

CI6 Chest Pickup Custom Inspector

In this game project, the Game Designers have designed a feature called Chest Pickups. These small chests are going to spawn around the level at very specific points. If the player reaches one and opens it, they will get a random item. Since the Level designers are iterating a lot on the level design they are going to place a lot of chests. You decide to help by making their lives a bit easier with a tool.

Exercise

- Create a class called ChestPickUp, ChestPickupController, and a Custom Inspector for the ChestPickupController
- The ChestPickupController script should be assigned to an empty game object in the scene.
- ChestPickup script should be assigned to a prefab, also named ChestPickup.
- The ChestPickup class should have one field named "minimumDistance", which is the minimum distance that needs to be between this chest and the other chests.
- In the Custom Inspector there should be a button at the top called "Add new Chest Pickup"
- Clicking the "Add new Chest Pickup" should create a new Prefab that has the ChestPickup script attached and place this as a child object to the ChestPickupController.
- For each created prefab there should be 4 fields
 - A float field named "Distance"
 - A button named "Check Distance"
 - A Button named "Save position"
 - A button named "Remove"
- The Distance field should change the minimumDistance value in ChestPickup prefab. Changing this value should be saved in the prefab.
- Clicking the "Check Distance" button should check if the minimum distance rule to other chests is obeyed. If not, indicate this by Drawing a red line between this chest and the one that is too close.
- Clicking the "Save position" button should save the position of the chest to the ChestController, so it can be used in the game.
- The "Remove" button should remove the Chest from the list and also the Prefab in the game.
- Dragging the chest around will update it's position, this is the position that should be saved so it is possible to spawn the chest at this location during the game.
- Below the list of Chests should you have 3 buttons
 - "Save all chest positions"
 - "Check all chest positions"
 - "Hide / Show all chests"
- Clicking the "Save all chest positions" button should save each of the item's positions.
- Clicking the "Check all chest positions" button should check each of the chests if they obey the minimum distance rule.
- The button "Hide / Show all chests" should change depending on which state the Inspector is in. If we are showing all of the chests it should say "Hide all chests" and vice versa when they are hidden.
- Clicking the button should change the visibility of the chests.

Optional Exercises:

1. When creating a new Pickup game object, assign a random item to it.
2. Show which item has been assigned in the Custom Inspector.