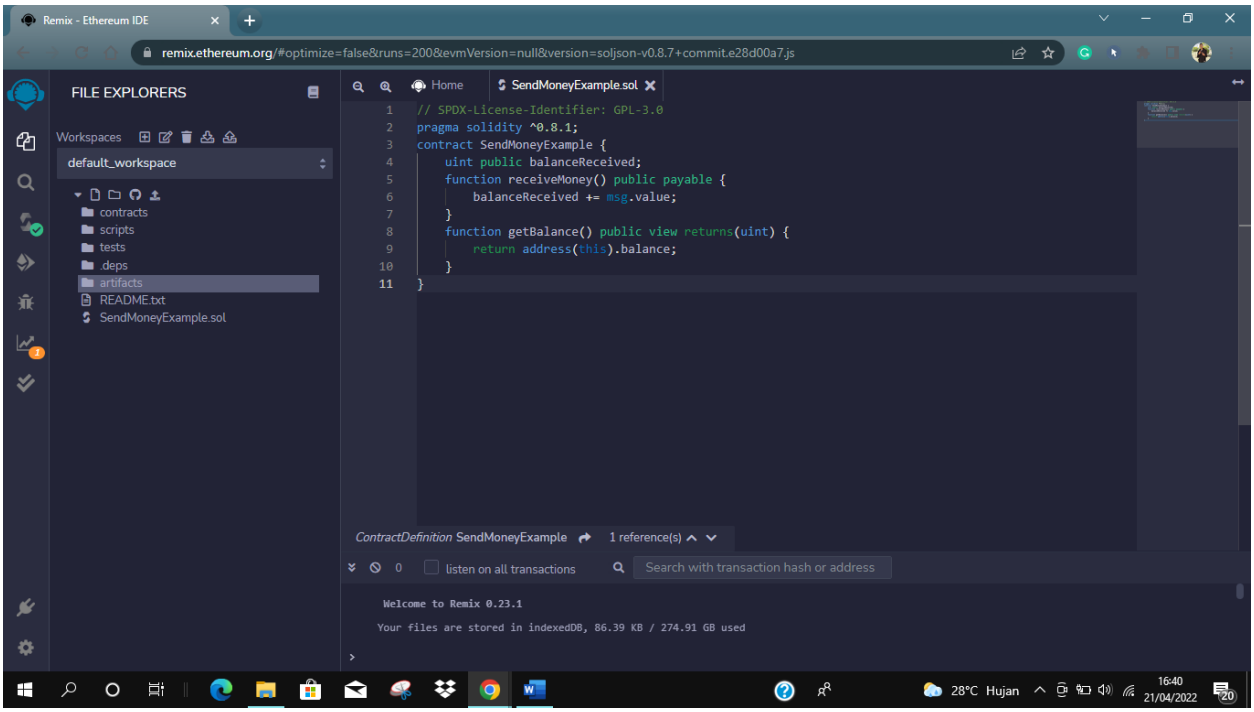
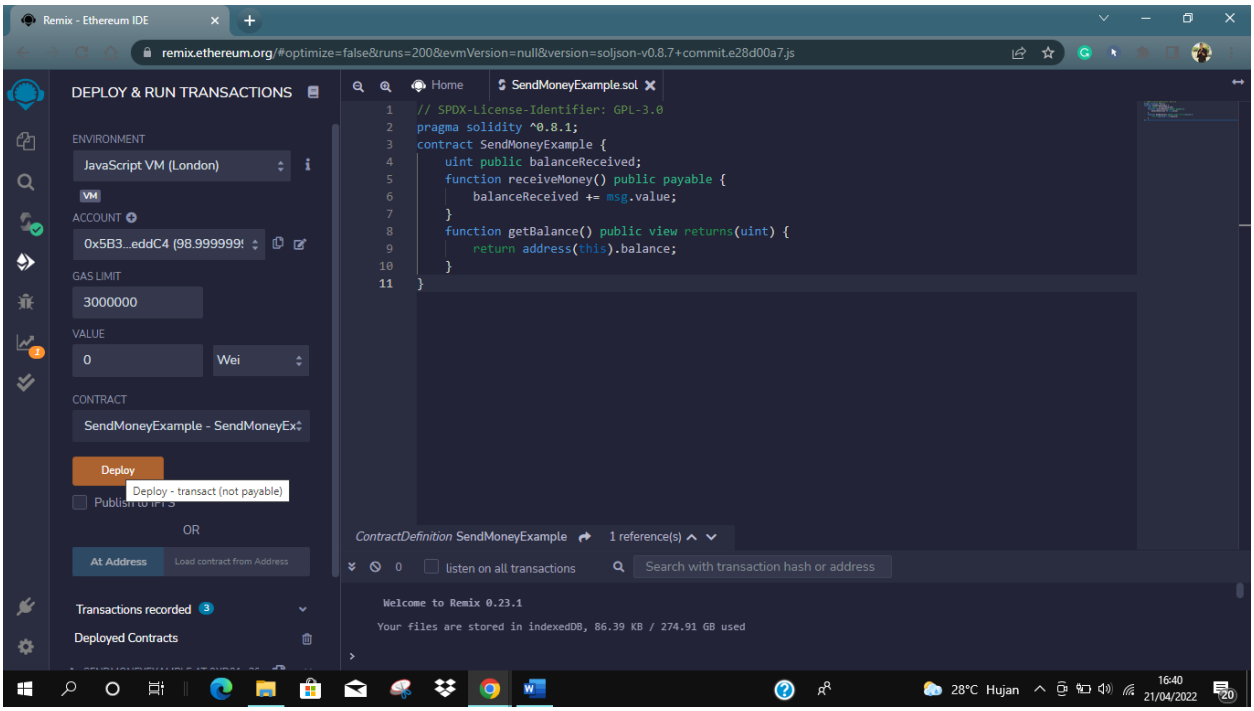
Smart Contract

