

How To Add New Room and Furniture

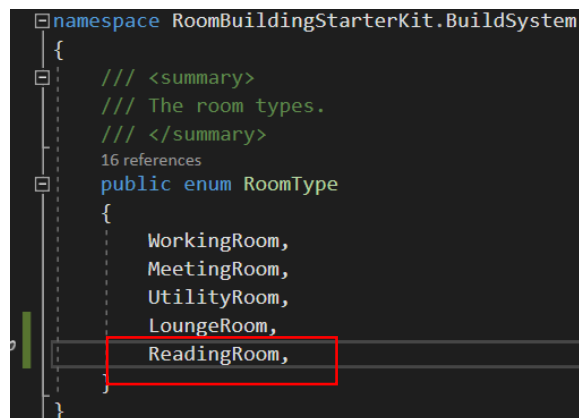
In this tutorial, I will show you how to add a new room in Room Building Starter Kit.

1. Add New Room Type

We will add a reading room by using the exist resources. For adding a new room, first we should add the new room type in:

“Assets/RoomBuildingStarterKit/Assets/Scripts/Common/RoomType.cs”

In this example, let’s add a “ReadingRoom”:

A screenshot of a code editor showing the RoomType.cs file. The code is in C# and defines an enum RoomType. The enum values are WorkingRoom, MeetingRoom, UtilityRoom, LoungeRoom, and ReadingRoom. The ReadingRoom value is highlighted with a red rectangle. The code is as follows:

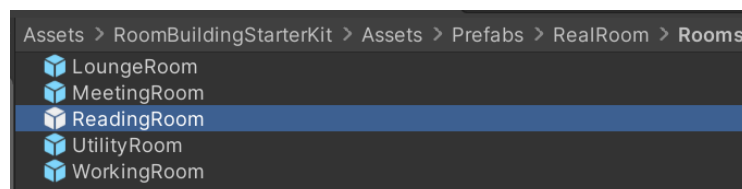
```
namespace RoomBuildingStarterKit.BuildSystem
{
    /// <summary>
    /// The room types.
    /// </summary>
    16 references
    public enum RoomType
    {
        WorkingRoom,
        MeetingRoom,
        UtilityRoom,
        LoungeRoom,
        ReadingRoom,
    }
}
```

2. Create New Room Prefab

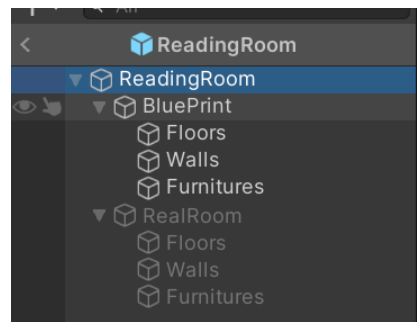
Here, we can use the exist room prefab to create a new one. Let’s drag the existing working room prefab from Project window to Hierarchy window:

“Assets/RoomBuildingStarterKit/Assets/Prefabs/RealRoom/Rooms/WorkingRoom.prefab”

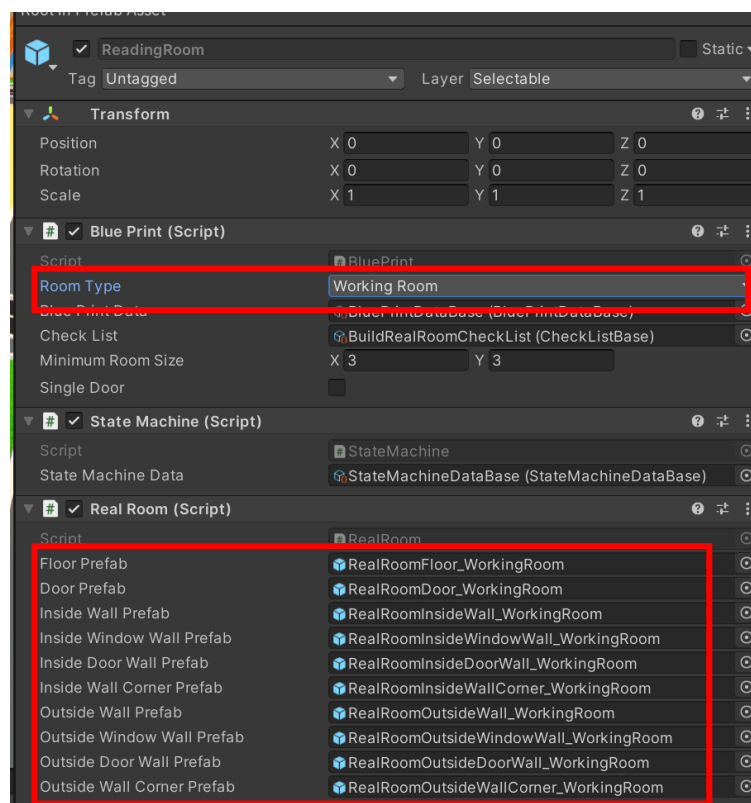
Then drag the WorkingRoom from Hierarchy window back to Project Window, select **Original Prefab** on the Create Prefab popup window, then rename the new prefab to “ReadingRoom”:



The hierarchy of ReadingRoom.prefab is:



