**953494 Selected Topics in Software Engineering 1**

**Application Interface**

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**Choose one application from any store, implement one of its interfaces.**

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**Instruction**

Choose one application from any store, implement one of its interfaces. Explain about the widget that you use and explain about the widget tree to create the application's interface.

**Application**

Reference Application CMU MOBILE

|  |  |  |
| --- | --- | --- |
| CMU MOBILE  (First page interface) | My implement  (Web run) | My implement  (Android studio) |
|  |  |  |

Table 1 Compare implement application with reference

GitHub Link

([https://github.com/krt-n201x/622115003\_Kitsada\_49464/tree/main  
/cmumobile](https://github.com/krt-n201x/622115003_Kitsada_49464/tree/main/cmumobile))

**Widget’s Tree**

**My App**

* **MaterialApp**
  + **MyStatefulWidget**
    - **Scaffold**
      * **AppBar**
        + **Row**

**Widget children**

**IconButton**

**Stack**

**Widget children**

**IconButton**

**Position**

**Expanded**

**Center**

**Text**

* + - * + **Widget actions**

**IconButton**

**SizeBox**

**Tab**

**Container**

**Image**

**SizeBox**

* + - * **Body**
        + **ListView**

**Calender**

**Container**

**BoxDecoration**

**BoxShadow**

**Column**

**Text**

**SizeBox**

**Text**

**SizeBox**

**Container**

(Continue page 3, 2.1)

**Todolist**

**Container**

(Continue page 3, 2.2)

* + - * **BottomNavigationBarItem**

(Continue page 3, 2.3)

(From page 2, 2.1)

* **Container**
  + **Row**
    - **IconButton**
    - **Text**

(From page 2, 2.2)

* **Container**
  + **Boxdecoration**
    - **BoxShadow**
  + **Column**
    - **SizeBox**
    - **Text**
    - **SizeBox**
    - **Row**
      * **Text**

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* **BottomNavigationBarItem**
  + **Icon**
  + **Icon**
  + **Icon**
  + **Icon**
  + **Icon**

**Widget’s Tree explanation (Part 1)**

|  |  |
| --- | --- |
| **Widget name** | **Description** |
| Appbar | Creates a material design app bar. |
| Body | Part of detail on this page. |
| BottomNavigationBarItem | The flutter original class, widgets to create the bottom navigation bar (navigation bar at the bottom of the screen). |
| BoxDecoration | Creates a box decoration. To contain the decoration command. |
| BoxShadow | Create a shadow of the component. |
| Calender | The original widget, implement to contain the component in the first box part. |
| Column | Is the creation of a table in Row style to wrap the element in Vertical. |
| Container | Creates a widget that combines common painting, positioning, and sizing widgets.  The height and width values include the padding.  The color and decoration arguments cannot both be supplied, since it would potentially result in the decoration drawing over the background color. |
| Expanded | Creates a widget that expands a child of a [Row], [Column], or [Flex] so that the child fills the available space along the flex widget's main axis. |
| IconButton | Creates an icon button. |
| Image | Creates a widget that displays an image. |
| List View | List that will show the component. |
| Position | Creates a widget that controls where a child of a [Stack] is positioned. |
| Row | Is the creation of a table in Row style to wrap the element in Horizontal. |

**Widget’s Tree explanation (Part 2)**

|  |  |
| --- | --- |
| **Widget name** | **Description** |
| SizeBox | Creates a fixed size box. |
| Stack | Creates a stack layout widget. |
| Tab | Creates a material design [TabBar] tab. |
| Text | Creates a text widget. To display data |
| Todolist | The widget contains a component to display in the to-do list box. |
| Widget actions | List of widgets used in navigation bar, it will keep the element or component in the right position. |
| Widget children | List of widgets used in navigation bar, it will keep the element or component in the left position. |