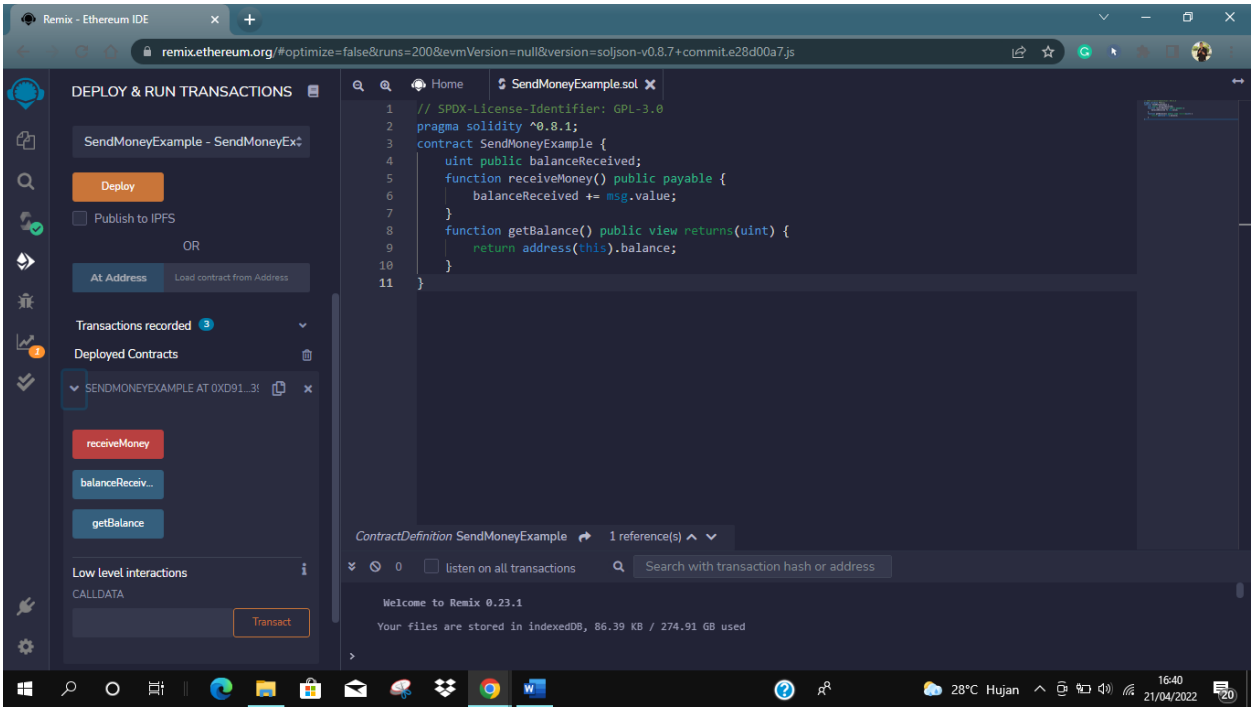
Let's start with a simple Smart Contract. Create a new file in Remix



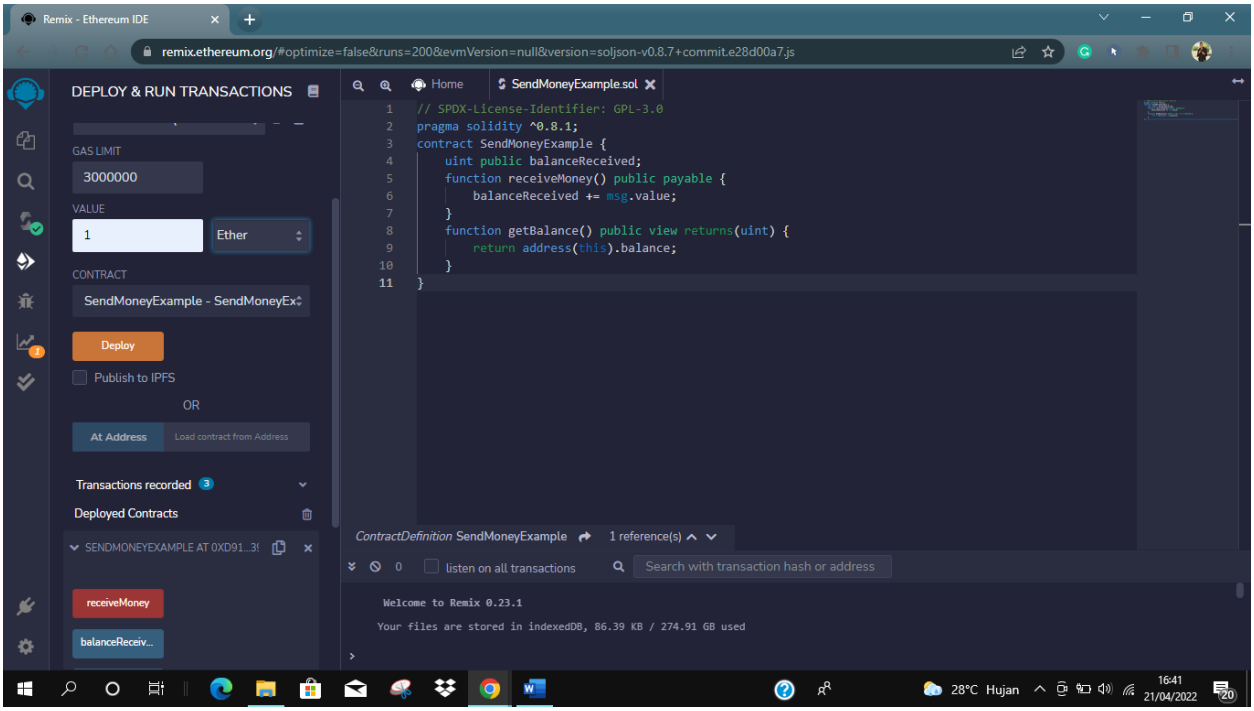
Deploy and Use the Smart Contract

Head over to the Deploy and Run Transactions Plugin and deploy the Smart Contract into the JavaScript VM

