Homework 2 Answers

Answers

1. Write a function that will delete items (one at a time) from a dynamic array without leaving gaps in the array. You should assume that the items to be deleted are chosen
at random, and try to do this in a gas efficient manner.
For example imagine your array has 12 items and you need to delete the items at indexes 8, 2 and 7.
The final array will then have items {0,1,3,4,5,6,9,10,11}

```solidity
// SPDX-License-Identifier: UNLICENSED
pragma solidity 0.8.17;

contract homework2 {
    uint8[] public array = [1,2,3,4,5,6];

    function remove(uint index) public{
        array[index] = array[array.length - 1];
        array.pop();
    }
}
```

NOTE:

If you call when array is empty you will get an overflow/underflow error. Since solidity 8 the compiler will handle this and revert so it is secure. But you could include a require for readability but it will cost gas.

```solidity
require(array.length > 0, "Array is Empty");
```