

# HOME

## Basic Design Document

Version 1.0

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## Revision History

Name	Date	Reason to change	Version
Trung	03/06/2021	Initialize document	1.0

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## I. UI Design

UI is presented in the UI Design Document.pdf

## II. UX Design

UX is presented in the UI Design Document.pdf

## III. Architecture Design

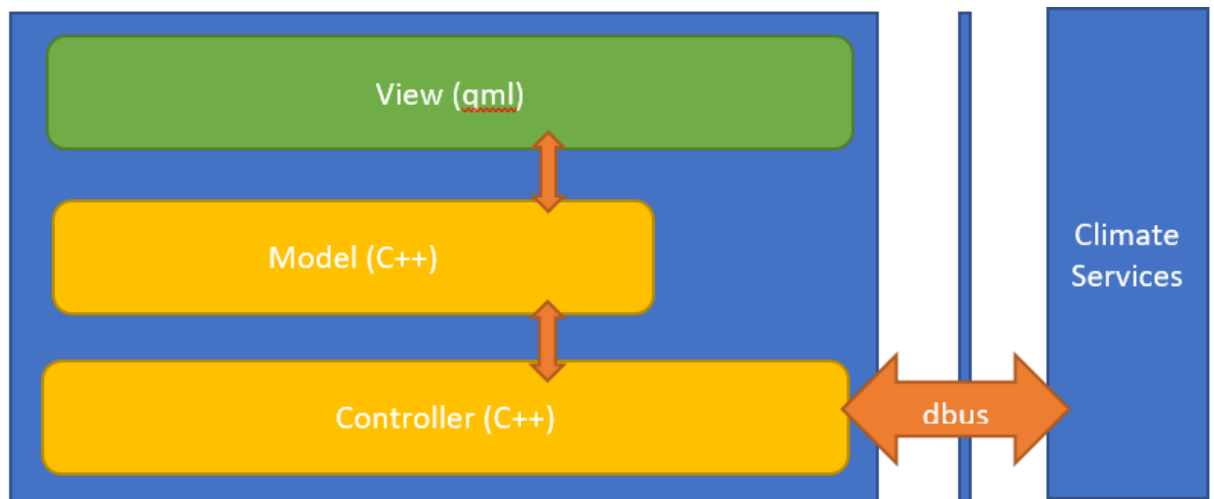


Figure 1: Architecture layout

**View(qml):** This is the management screen, the elements are built with qml, and the resources of the build screen

**Model:** As the data building for managing the state of the interface from C ++, it is the place to show the data for the construction of the state of the screen.

**Controller:** As part of processing, program control, and responsible for connecting to the 3rd services (specifically here is climate services)

