# 438.https://stackoverflow.com/questions/71021003/duplicated-function-in-mint-contract-solidity

**T:**Duplicated function in mint contract / solidity

**Q:**i have differents parts of code to call a mint function.  
  
the parts are this  
  
2 modifiers  
  
modifier mintCompliance(uint256 \_mintAmount) { require(\_mintAmount > 0 && \_mintAmount <= maxMintAmountPerTx, "Invalid mint amount!"); require(supply.current() + \_mintAmount <= maxSupply, "Max supply exceeded!"); \_; } modifier mintCompliancePresale(uint256 \_mintAmount) { require(\_mintAmount > 0 && \_mintAmount <= maxMintAmountPerTx, "Invalid mint amount!"); require(supply.current() + \_mintAmount <= maxPresaleSupply, "Max supply exceeded!"); \_; }  
  
WARN: THIS PARAGRAPH CONTAINS TAG: [CODE]   
  
One is for normal mint, and the other one is for presale minting only.  
  
And that connects with my mint functions.  
  
function mint(uint256 \_mintAmount) public payable mintCompliance(\_mintAmount) { require(!paused, "The contract is paused!"); require(msg.value >= cost \* \_mintAmount, "Insufficient funds!"); if (msg.sender != owner()) { if(onlyWhitelisted == true) { require(isWhitelisted(msg.sender), "user is not whitelisted"); } require(msg.value >= cost \* \_mintAmount, "insufficient funds"); } \_mintLoop(msg.sender, \_mintAmount);} function presaleMint(uint256 \_mintAmount) public payable mintCompliancePresale(\_mintAmount) { require(!paused, "The contract is paused!"); require(msg.value >= cost \* \_mintAmount, "Insufficient funds!"); if (msg.sender != owner()) { if(onlyWhitelisted == true) { require(isWhitelisted(msg.sender), "user is not whitelisted"); } require(msg.value >= cost \* \_mintAmount, "insufficient funds"); } \_mintLoop(msg.sender, \_mintAmount);}   
  
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2 functions, one for normal mint and another one for presale minting.  
  
and that connects with my mint loop  
  
 function \_mintLoop(address \_receiver, uint256 \_mintAmount) internal { for (uint256 i = 0; i < \_mintAmount; i++) { supply.increment(); \_safeMint(\_receiver, supply.current()); } }  
  
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Now, my question is how can i improve the 2 modifiers and 2 mint functions in just 1 modifier and 1 minting function? Is it possible to do?  
  
I dont think 2 modifiers and 2 minting functions have sense. It works, but i think there is an error inside it.

1 **Answer**

**A1:**you can create bool presaleand make an if inside the modifier, the function will be unique since both function are the same:  
  
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modifier mintCompliance(uint256 \_mintAmount) { if(!presale){ require(\_mintAmount > 0 && \_mintAmount <= maxMintAmountPerTx, "Invalid mint amount!"); require(supply.current() + \_mintAmount <= maxSupply, "Max supply exceeded!"); \_; }else{ require(\_mintAmount > 0 && \_mintAmount <= maxMintAmountPerTx, "Invalid mint amount!"); require(supply.current() + \_mintAmount <= maxPresaleSupply, "Max supply exceeded!"); \_; } }  
  
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and function:  
  
function mint(uint256 \_mintAmount) public payable mintCompliance(\_mintAmount) { require(!paused, "The contract is paused!"); require(msg.value >= cost \* \_mintAmount, "Insufficient funds!"); if (msg.sender != owner()) { if(onlyWhitelisted == true) { require(isWhitelisted(msg.sender), "user is not whitelisted"); } require(msg.value >= cost \* \_mintAmount, "insufficient funds"); } \_mintLoop(msg.sender, \_mintAmount);}   
  
WARN: THIS PARAGRAPH CONTAINS TAG: [CODE]   
  
NOTEIf you're using Pausable.sol by openzeppelin you can do:  
  
function mint(uint256 \_mintAmount) public payable mintCompliance(\_mintAmount) whenNotPaused {}  
  
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and delete:  
  
require(!paused, "The contract is paused!");  
  
WARN: THIS PARAGRAPH CONTAINS TAG: [CODE]

**C1:**thats awesome. thank you so much. I have all my contract complete and ready to go, and i see you are a expert in this. Would you take a quick look and see if i have some error i didnt see or any bad thing in security? i know is too much to ask, but that would be very helpful for me

**C2:**certainly yes, if you need advice you can write me on telegram: @ jacko06v if the answer solved the problem, please mark it as "accepted"

**C3:**i already send you a msg, Jacopo