



Take Home Exercise

This is a brief test to confirm basic ability to set up a simple contract in Solidity. It should not require more than 40-50 lines of code (quite possibly less). If you have any questions or anything is unclear, please ask us!

We've found that it takes an experienced Solidity engineer around 2 hours to do a good job of this, and it may take developers who are new to Solidity quite a bit longer. Some of the resources we used to learn Solidity can be found in the Resources section below.

One more tip: If you're new to Solidity, you'll find that many Solidity tutorials use web-based tools that don't easily enable the best practices you've learned elsewhere. We've found that the Truffle toolchain (<https://www.trufflesuite.com/>) is better aligned with how we like to work day-to-day.

Objective:

Write a contract in Solidity that is similar to The Button on reddit (r/thebutton), where participants pay a fixed amount of ether to call `press_button`, and then if 3 blocks pass without someone calling `press_button`, whoever pressed the button last can call `claim_treasure` and get the other participants' deposits. Another analogy: musical chairs, but with (virtual) money!

What we're looking for:

High quality, correctly functioning, production ready code. Send us code that you're proud to put your name on.

What to send us:

Send us an archive (zip, or tar) containing all the files you produced when implementing this. Upload your submission through our web portal, using the link provided via email.

Resources:

<https://github.com/ethereum/solidity>

<https://solidity.readthedocs.io/en/develop/>

https://ethereumbuilders.gitbooks.io/guide/content/en/solidity_tutorials.html

If you'd like any further clarification on the objective, or anything else, feel free to send us an email (specifically to Michael Gregson at mgregson@eco.com).