UNREAL WIDGET DEVELOPMENT

TASK

- Develop a Widget which allow to insert a variable number of options with their associated details, according to the image 1 and the included Challenge document;

- The component must be easy to reuse;

- The component must support styling for artistic fine-tuning.

SCOPE

We want a reusable Widget component which allows Unreal developers to quickly insert into the game a generic list of items at left with the selected item details centered at right. The data is dynamic and the component must provide a way to insert, update and remove items at runtime.

The component must support multiple input types (mouse/keyboard and gamepad) on different platforms. We should also be careful to layout the components in such a way which looks good in different screen resolutions and aspects.

ARCHITECTURE

We will make use of the built-in Unreal CommonUI plugin to allow multiple input types and visual styling.

We will make use of the built-in Unreal Viewmodel plugin to allow better separation of concerns.

Data fields are provided to the component as a Struct:
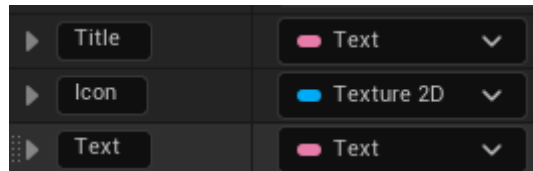
- **Title:** the item title (Text) which is displayed at the left list;
- **Icon:** the item icon (Texture2D) which is displayed at the right (details) list;
- **Description:** the item long description (Text) which is displayed at right (details) list.

There will be three main classes:

MainListItem: a sub-component based on CommonUserWidget, which will be the list at left; visually, this sub-component will only include a clickable button. The button text will be dynamically set with the item title.
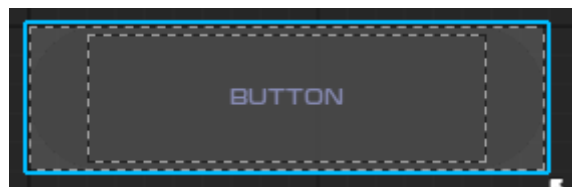

SubListItem: a sub-component based on CommonUserWidget, which will be the list at right; visually, it will show the item icon and the item description.
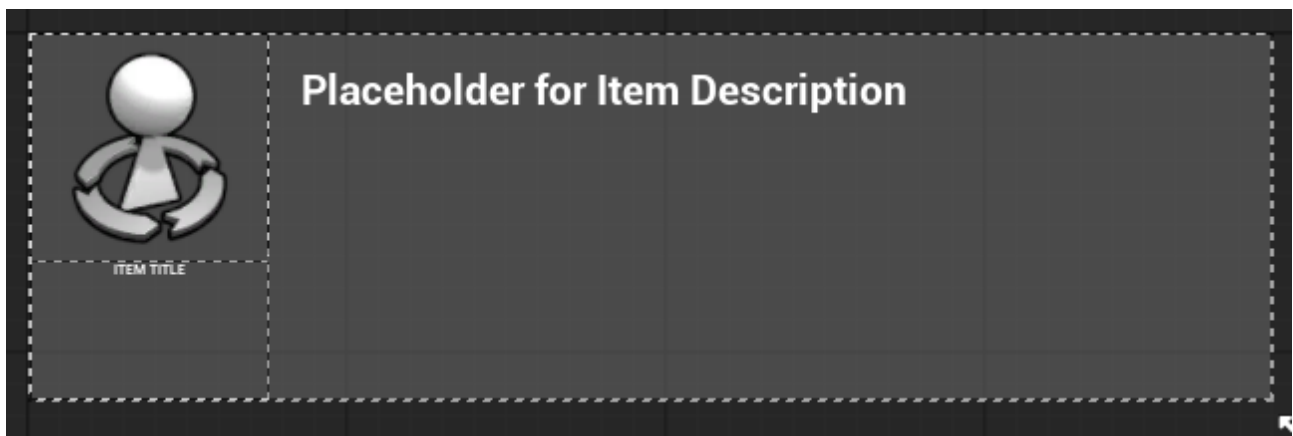
MainWidget: based on CommonActivatableWidget, this will be the main component and also the logic orchestrator. The MainWidget will contain the two sub-components, MainListItem and SubListItem.

MainWidget will accept an optional DataTable as a construction parameter, to provide immediate population. It will automatically insert the items into the two sub-components.