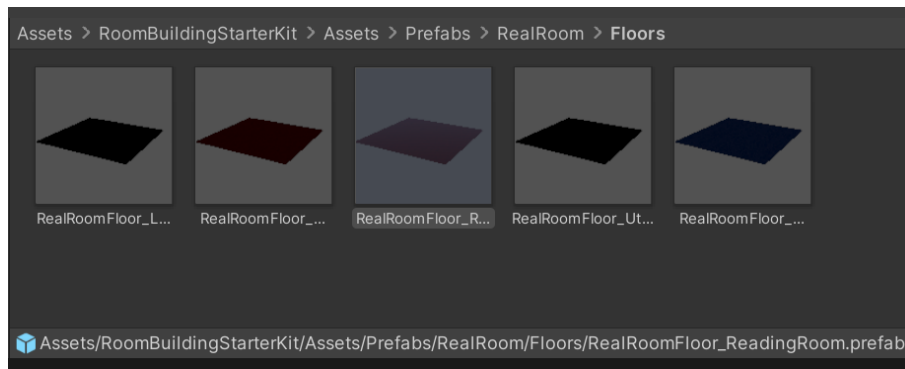
Then we select ReadingRoom, check its Inspector window. The red rectangle parts are what we need to modify. First, change the **Room Type** to **Reading Room**:



3. Create Floor, Door and Wall prefabs

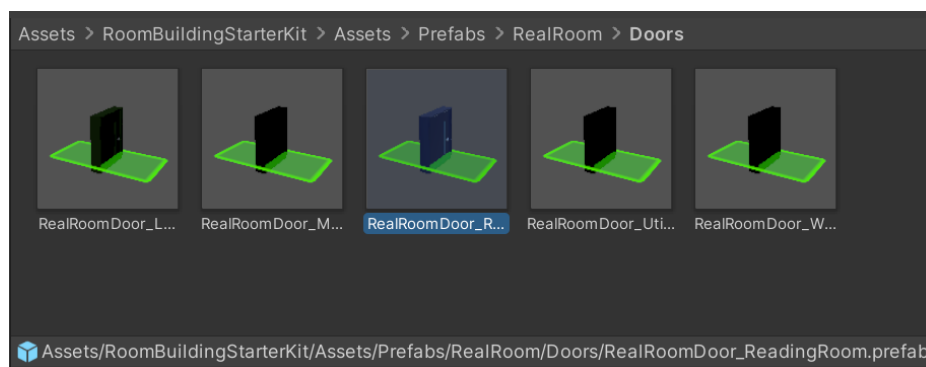
Create a **RealRoomFloor_ReadingRoom.prefab** under:

“Assets/RoomBuildingStarterKit/Assets/Prefabs/RealRoom/Floors/”



Then create a **RealRoomDoor_ReadingRoom.prefab** under:

“Assets/RoomBuildingStarterKit/Assets/Prefabs/RealRoom/Doors/”



Create four inside wall prefabs under:

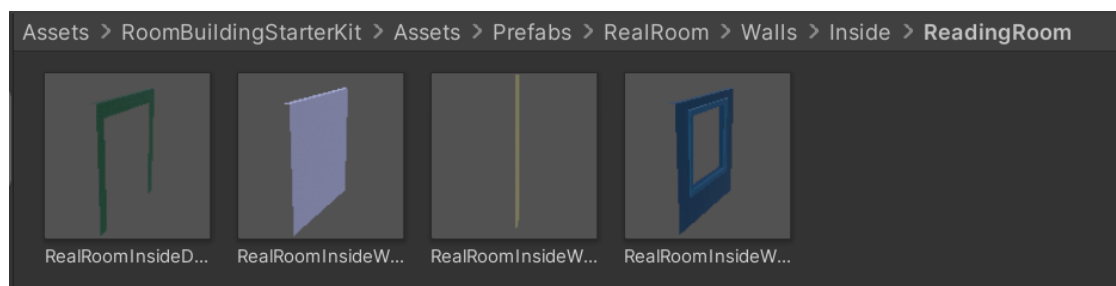
“Assets/RoomBuildingStarterKit/Assets/Prefabs/RealRoom/Walls/Inside/ReadingRoom/”

RealRoomInsideDoorWall_ReadingRoom.prefab for reading room’s inside wall around door;

RealRoomInsideWall_ReadingRoom.prefab for reading room’s inside wall;

RealRoomInsideWallCorner_ReadingRoom.prefab for reading room’s inside wall corner;

RealRoomInsideWindowWall_ReadingRoom.prefab for reading room’s inside wall around window.



Create four outside wall prefabs under:

“Assets/RoomBuildingStarterKit/Assets/Prefabs/RealRoom/Walls/Outside/ReadingRoom/”

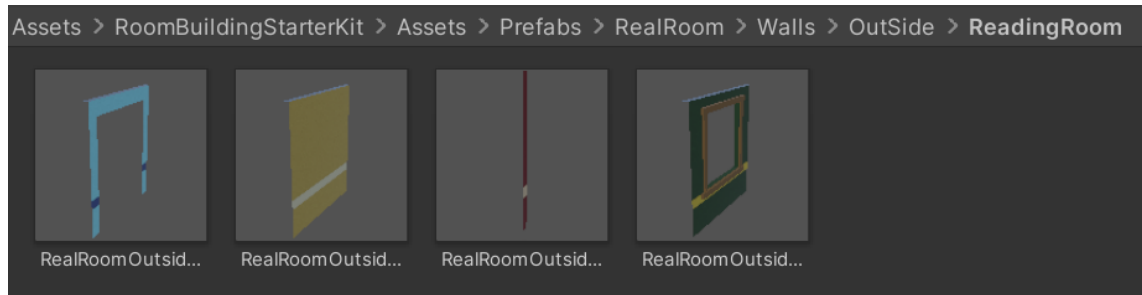
RealRoomOutsideDoorWall_ReadingRoom.prefab for reading room’s outside wall

around door;

