Angular 2 - Grandchild Access

Asked 2 years, 10 months ago Active 2 years, 10 months ago Viewed 4k times

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How can I access a grandchild component? For example, I have a **grandparent.component.ts**, **parent.component.ts**, and **child.component.ts**. The **child.component.ts** has a list of buttons in its template. **The parent.component.ts** contains the **child.component.ts**. The **grandparent.component.ts** contains the **parent.component.ts**. I want to disable the buttons in the child.component.ts in the **grandparent.component.ts**. How do I do this?

angular

asked Oct 20 '16 at 1:39
xiotee
554 2 8 18

Here is the plkr: plnkr.co/edit/8LqSzJT73AkSpYjpTVKv?p=catalogue – xiotee Oct 20 '16 at 1:39

If BeetleJuice's answer is not feasible for you, and if you want to interact directly to the `ChildComponent` not by passing to the `ParentComponent` first then I can't think of other way than to access it via ElementRef and change the attribute manually. This is a very rough solution though. plnkr.co/edit/CfspDAbXHhSi7COsO9Lt?p=preview – Adrian Oct 20 '16 at 9:07

BTW, can't you do it by going in `ParentComponent` first? Like an event from `GrandParentComponent` then `ParentComponent` receives it then finally pass it to `ChildComponent` ? – Adrian Oct 20 '16 at 9:09

1 Answer

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I would do this with a service. The service would:

- expose an observable that emits when controls should be disabled/enabled
- expose a function that should be called to make the observable emit

- grandchild subscribes to observable `onInit`
- grandparent calls the function
- function causes observable to emit
- grandchild receives the emission, and disables/enables its controls

In asnwer to your comment, here are two alternatives that **I would not recommend**

1. You could use `@Input()` in parent component and data binding in the grandparent template to pass a value from grandparent to parent, and use the same mechanism -- `@Input()` in child and databinding in parent template -- to pass the parent's databound property to the child.
2. grandparent could write a value to the `window` object since all components can see it. eg: `window.enableControls = false` . Child could have a `setInterval` or `Observable.interval` that reads that value every 500 milliseconds and updates child controls. Clear the interval when the child component is destroyed or you'll have a memory leak.

Again, I would not recommend either option, but they would work.

edited Oct 21 '16 at 0:06

answered Oct 20 '16 at 4:47
BeetleJuice
23.2k 13 55 114

Is there an alternative that would make you access the button of the grandchild itself? – xiotee Oct 20 '16 at 5:45

@xiotee I've added a section to my answer. – BeetleJuice Oct 20 '16 at 17:17