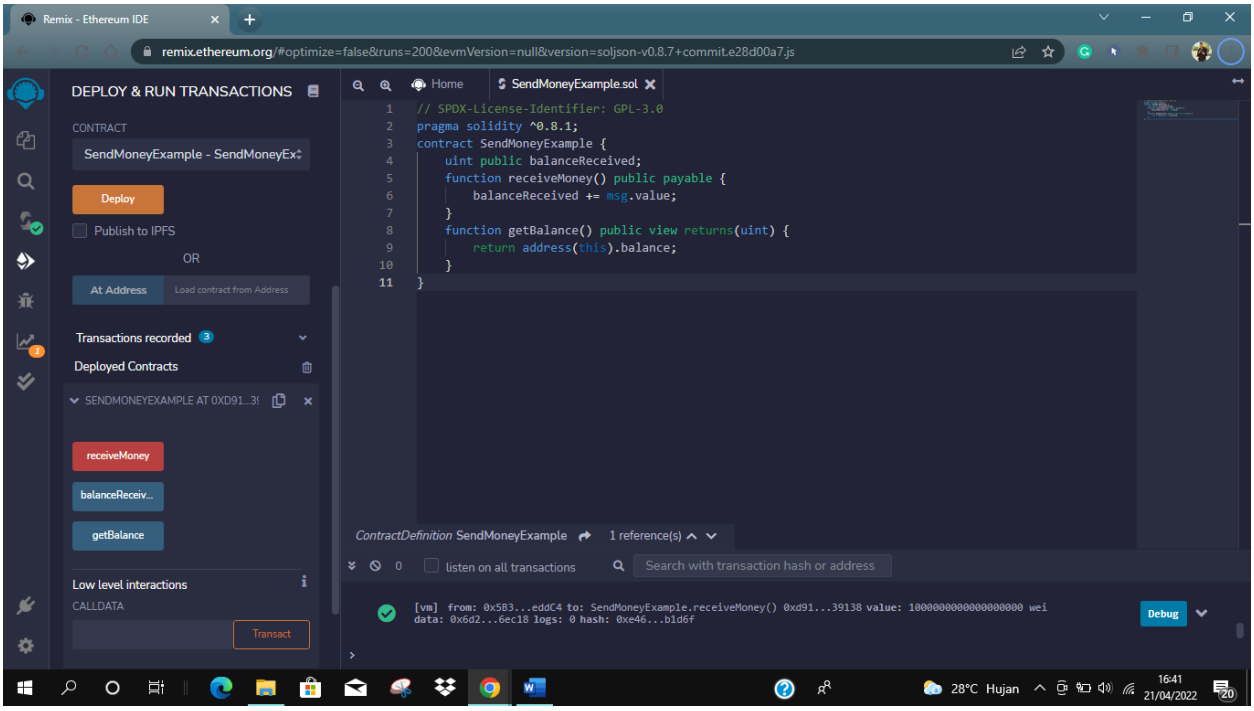




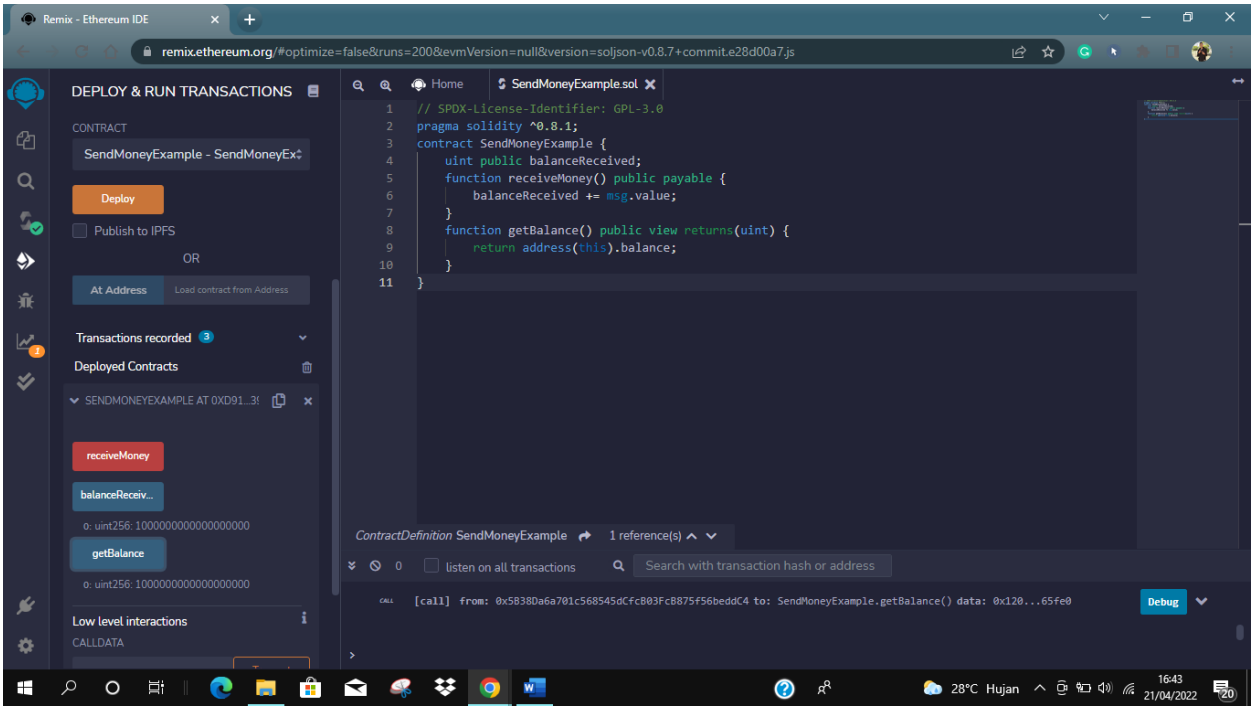
Scroll up to the "value" field and put "1" into the value input field and select "ether" from the dropdown. Then scroll down to the Smart Contract and hit the red "receiveMoney" button:



Also observe the terminal, see that there was a new transaction sent to "the network" (although just a simulation in the

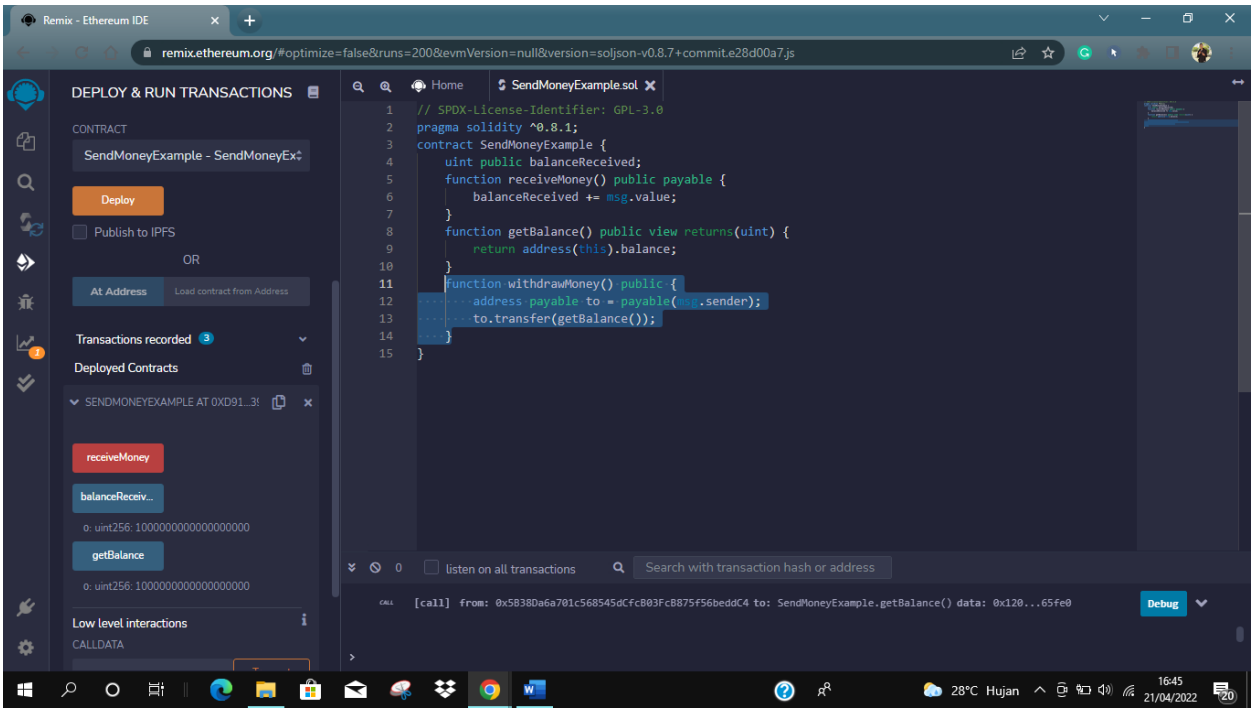


Now we sent 1 Ether, or 10^18 Wei, to the Smart Contract. According to our code the variable balanceReceived and the function getBalance() should have the same value.