The architecture built for the program is built on the Model View architecture

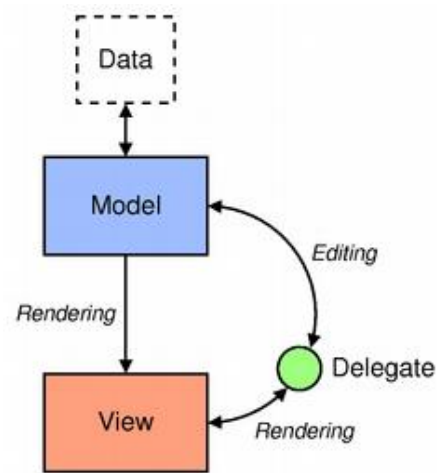


Figure 2: model view Architecture

Data: xml contains application information in the system

Model: The class stores the reading application list from the xml file

View: QML displays the list application

## IV. Process Design

### 1. Open Home app

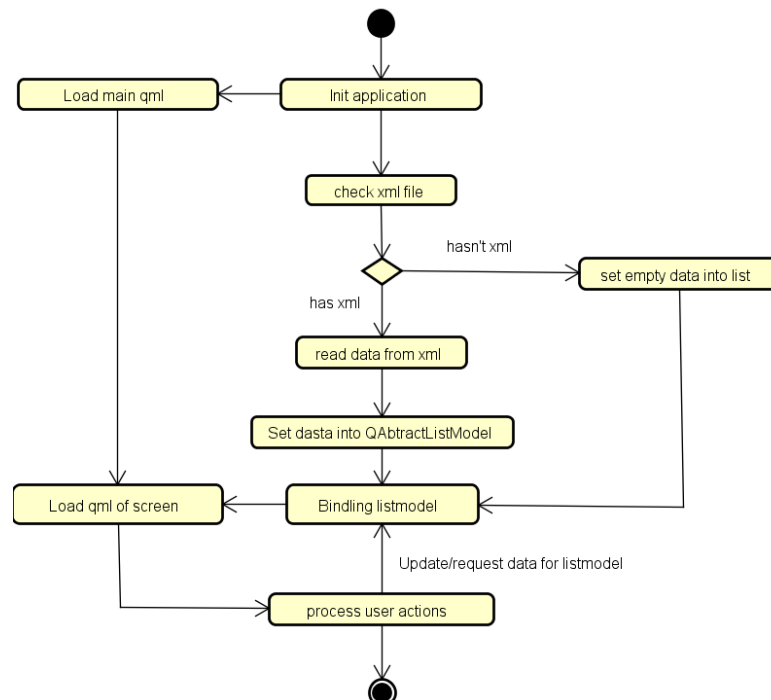


Figure 3: Open Home app

Step to start the home program:

- Step 1: Create engine object of QQmlApplicationEngine
- Step 2: Create appsModel object of ApplicationsModel
- Step 3,4: Create xmlReader object of XmlReader with the value passed as the path to the xml file and appsModel object
- Step 5: Read the xml file
- Step 6: Parse information from xml to ApplicationsModel object
- Step 7: Binding appsModel to QML by settingContextProperty
- Step 8: Start the QML engine by loading the url of the main qml file