RealRoomOutsideWall_ReadingRoom.prefab for reading room's outside wall;

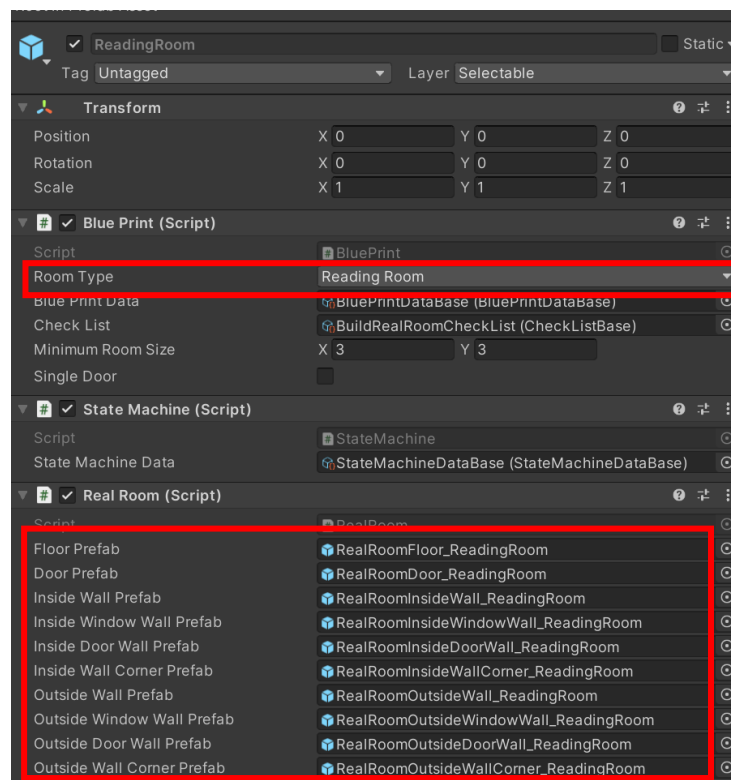
RealRoomOutsideWallCorner_ReadingRoom.prefab for reading room's outside wall corner;

RealRoomOutsideWindowWall_ReadingRoom.prefab for reading room's outside wall around window.



4. Change component prefab references

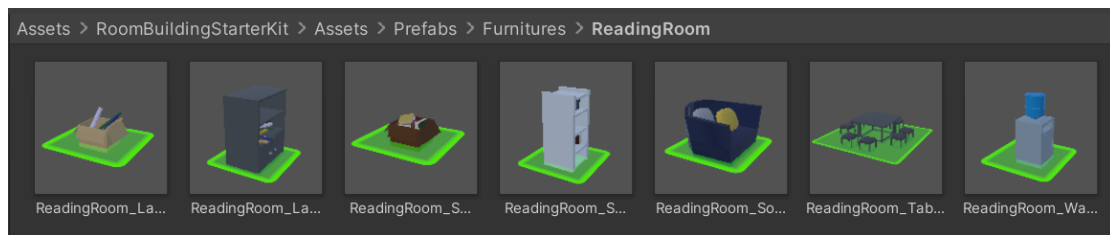
Change the prefab references of the RealRoom prefab to the floor, door and wall prefabs created above:



5. Create furniture prefabs

Create furniture prefabs for ReadingRoom under:

“Assets/RoomBuildingStarterKit/Assets/Prefabs/Furnitures/ReadingRoom/”



6. Add furniture types

Then we need to add these new furniture types in:

“Assets/RoomBuildingStarterKit/Assets/Scripts/Common/FurnitureType.cs”

Notice that the FurnitureType’s prefix should be room name like “ReadingRoom_xx”, I made a property drawer for Enum FurnitureType. The drop down menu could be nested by using the room name prefix. Notice that the new furniture type can only be added in the end of the enum list. **If you insert a new type into the list, all the furniture after it will have wrong type, you need to set these furniture to right type manually.**

```
namespace RoomBuildingStarterKit.BuildSy
{
    /// <summary>
    /// The furniture type definitions.
    /// </summary>
    29 references
    public enum FurnitureType
    {
        Common_Window,
        Common_Door,
        Common_SmallCabinet,
        Common_SmallBookCase,
        Common_LargeBookCase,
        Common_WaterDrink,
        Common_Rustbin,
        Common_SmallPlant,
        Common_MiddlePlant,
        Common_LargePlant,
        Common_OfficeDoor,

        WorkingRoom_SmallTable,
        WorkingRoom_MiddleTable,
        WorkingRoom_LargeTable,

        MeetingRoom_MeetingTable,

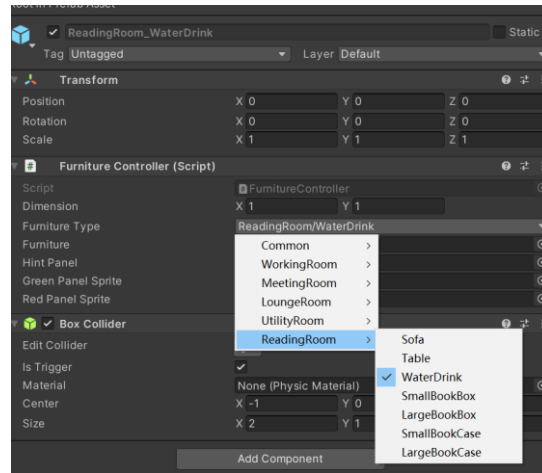
        LoungeRoom_TeaTable,
        LoungeRoom_Fridge,
        LoungeRoom_Sofa,

        UtilityRoom_Cabinet,
        UtilityRoom_Table,
        UtilityRoom_NewspaperBox,
        UtilityRoom_BooksBox,

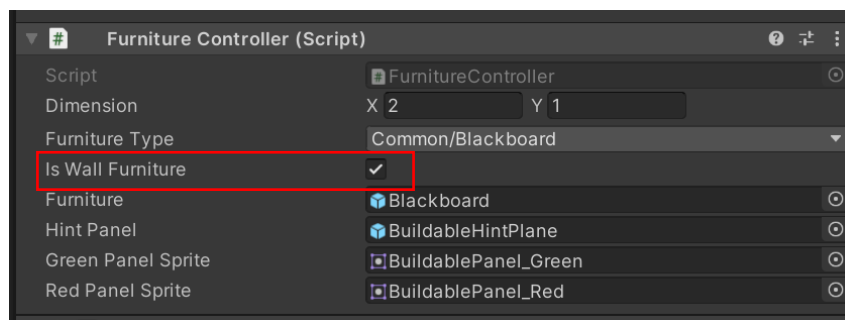
        ReadingRoom_Sofa,
        ReadingRoom_Table,
        ReadingRoom_WaterDrink,
        ReadingRoom_SmallBookBox,
        ReadingRoom_LargeBookBox,
        ReadingRoom_SmallBookCase,
        ReadingRoom_LargeBookCase
    }
}
```