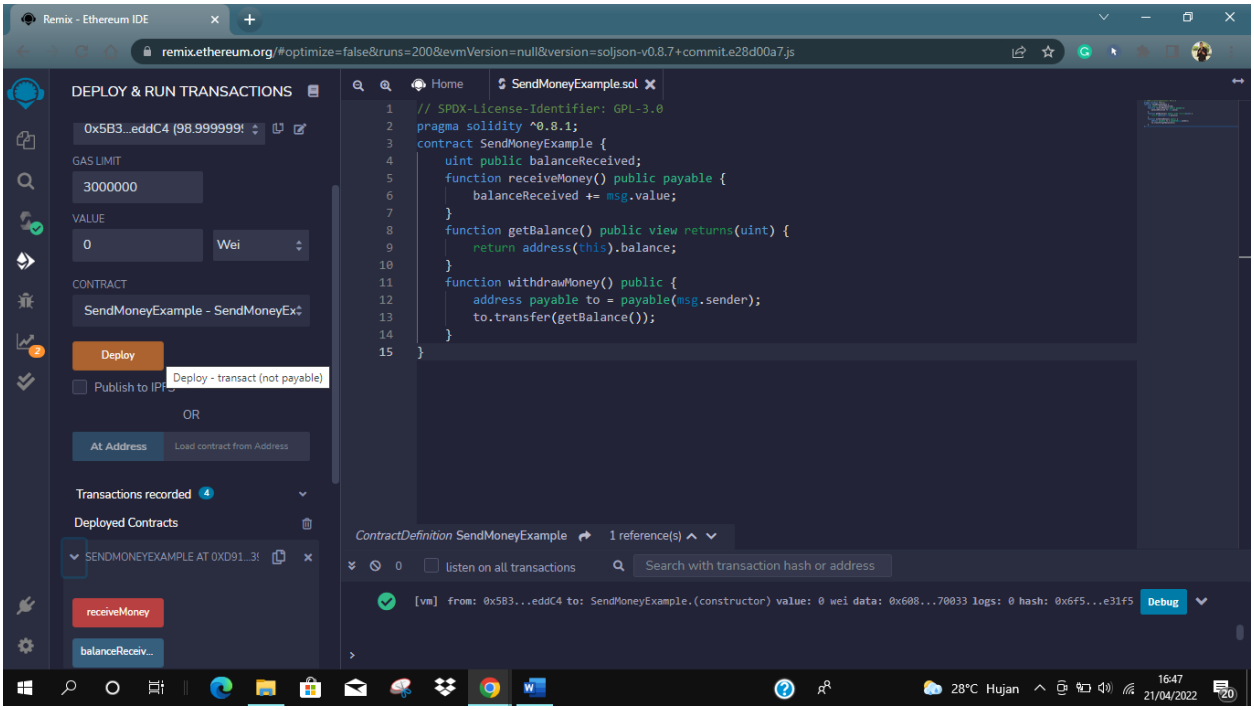


Withdraw Ether From Smart Contract

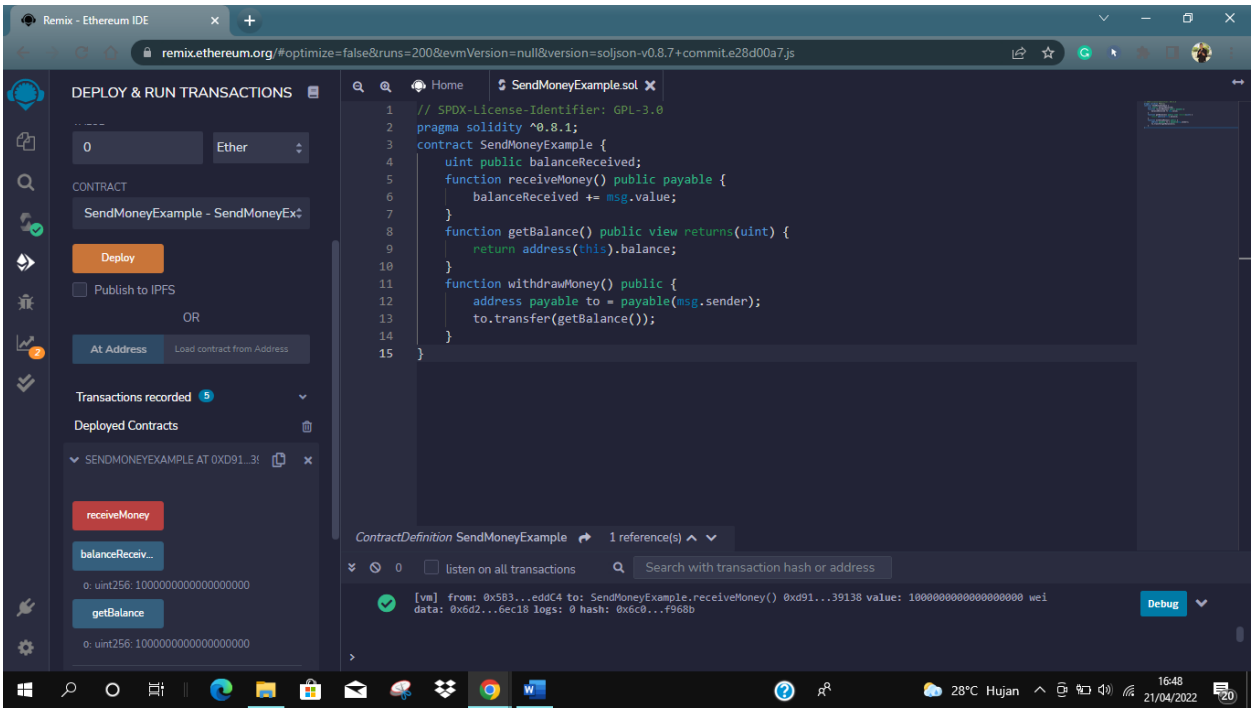
Let's add the following function to the Smart Contract:



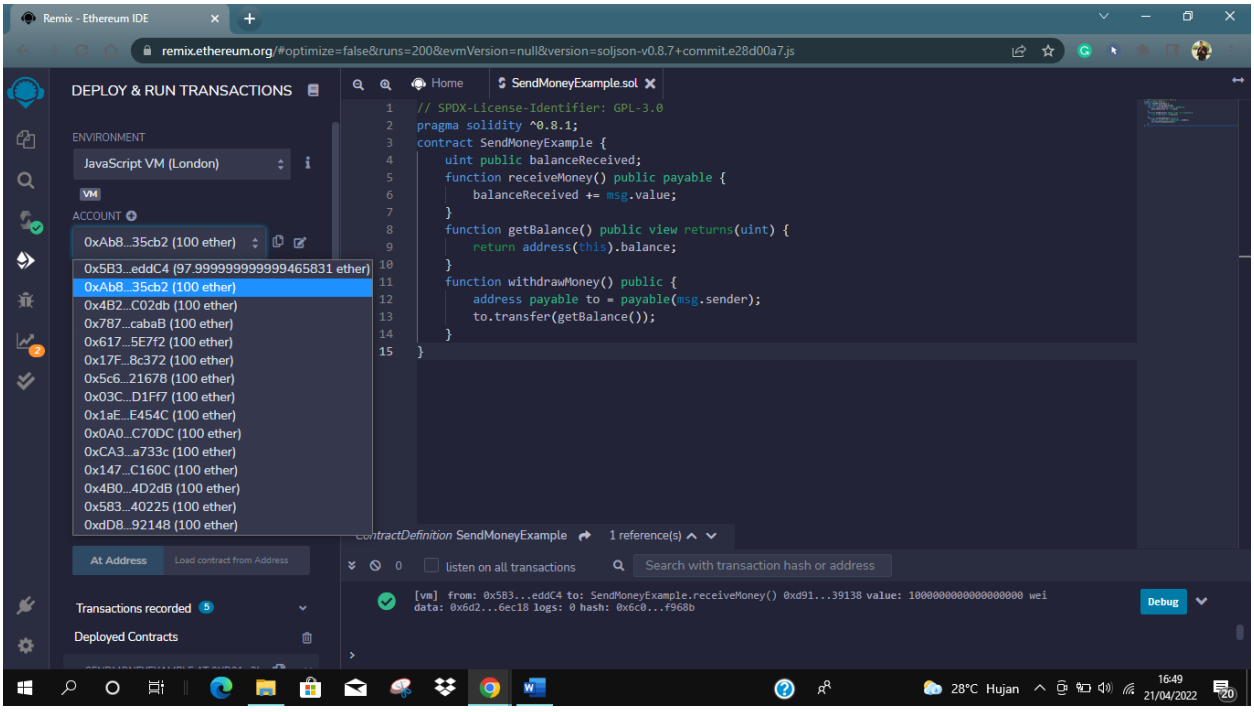
Deploy the new version and send again 1 Ether to the Smart Contract. To avoid confusion, I recommend you close the previous Instance, we won't need it anymore.