## 2. Open 1 app (Media Icon, Media Widget)

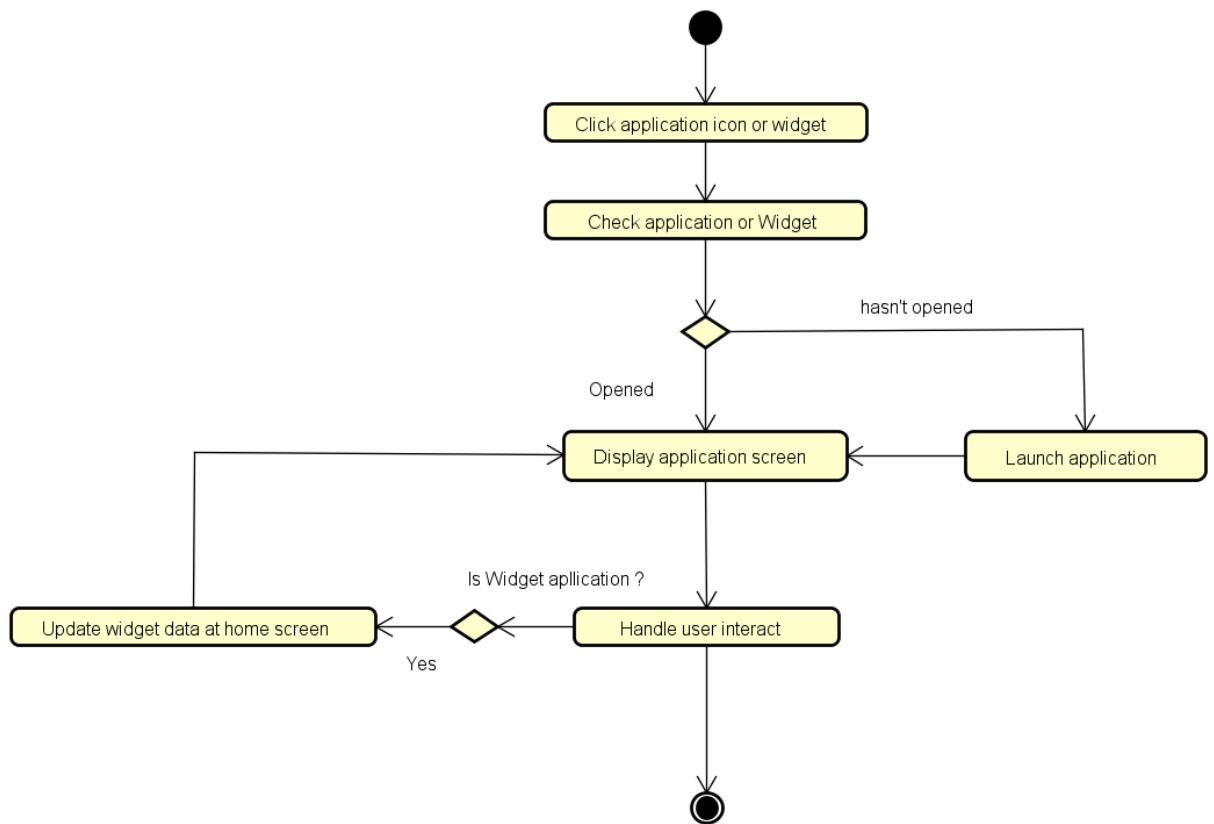


Figure 4: Open 1 app

Step to open 1 app:

- Step 1: Click application icon or widget icon
- Step 2: Start and run Application
- Step 3: Display Application

### 3. Close 1 apps (back to home)

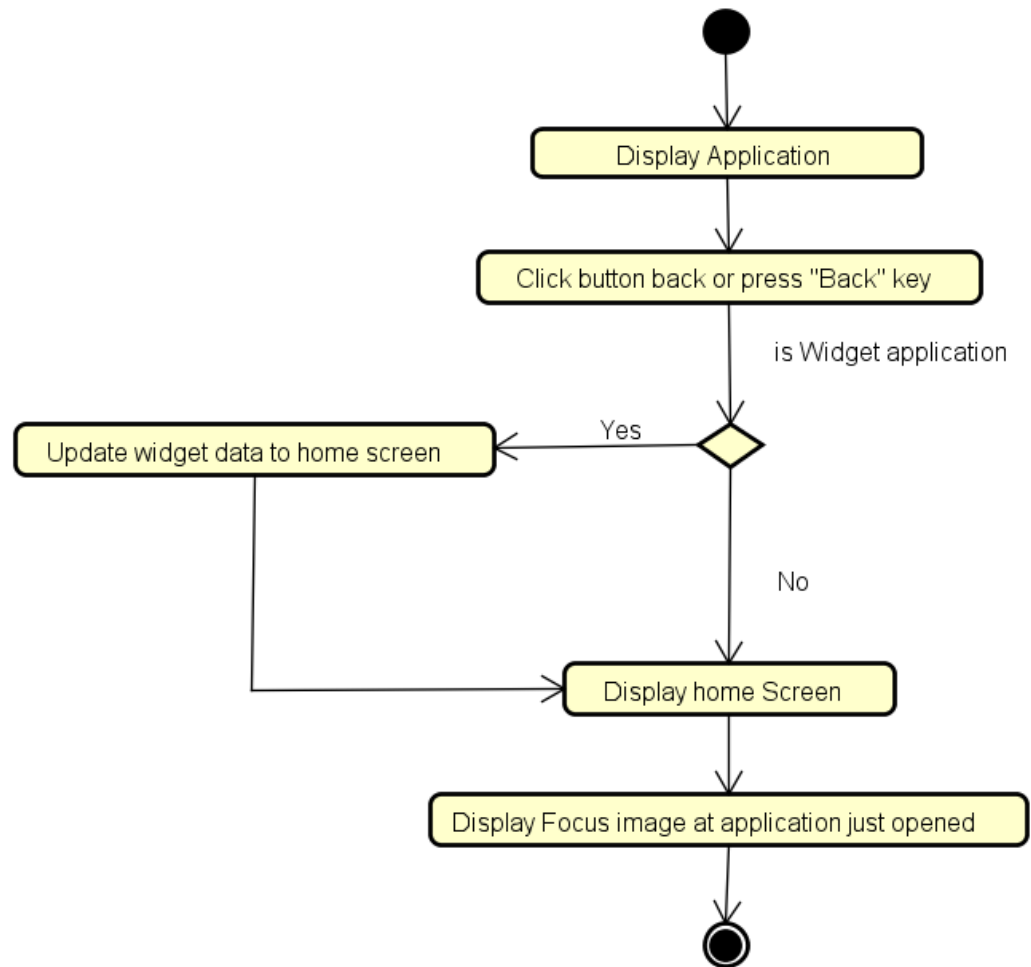


Figure 5: Close 1 apps(back to home)

