

Implement an ADT using an array data structure

Develop the following stack class. The class should use your `IntArrayList` class and should implement the appropriate ADT interface.

Class <code>MyStack</code> implements <code>StackADT</code>
<code>IntArrayList list</code>
<code>boolean isFull() //returns full if no more space</code> <code>void display () //Console UI for testing</code> <code>default constructor that sets maximum size of list to 20</code>

Remember, you will also need to implement the methods defined in the interface.

Test `MyStack` with the following driver

```
static void stackdriver()
{
    MyStack astack = new MyStack();
    System.out.println("testing Stack ");
    System.out.println("testing is empty " + astack.isEmpty() );
    for (int i = 1 ; i<6 ; i++)
        astack.push( i );

    System.out.println ( "num values in stack: " + astack.size() );
    astack.display();
    System.out.println("popping value" + astack.pop());
    System.out.println("value 5 should have been removed");
    astack.display( );
}
```

Expected output

```
testing Stack
testing is empty true
num values in stack: 5
list has 5 items
value: 5
value: 4
value: 3
value: 2
value: 1
popping value 5
value 5 should have been removed
list has 4 items
value: 4
value: 3
value: 2
value: 1
```