

# Breaking the Caesar Cipher

## Summary



# Arrays: Indexed Collections

- `String[]`, `int[]`, `StorageResource[]` or
  - One variable represents ...many values
  - Indexed collection of elements





# Using Arrays in Java

- Create storage when program runs, the size of an array can't change, values in array cells can change

```
String[] names = new String[100];  
int[] counters = new int[2048];  
names[5] = "Zeus";  
counters[123] = counters[123] + 1;
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# Indexing Array Elements

- Typically use for-loops with indexes
  - Sometimes build methods to solve problems

```
public int indexOf(String[] list, String word) {  
    for(int k=0; k < list.length; k++){  
        if (list[k].equals(word)) {  
            return k;  
        }  
    }  
    return -1;  
}
```



# Cracking Codes

- You used arrays to crack a Caesar cipher
  - Counting frequencies, using indexing
  - Both encrypt and decrypt used indexing
- Internet encryption is more secure





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- You used arrays to crack a Caesar cipher
  - Counting frequencies, using indexing
  - Both encrypt and decrypt used indexing
- Internet encryption is more secure
  - Be careful!