Step to close 1 app:

- Step 1: Click Back Button
- Step 2: Send data from app or widget to Home screen
- Step 3: Display Home screen

### 4. Flick Left/Right

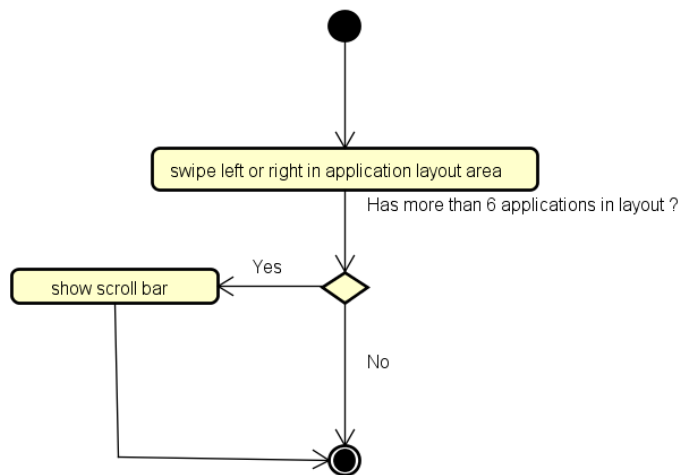


Figure 6: Flick Left/Right

Step to Flick Left/Right:

- Step 1: Swipe left or right in application listView area
- Step 2: Show scroll bar

## 5. Re-order Apps

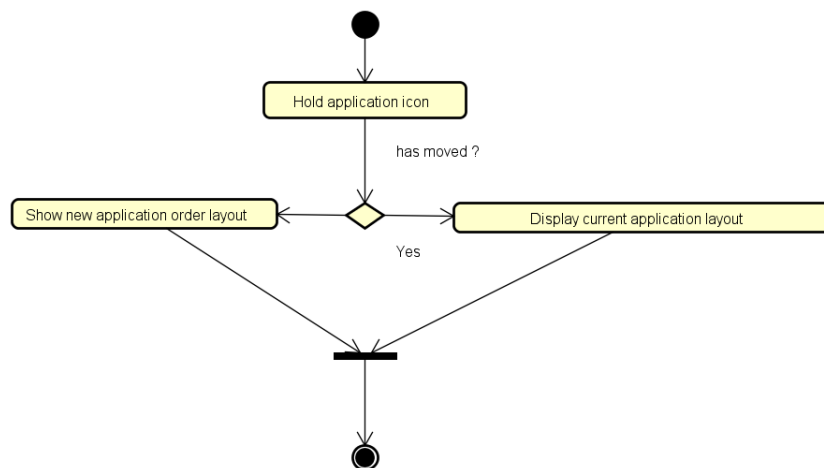


Figure 7: Re-order Apps

Step to Re-order Apps:

- Step 1: Hold app icon
- Step 2: Move app icon to new position
- Step 3: Update new layout by listView
- Step 4: Display new application order layout