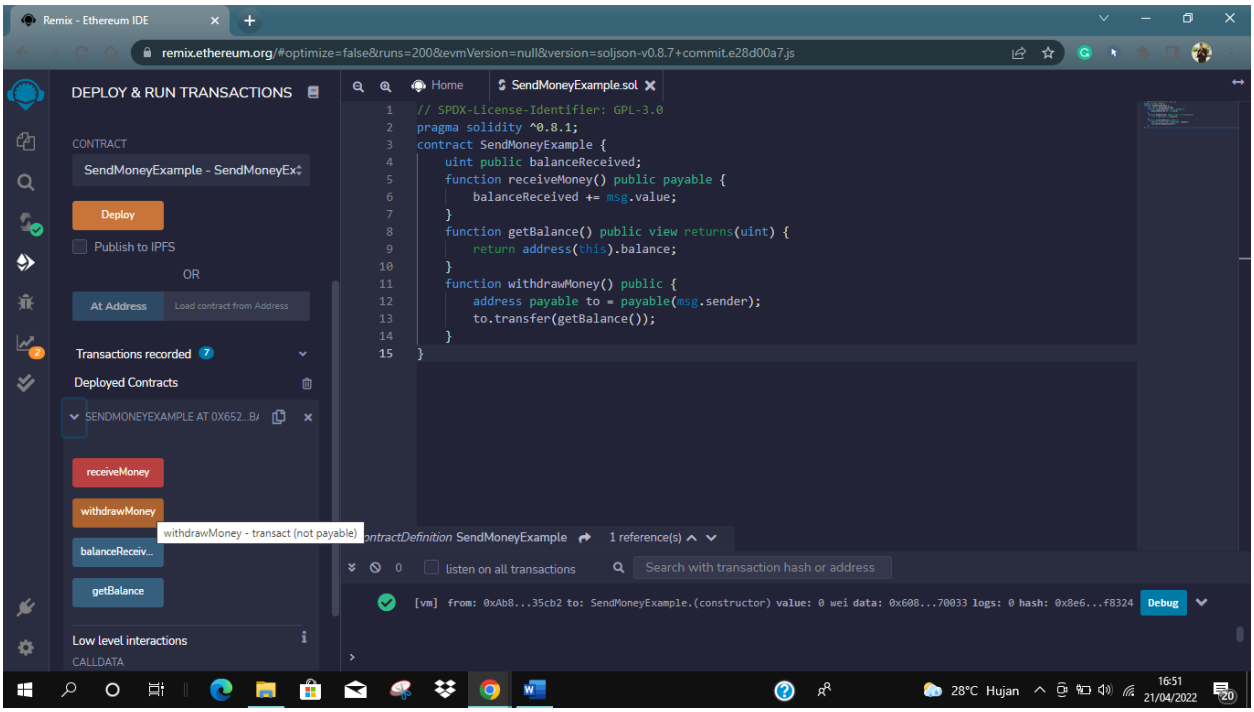
Put in "1 Ether" into the value input box. hit "receiveMoney" in your new contract Instance.

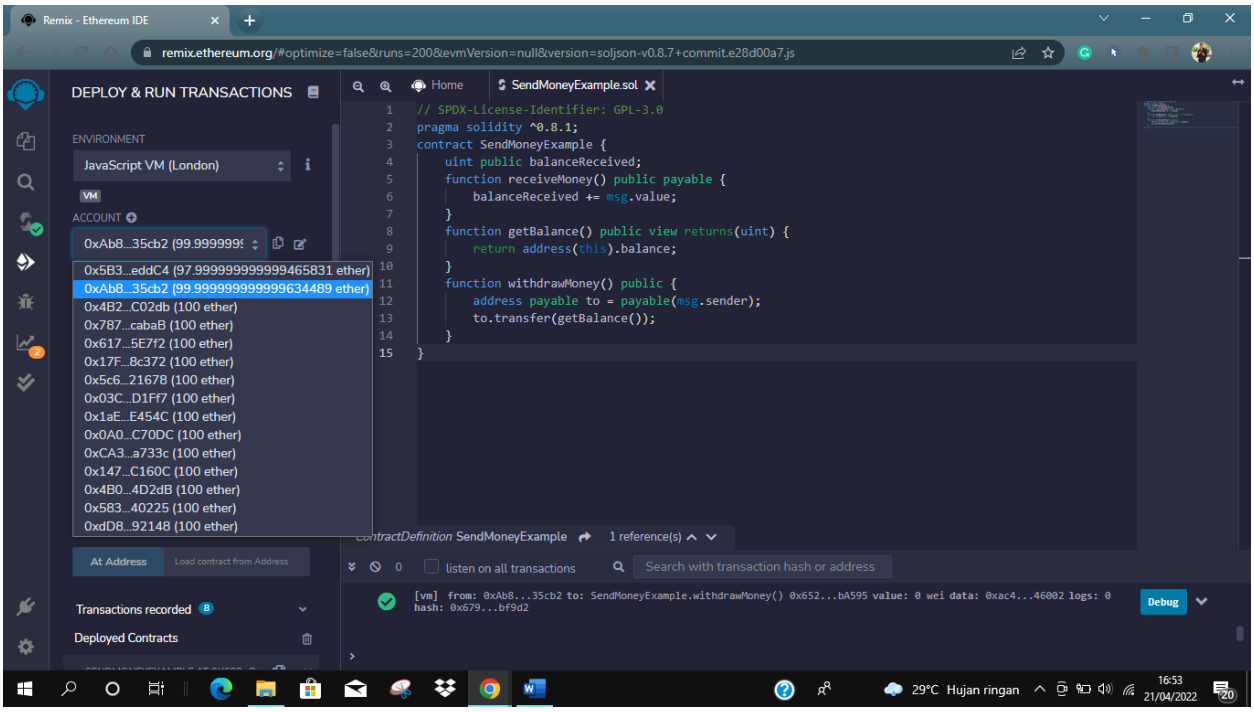


Select the second Account from the Accounts dropdown:



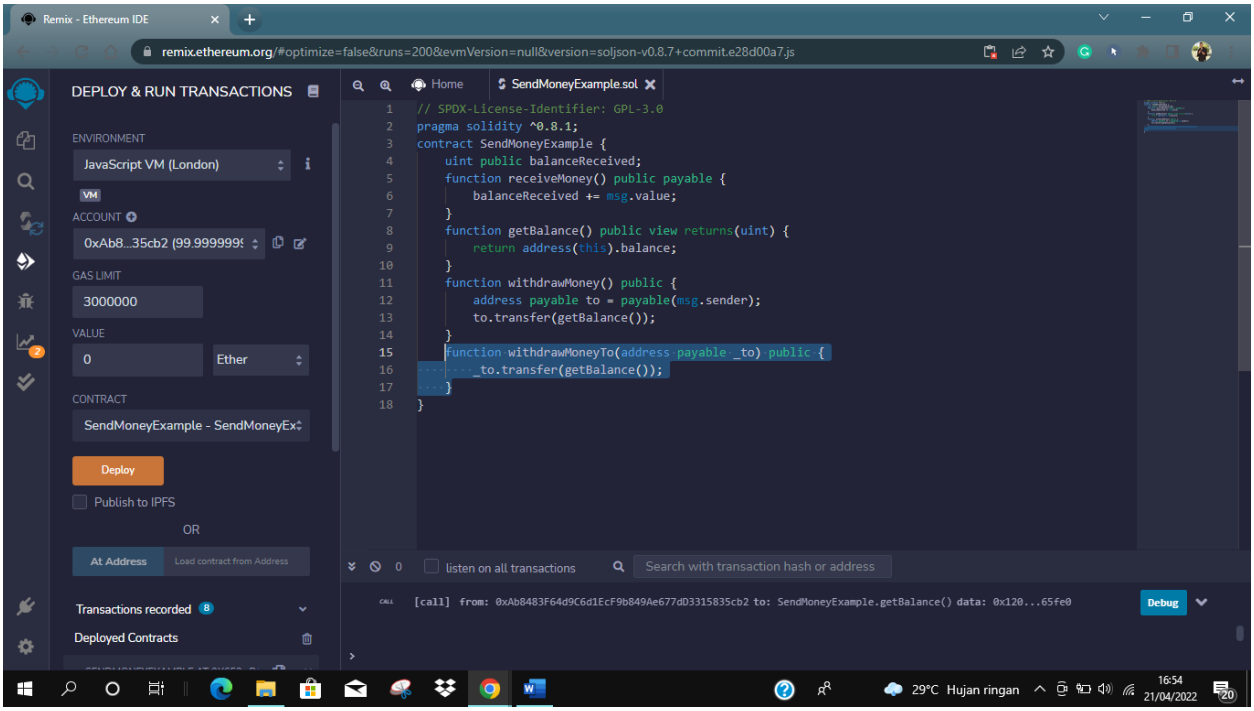
Then hit the "withdrawMoney" button:



