

CSC 212 Tutorial #1 Solution

Generics

Problem 1

The class Utils:

```
public class Utils {  
    public static <T> int search(T[] data, int n, T e) {  
        for (int i = 0; i < n; i++) {  
            if (e.equals(data[i]))  
                return i;  
        }  
        return -1;  
    }  
}
```

Problem 2

1. The class GenericArray:

```
public class GenericArray<T> {  
    private T[] arr;  
  
    public GenericArray(int n) {  
        arr = (T[]) new Object[n];  
    }  
  
    public T get(int i) {  
        return arr[i];  
    }  
  
    public void set(int i, T val) {  
        arr[i] = val;  
    }  
}
```

2. Results in compilation error. To solve this:

```
public class ArrayOfBox {  
    public static void main(String[] args) {  
        GenericArray<Box<String>> array = new GenericArray<Box<  
            String>>(3);  
        array.set(0, new Box<String>("A"));  
        array.get(0).update("B");  
    }  
}
```