7. Change prefabs' furniture types

Change the furniture prefabs' **Furniture Type** property to the new added furniture types:

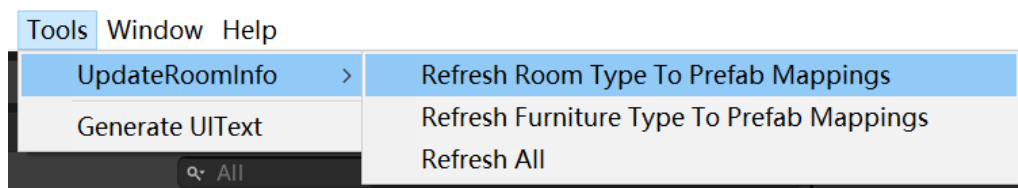


If you make a wall furniture like television or blackboard. Don't forget to check the "Is Wall Furniture" box. This option determines whether a furniture can be built on the wall.



8. Create Room Type To Prefab Mappings

This is an important step, we need to create mappings between room type and room prefab. In this example, the mapping is ReadingRoom Type to ReadingRoom prefab. Click **Tools > UpdateRoomInfo > Refresh Room Type To Prefab Mappings**. This will create mappings automatically:

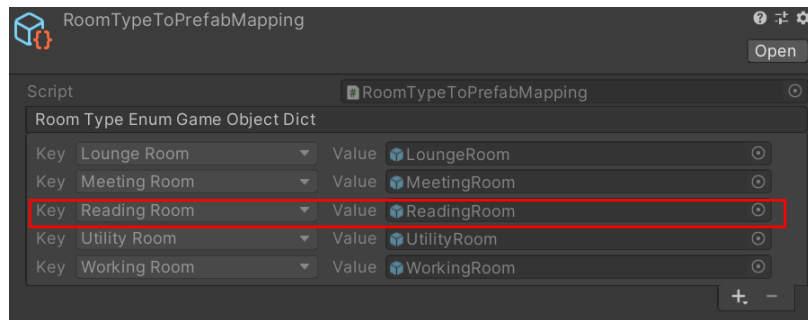


Check the:

"Assets/RoomBuildingStarterKit/Assets/ScriptableObjects/Mappings/RoomTypeToPrefabM

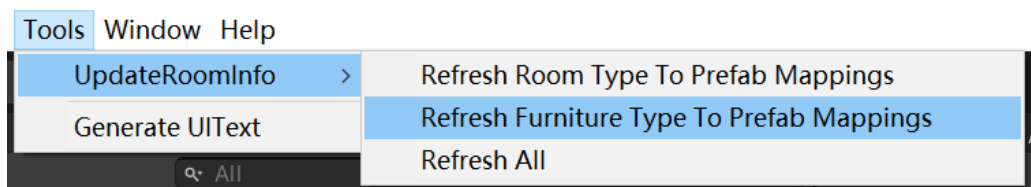
apping.asset”

The reading room mapping should be added:



9. Create Furniture Type To Prefab Mappings

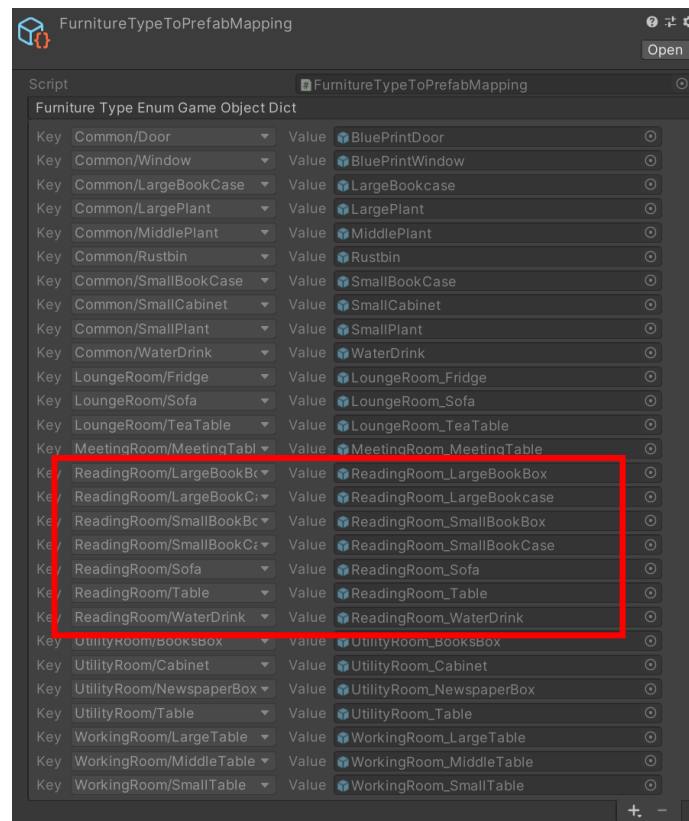
Click **Tools > UpdateRoomInfo > Refresh Furniture Type To Prefab Mappings**. This will create mappings automatically.



Check the:

“Assets/RoomBuildingStarterKit/Assets/ScriptableObjects/Mappings/FurnitureTypeToPrefabMapping.asset”

The reading room’s furniture mappings should be added:

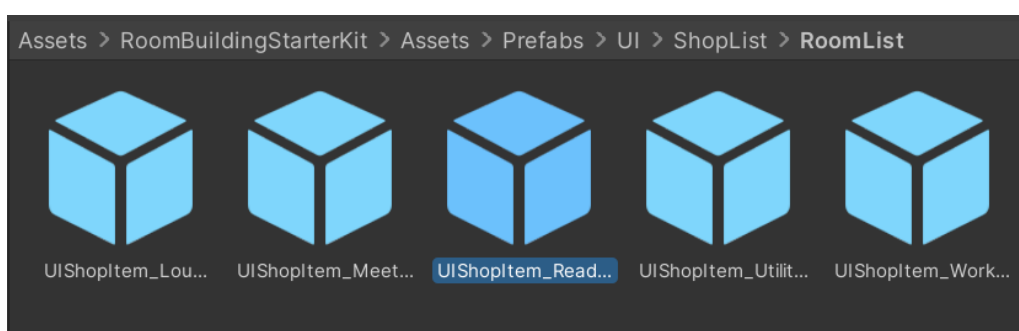


10. Create ReadingRoom Shop List Item

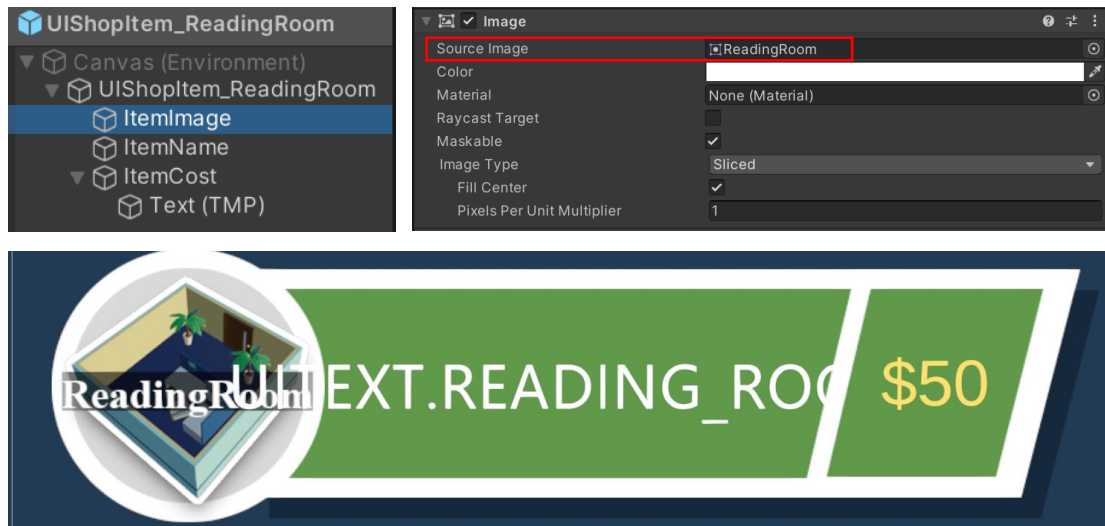
Drag:

“Assets/RoomBuildingStarterKit/Assets/Prefabs/UI/ShopList/RoomList/UIShopItem_WorkingRoom.prefab”

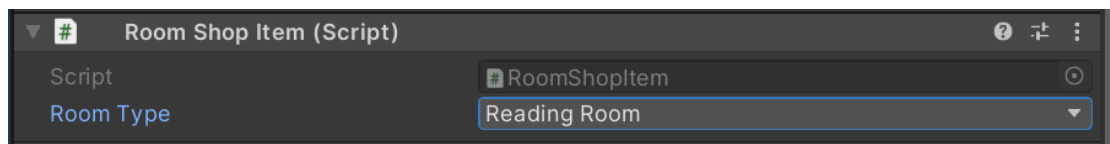
from Project window to Hierarchy window. Then drag it back to Project window to create a new prefab and rename it to **UIShopItem_ReadingRoom**:



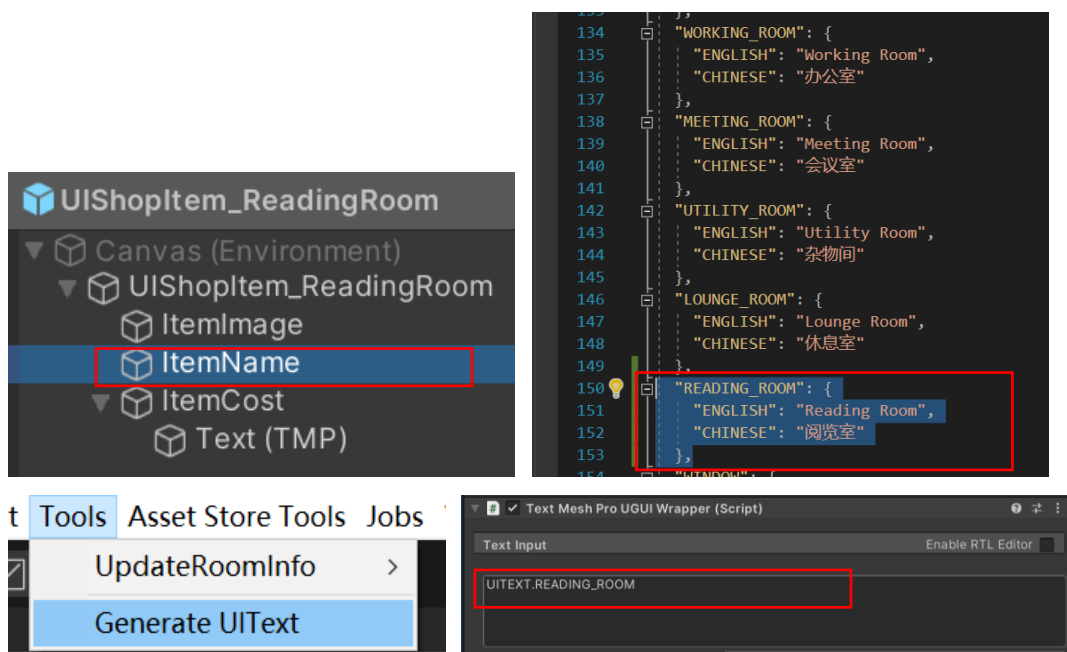
In the UIShopItem_ReadingRoom’s hierarchy, change the ItemImage from WorkingRoom to ReadingRoom’s image:



Notice that there should has a component named **“Room Shop Item”** attached on the `UIShopItem_ReadingRoom` prefab. The **Room Type** should be **Reading Room**.



Then we need to add a new `UIText` for reading room’s name by following **Multi-Language** document:



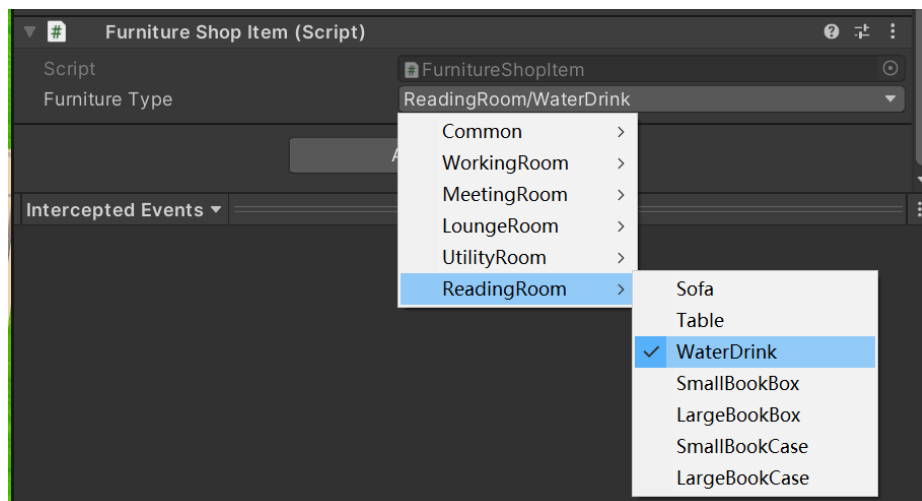
11. Create ReadingRoom’s Furniture Shop List Items

Create `UIShopItem` furniture prefabs according to the furnitures we created for ReadingRoom before. Changes these shop items’ image and `UIText` same with the

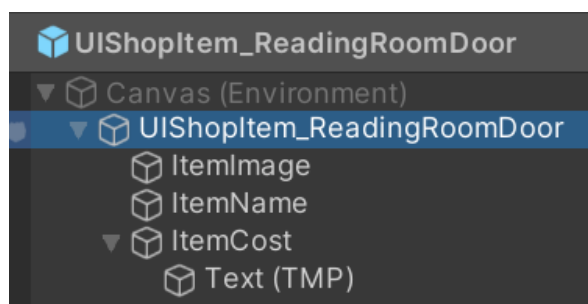
room shop item we just made.

