



National University of Sciences and Technology (NUST)
School of Electrical Engineering and Computer Science

Department of Computing

EC-303: Mobile Application Development

Class: BESE 8AB + BSCS 7ABC

Lab 08: Implementation Of Grid View Widget.

Date: 14th April 2021

Time: 9:00 AM - 12:00 PM

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Lab Engineer: Mr. Aftab Farooq



Lab 8: Implementation Grid View Widget

Objectives

A grid view is a graphical control element used to **show items in the tabular form**. The objective of this lab is helping students to familiarize themselves to learn how to render items in a grid view in the Flutter application.

GridView is a widget in Flutter that displays the items in a **2-D array** (two-dimensional rows and columns). As the name suggests, it will be used when we want to show items in a Grid. We can select the desired item from the grid list by tapping on them. This widget can contain **text, images, icons**, etc. to display in a grid layout depending on the user requirement. It is also referred to as a **scrollable** 2-D array of widgets. Since it is scrollable, we can specify the direction only in which it scrolls.

Tools/Software Requirement

Flutter, Android Studio, XCode, Any Editor

Helping Material:

- Flutter official Documentation
- <https://www.solutelabs.com/blog/flutter-tutorial-for-beginners-step-by-step-guide>.
- Stack overflow
- Flutter Community

Helping Link for Icons & Logo:

- <https://icons8.com/icons/set/mobile-app>

Lab Task # 1

Create a Simple Recipe Book App Using Grid View Widget:

A). Create a simple Recipe Book Application.

- 1). Create a New Project with **Recipe Book**.
- 2). Make a splash screen with any Logo and Title name **“Recipe Book”**
- 3). After Splash screen create a new view i.e. **Recipe view or Home view**
- 4). Implement a **Grid View Widget**. (like shown below)
- 5). Take a Image Place holder for Recipe Image.
- 6). Take a static Array of Recipe Images i.e **recipeImages** like below (use previous lab images):

```
var recipeImages = ["egg_benedict.jpg", "mushroom_risotto.jpg", "full_breakfast.jpg", "hamburger.jpg",  
"ham_and_egg_sandwich.jpg", "creme_brelee.jpg", "white_chocolate_donut.jpg", "starbucks_coffee.jpg",  
"vegetable_curry.jpg", "instant_noodle_with_egg.jpg", "noodle_with_bbq_pork.jpg",
```



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"japanese_noodle_with_pork.jpg", "green_tea.jpg", "thai_shrimp_cake.jpg", "angry_birds_cake.jpg",
"ham_and_cheese_panini.jpg", nil];





Lab Task # 2

Customizing A Grid View Layout:

B). Customizing of Recipe Grid view.

- 1). Create a background view and set Recipe Image on it.
- 2). Set any **back ground color** of background view.
- 3). Make **round** Recipe Image corners.
- 4). At Bottom Of each Image show a prep time to each Recipe (use previous lab PrepTime array).
- 5). Make sure to apply a same Grid View style as shown below.

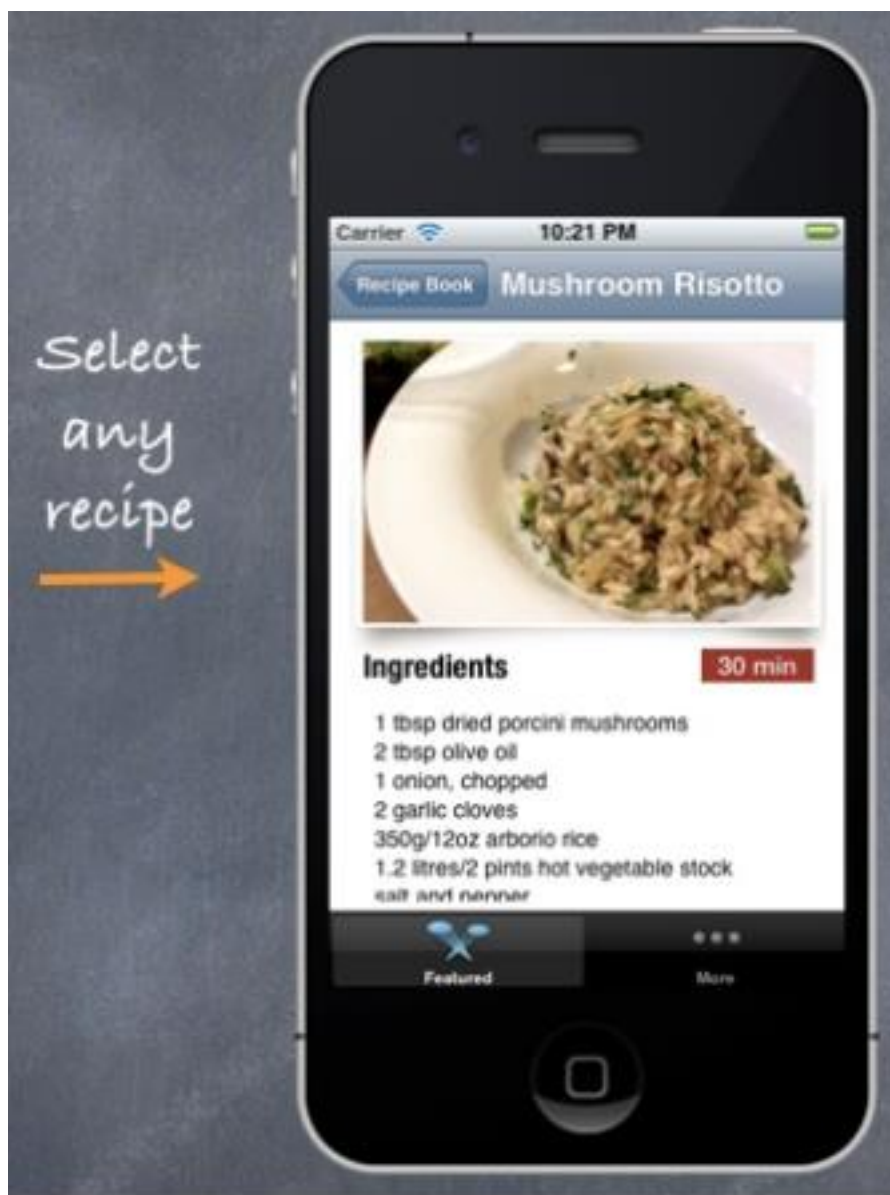




Lab Task # 3

Create a Recipe Detail View:

- 1). Create a new view i.e. “**Recipe Detail View**”
- 2). Create a header view and set Title Of Recipe.
- 3). When user click on any Recipe from Grid view it's navigates to “**Recipe Detail View**”
- 4). Pass Image , Title and PrepTime of selected Grid View Item to Recipe Detail View.
- 5). Show Image , Title and PrepTime of selected Grid View Item on Recipe Detail View.
- 6). Add any Description in **Text view** about Recipe (as shown below).





Solution

Task Code:

Task Output Screenshot:

Deliverable

Compile a single word document by filling in the solution part and submit this Word file on LMS. This lab grading policy is as follows: The lab is graded between 0 to 10 marks. The submitted solution can get a maximum of 5 marks. At the end of each lab or in the next lab, there will be a viva/quiz related to the tasks. You must show the implementation of the tasks in the designing tool, along with your complete Word document to get your work graded. You must also submit this Word document on the LMS. In case of any problems with submissions on LMS, submit your Lab assignments by emailing it to Mr. Aftab Farooq: aftab.farooq@seecs.edu.pk.