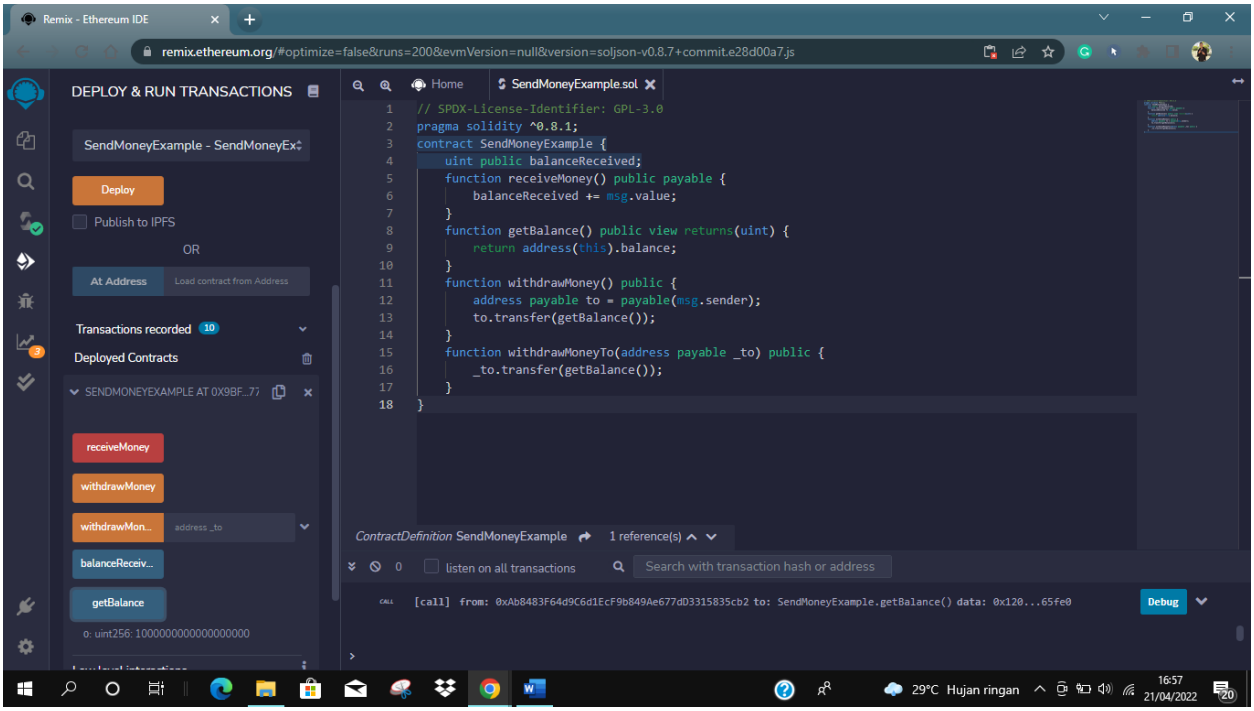


Withdraw To Specific Account

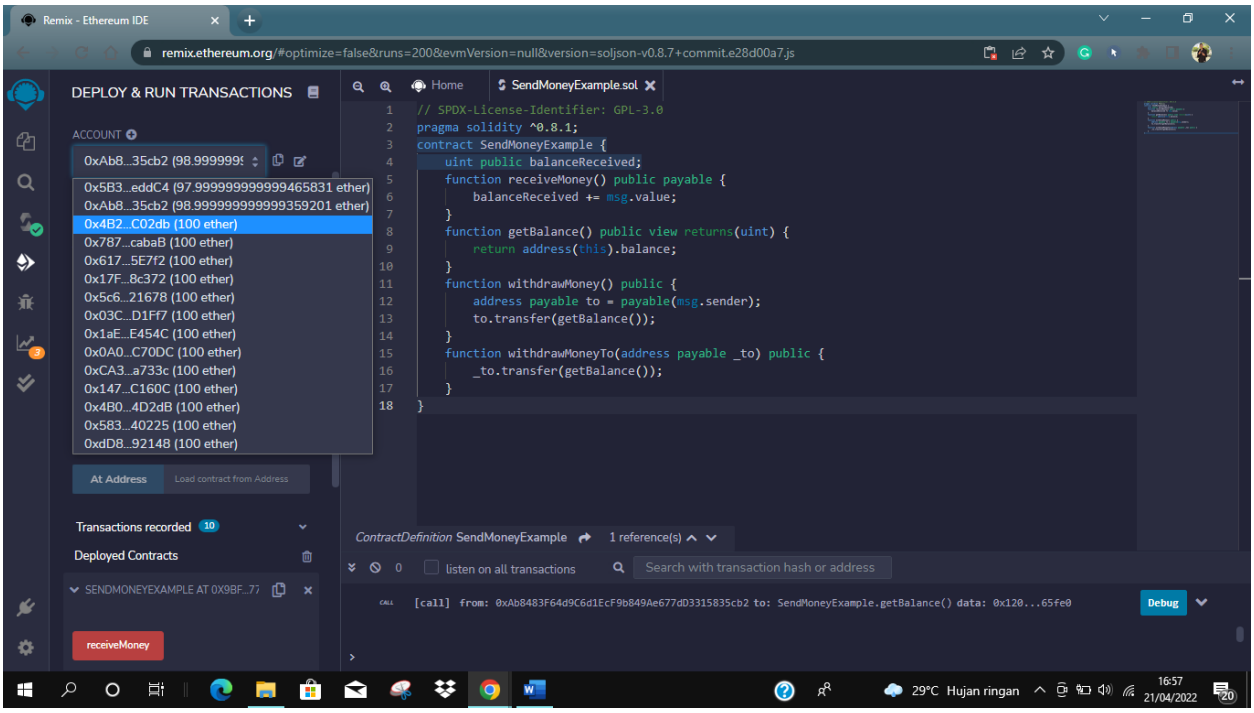
Previously we had our Smart Contract just blindly send the Ether to whoever called the Smart Contracts "withdrawMoney" function. Let's extend this a bit so that the Funds can be send to a specific Account.



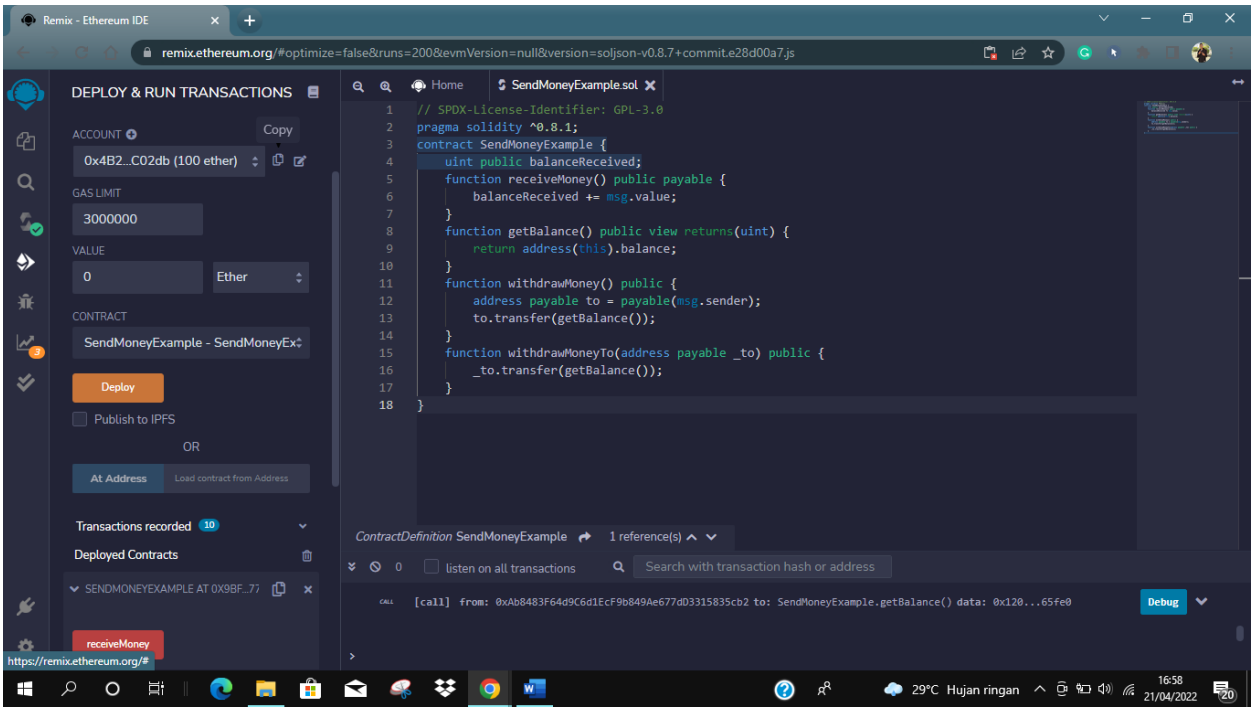
Deploy the Smart Contract. Close the old Instance. Send 1 Ether to the Smart Contract (don't forget the value input field!). Make sure the Balance shows up correctly.



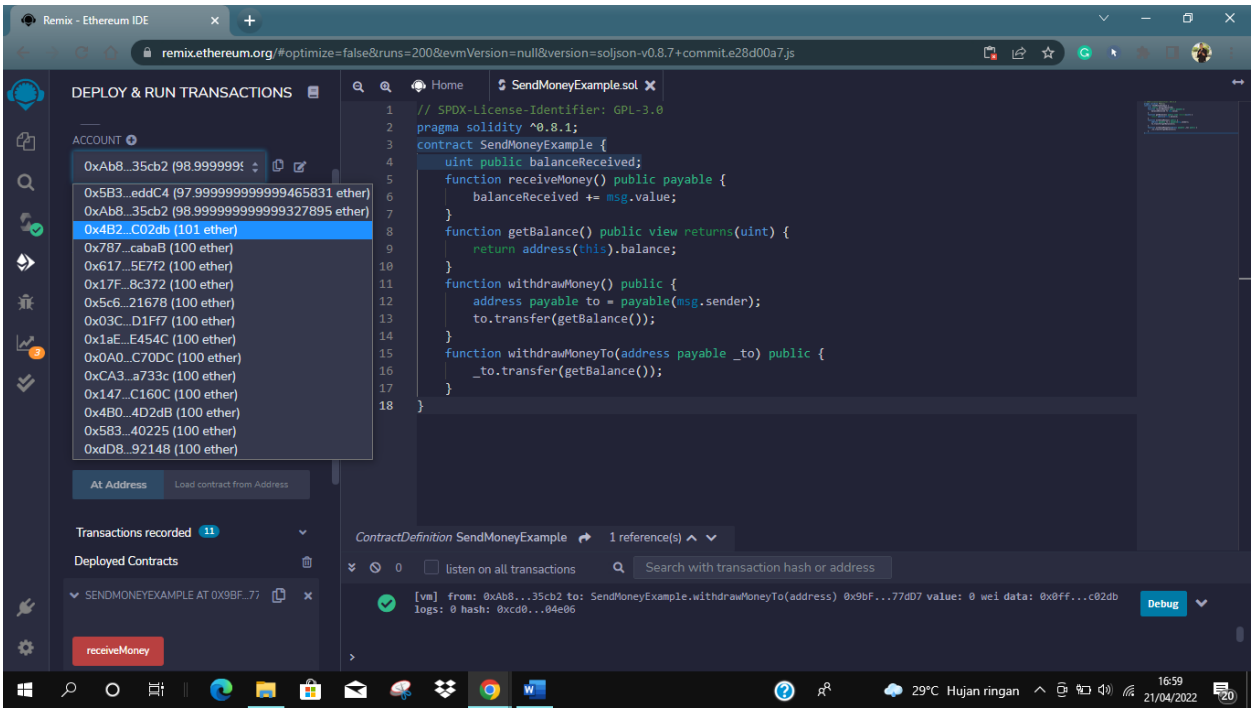
Select the third account from the dropdown



