

# 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

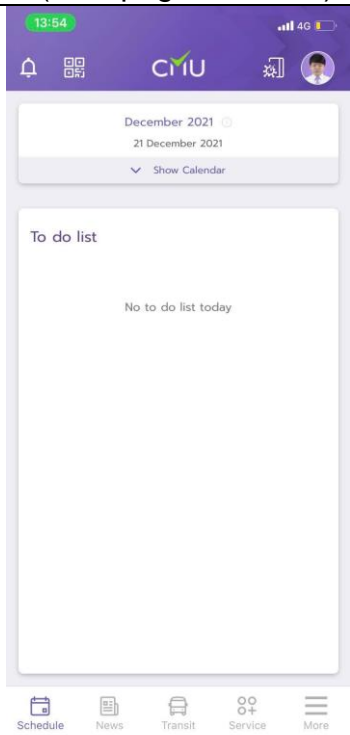
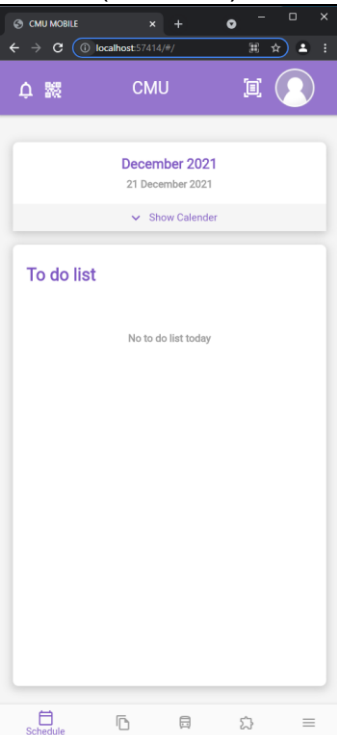
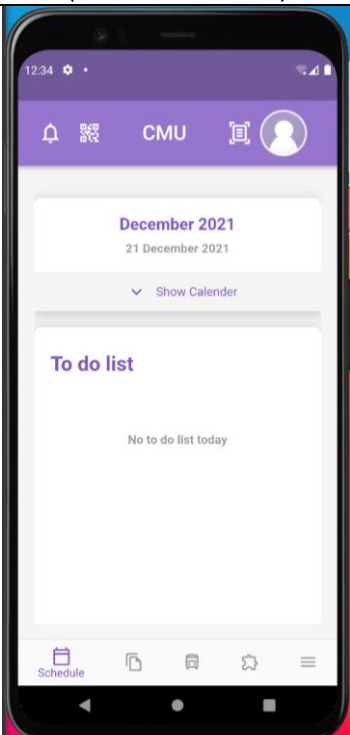
CMU MOBILE (First page interface)	My implement (Web run)	My implement (Android studio)
		

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)) or [click here](#)

## 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**
        - **Todolist**
          - **Container**
- **BottomNavigationBarItem**  
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(Continue page 3, 2.1)

(Continue page 3, 2.2)

(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.<br>The height and width values include the padding.<br>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)**

| <b>Widget name</b> | <b>Description</b>   |
|--------------------|--|
| 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.  |