## 6. climate send information to widget

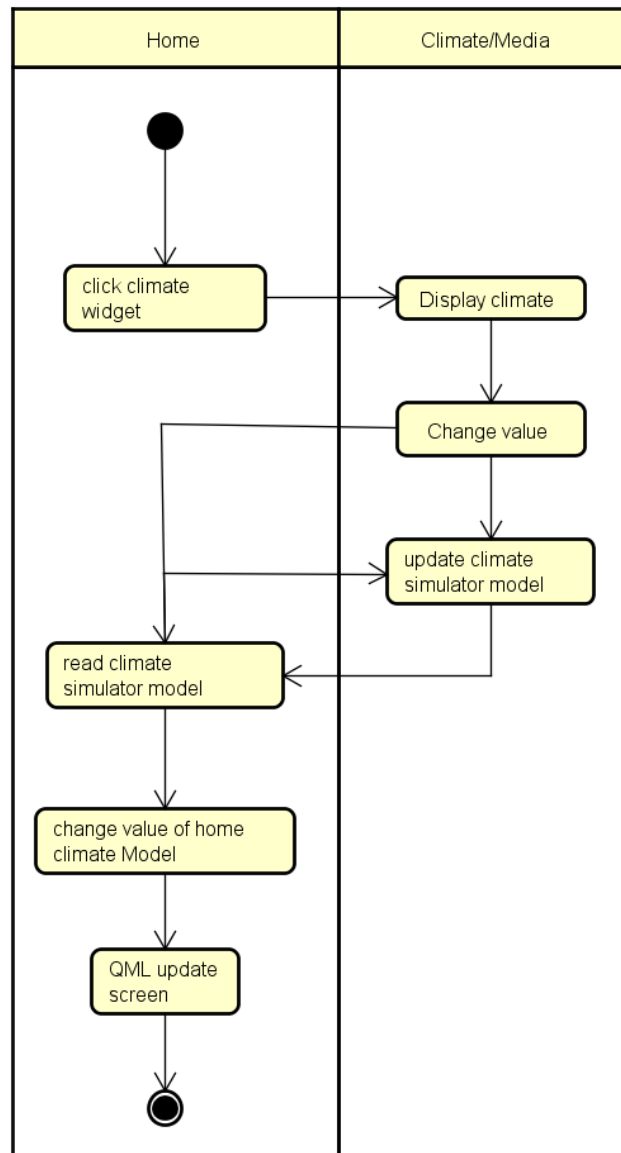


Figure 8: climate send information to widget

Step to climate send information to widget:

- Step 1: Click climate widget from widget layout in home screen
- Step 2: Run and Display climate screen
- Step 3: Change value in climate screen
- Step 4: climate screen qml file update instance of climate simulator object model
- Step 5: climate screen send signal to Home screen qml file
- Step 6: Home screen qml file get signal and read data from climate simulator object model
- Step 8: Home screen qml update home climate model
- Step 9: QML update Home screen

## 7. media send information to widget

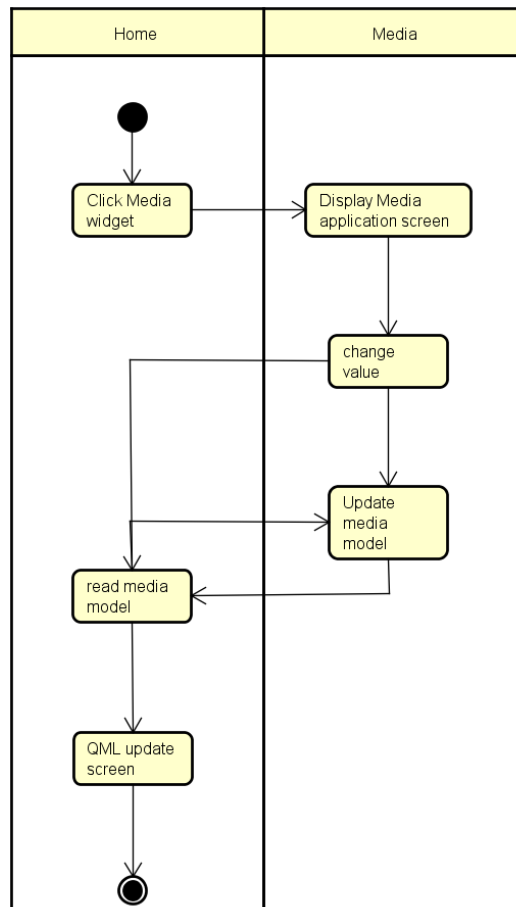


Figure 9: media send information to widget

Step to media send information to widget:

- Step 1: Click media widget from widget layout in home screen
- Step 2: Run and Display media screen
- Step 3: Change value in media screen
- Step 4: update instance of QObject model
- Step 5: send signal to Home screen qml file
- Step 6: Home screen qml file get the signal
- Step 7: Home screen read data from QObject model
- Step 8: QML update Home screen