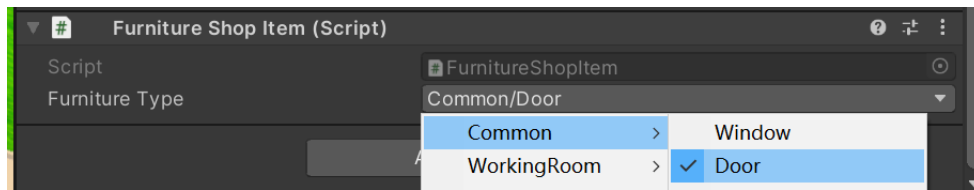


These furniture shop items also should have a component named **“Furniture Shop Item”** which has a **Furniture Type** property should be same with their associate furniture types we added above:

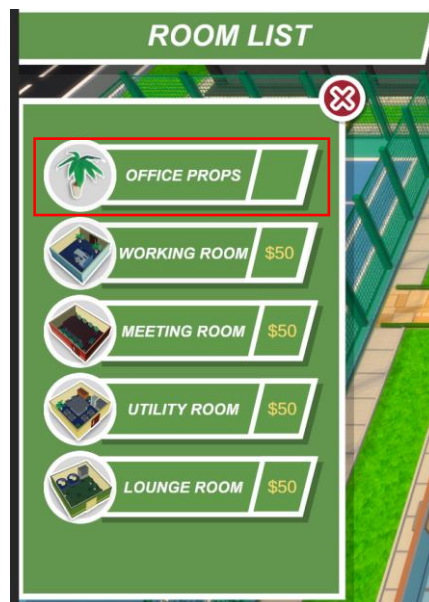
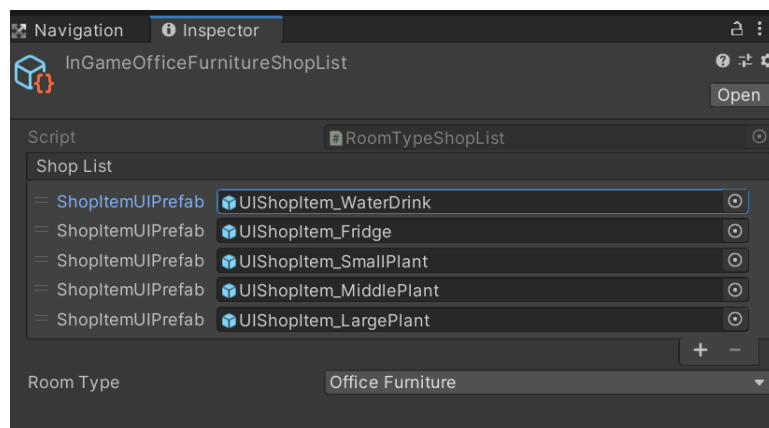
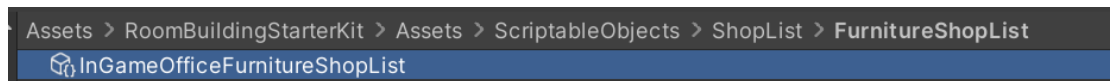


Another thing is you should create an UIShopItem_ReadingRoomDoor prefab with the image of the reading room’s door and choose its **Furniture Type** to **Common/Door**:





If you want to add furnitures which could build outside room in the office. You should add them in InGameOfficeFurnitureShopList.asset:



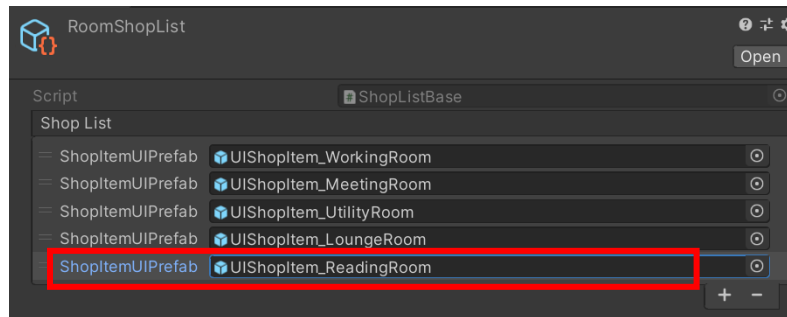
12. Add UIShopItem prefab to RoomShopList

Select:

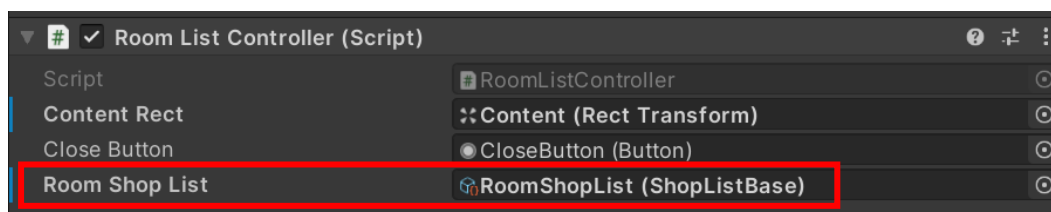
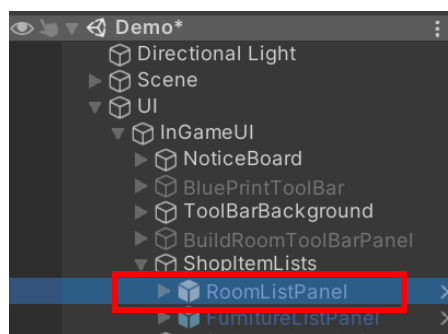
“Assets/RoomBuildingStarterKit/Assets/ScriptableObjects/ShopList/RoomShopList.asset”

Add UIShopItem_ReadingRoom.prefab into Room Shop List. You can reorder the

shop list items, the item order in the shop list determines the item order in the Room Shop List scroll view:



The **RoomListPanel** will use the **RoomShopList** to generate room list scroll view:

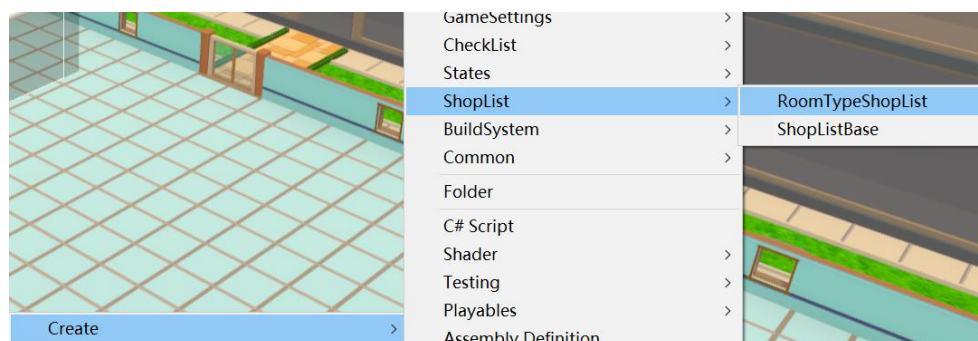


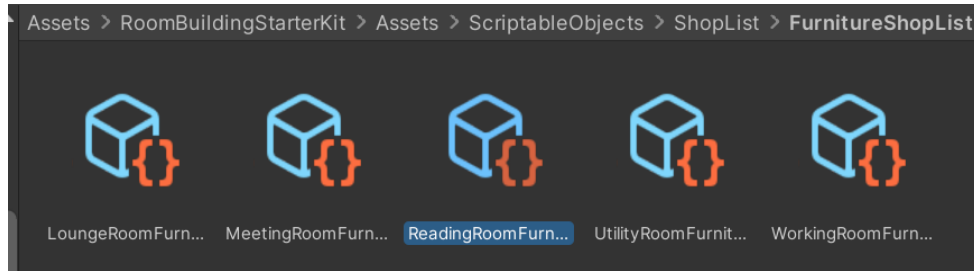
13. Add UIShopItem prefabs to FurnitureShopList

Goto:

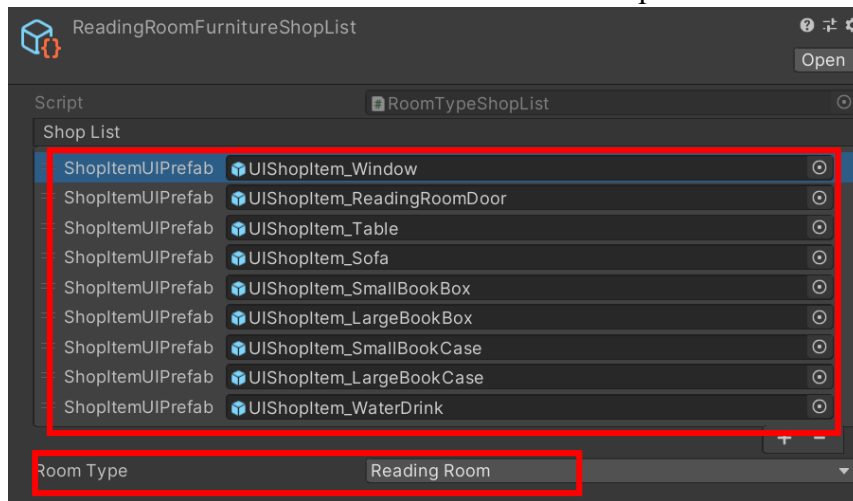
“Assets/RoomBuildingStarterKit/Assets/ScriptableObjects/ShopList/FurnitureShopList”

Right click on the Project window, select **Create > ShopList > RoomTypeShopList** to create a new furniture shop list, rename it to “**ReadingRoomFurnitureShopList**”:

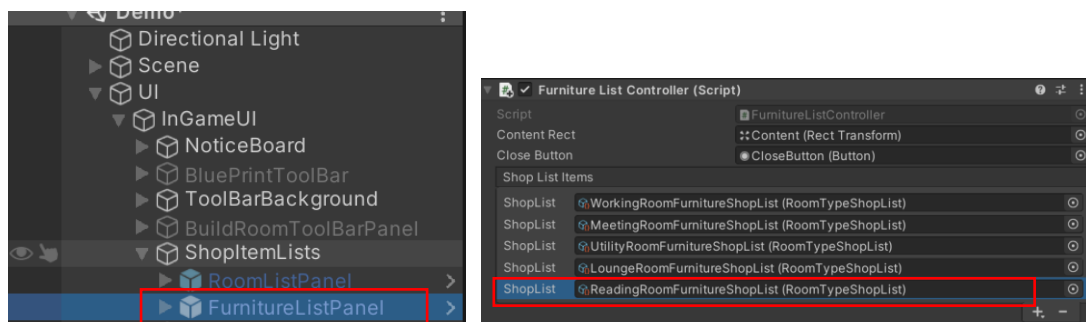




Add furniture ShopItems we just created for ReadingRoom in Shop List, then choose **Room Type to Reading Room**. You can reorder the shop list items, the item order in the shop list determines the item order in the Furniture Shop List scroll view.



Next, we need click **FurnitureListPanel** in Hierarchy window. In its **Furniture List Controller** component, add **ReadingRoomFurnitureShopList** we just created. The **FurnitureListPanel** will choose one of the FurnitureShopLists to generate furniture list scroll view by current building room's type:



That's all work we need to do to add a new room!



If I left something unclear or if you encounter any problem to this project. Please don't hesitate to contact with me with:

Email: hurrywon@163.com

Discord: <https://discord.gg/J7JTGqcf3v>