# 117.https://stackoverflow.com/questions/72812392/simple-way-to-concatenate-tokenid-to-tokenuri

**T:**Simple way to concatenate tokenID to tokenURI

**Q:**I am doing a project for my Honours year at the University of Cape Town using solidity and openzeppelin for my NFTs. I have uploaded a folder of json/png for the metadata. I need to now use the tokenID + .json to set the tokens correct uri when minting them. Below is the simple contract:  
  
 //SPDX-License-Identifier: MITpragma solidity ^0.8;import "@openzeppelin/contracts/token/ERC721/extensions/ERC721URIStorage.sol";import "@openzeppelin/contracts/utils/Strings.sol";contract ImpactCollection is ERC721URIStorage { uint256 public tokenCounter; constructor () ERC721 ("Impact Tokens", "COLLECTION\_TICKER"){ tokenCounter = 0; } function concatenate(string memory a,uint256 memory b,string memory c) public pure returns (string memory){ return string(abi.encodePacked(a,b,c)); } function createCollectible() public returns (uint256) { uint256 newItemId = tokenCounter; string urinumber = string(abi.encodePacked(newItemId.toString())) tokenURI = "https://ipfs.io/ipfs/QmQh54Rb8ZFY33P9bWUzgonRvA7XeChVWaAWG3nMqQ19xW/" + urinumber + ".json"; \_safeMint(msg.sender, newItemId); \_setTokenURI(newItemId, tokenURI); tokenCounter = tokenCounter + 1; return newItemId; }}  
  
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I have the folder url above and i just need to add the token id and then add a .json. My C# brain says: "ipfsurl" + newItemId.toString() + ".json";  
  
What is the remix (solidity) equivalent?

2 **Answer**

**A1:**From solidity version 0.8.12 you can use string.concat(s1,s2) for concatenate the strings.I adjusted and put some notes in your smart contract code:  
  
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//SPDX-License-Identifier: MITpragma solidity ^0.8;import "@openzeppelin/contracts/token/ERC721/extensions/ERC721URIStorage.sol";import "@openzeppelin/contracts/utils/Strings.sol";contract ImpactCollection is ERC721URIStorage { uint256 public tokenCounter; using Strings for \*; constructor () ERC721 ("Impact Tokens", "COLLECTION\_TICKER"){ tokenCounter = 0; } function concatenate(string memory a,uint256 b,string memory c) public pure returns (string memory){ return string(abi.encodePacked(a,b,c)); } function createCollectible() public returns (uint256) { uint256 newItemId = tokenCounter; // NOTE: Use Strings.toString for convert a uint to string datatype string memory urinumber = Strings.toString(newItemId); // NOTE: I declared a new variable for contain token URI string memory tokenURI = "https://ipfs.io/ipfs/QmQh54Rb8ZFY33P9bWUzgonRvA7XeChVWaAWG3nMqQ19xW/"; // NOTE: I declare a new variable for contain tokenURI concatenated string memory fullTokenURI = string.concat("https://ipfs.io/ipfs/QmQh54Rb8ZFY33P9bWUzgonRvA7XeChVWaAWG3nMqQ19xW/", urinumber, ".json"); \_safeMint(msg.sender, newItemId); \_setTokenURI(newItemId, tokenURI); tokenCounter = tokenCounter + 1; return newItemId; }}  
  
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**A2:**This will work!  
  
\_setTokenURI(newItemId, string(abi.encodePacked(\_uri, '/', newItemId.toString(), '.json')));  
  
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