Hit the little "copy" icon:

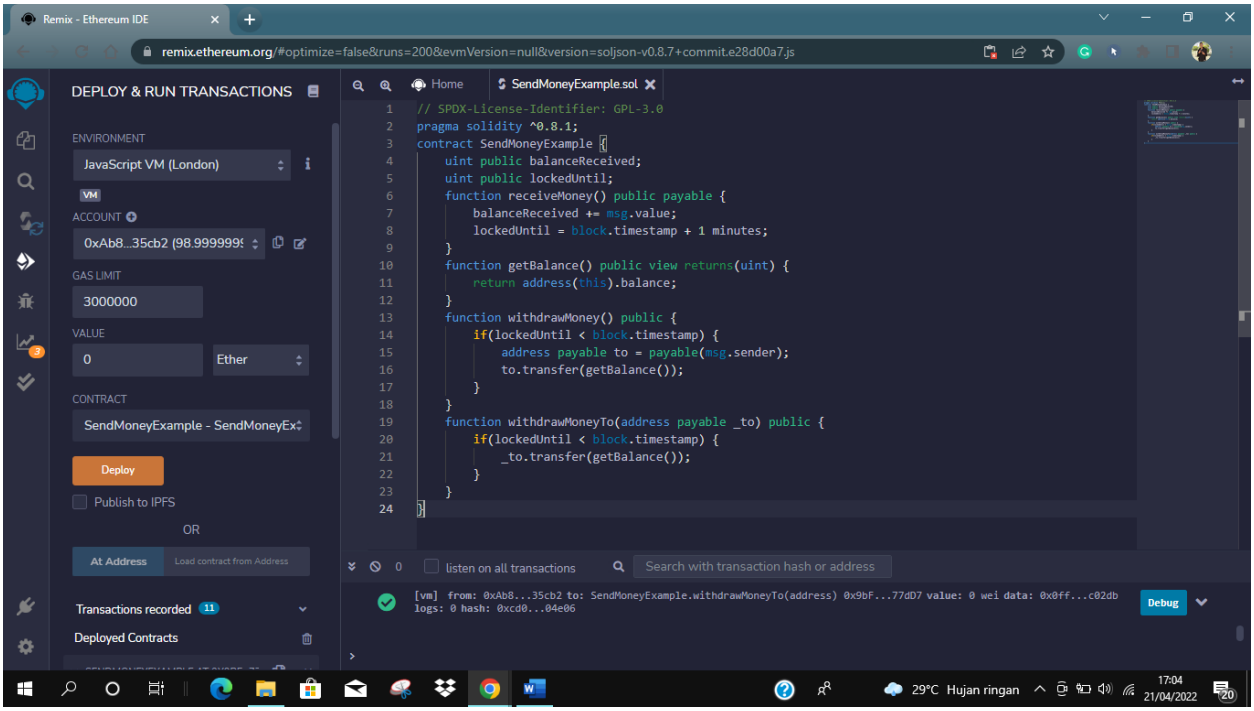


Switch back to the first Account. Paste the Account you copied into the input field next to "withdrawMoneyTo": Now open the Accounts dropdown. See the balance of your third Account? 101 Ether!!!

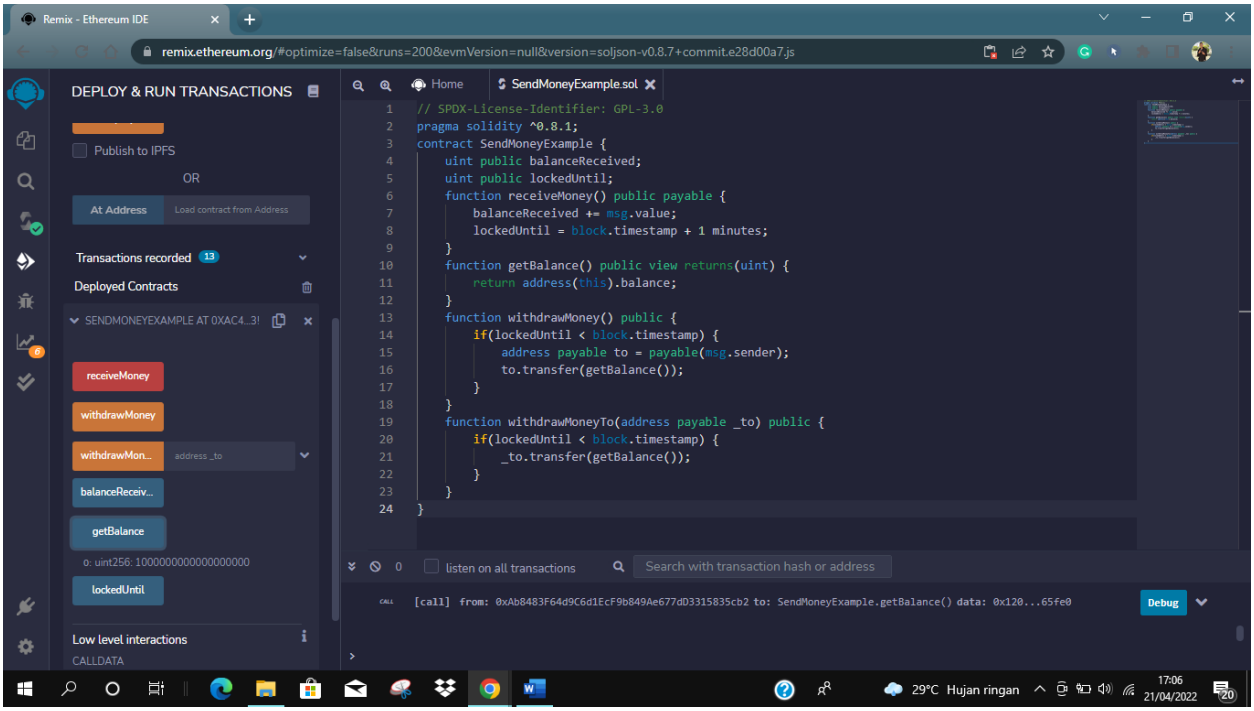


Withdrawal Locking

Let's extend our Smart Contract to do some locking. You will see that it is very easy to let our code take care of some specific logic to allow/disallow certain actions.



Deploy a new Instance version. Remove the old Instance. Send 1 Ether to the Smart Contract (don't forget the value field) by clicking on "receiveMoney". Check the Balance!



Click "withdrawMoney" - and nothing happens. The Balance stays the same until 1 Minute passed since you hit "receiveMoney".