MainWidget will also provide two public functions: InsertItem and RemoveItem. These functions allow for insertion and removal of items at will, during gameplay.
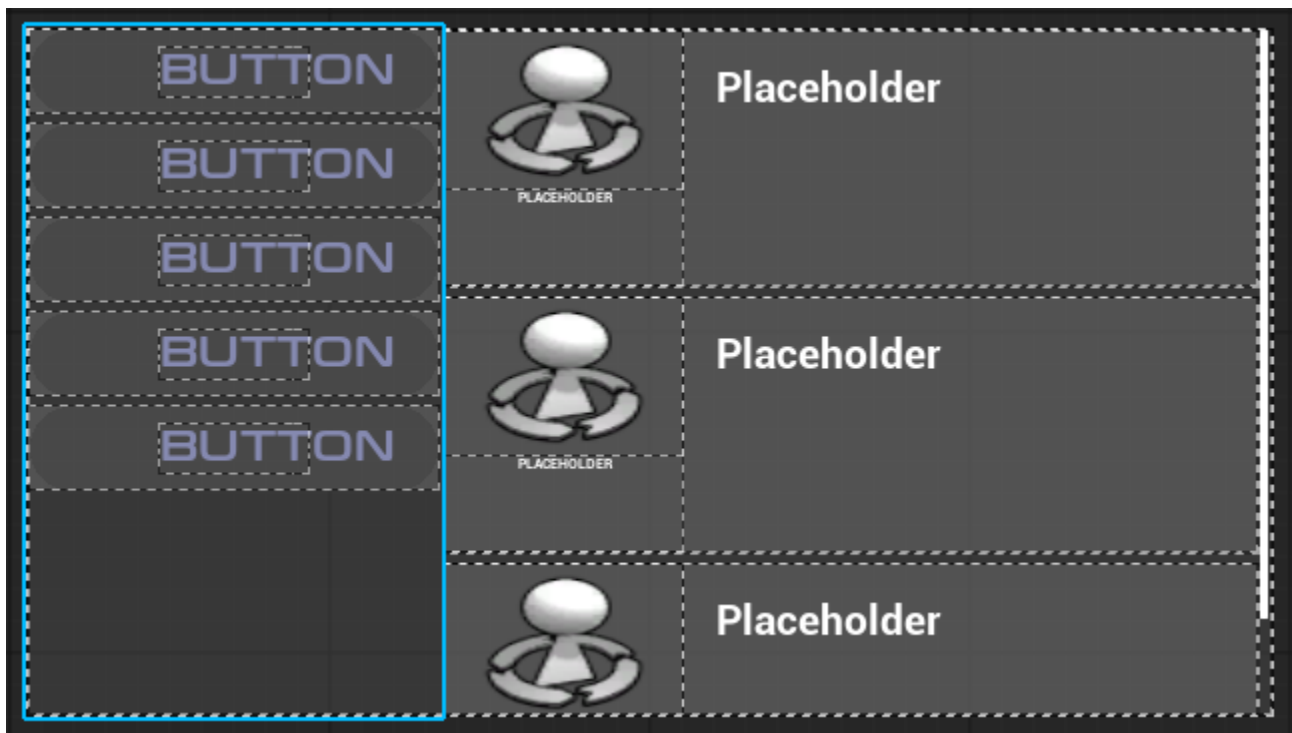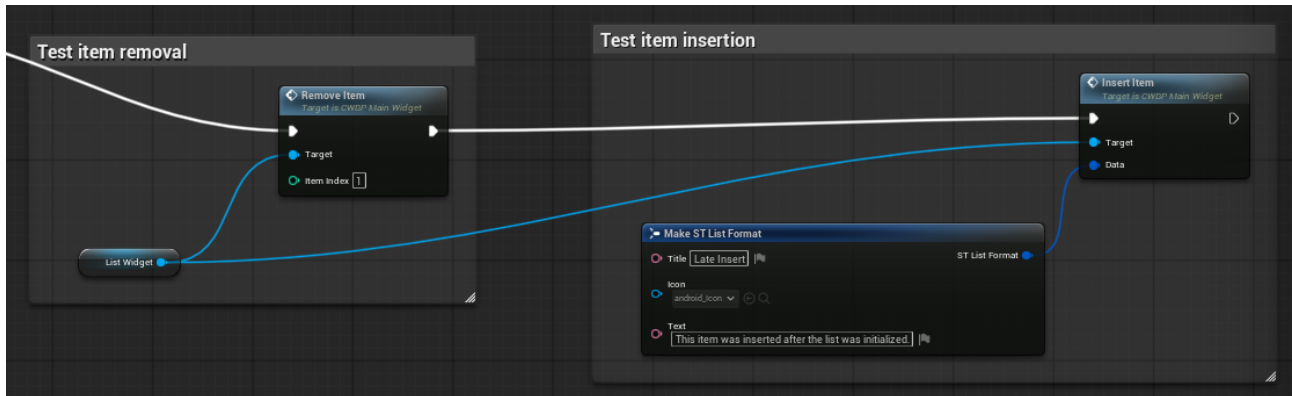

HOW TO USE
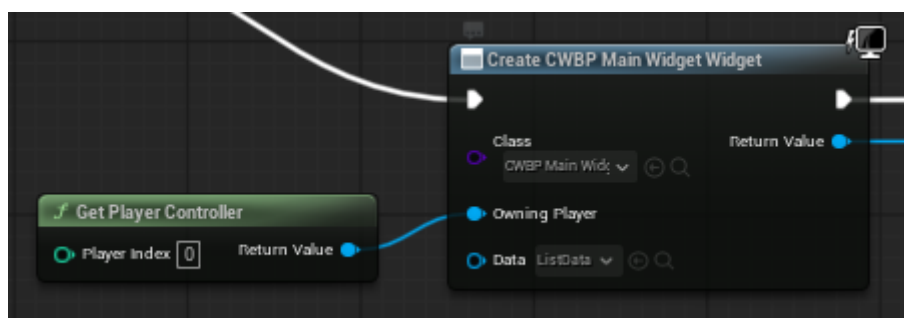
Just create the MainWidget and provide an optional ListData Data Table (a table using the specified structure described above).

If later on in the game you need to insert or remove items, use the two provided functions:

Localization should be done on the Input Data itself, which happens before the Widget.