the better option.

3. `_buildRow` contains a call to `setState()` inside the `onTap()` handler. Why do we need it there?

Answer:

When Tapping on the star icon, the state of the icon should change, and the word-pair should be saved/unsaved accordingly.

If the word-pair is already saved and we tapped on the star icon the word-pair should be removed from the saved list, otherwise it should be added.

In other words, the state of the tile changes when we tap on the star icon.

Exercise 2:

1. What is the purpose of the MaterialApp widget? Provide examples of 3 of its properties followed by a short explanation

Answer:

The MaterialApp widget is a convenience widget that wraps a number of widgets that are commonly required for material design applications. This widget also helps set up the app navigator, and the animations that happen when a user navigates between pages.

The MaterialApp widget properties include:

1. home: the widget for the default route of the app.
 2. theme: default visual properties, like colors fonts and shapes, for this app's material widgets.
 3. title: A one-line description used by the device to identify the app for the user.
2. The Dismissible widget has a key property. What does it mean and why is it required?

Answer:

The key property is used to uniquely identify the widgets. Key is a required property in the Dismissible widget since the widget can be removed from the widget list.

The key property allows identifying the widget we want to dismiss, therefor it should be unique, and there shouldn't be any duplicates.