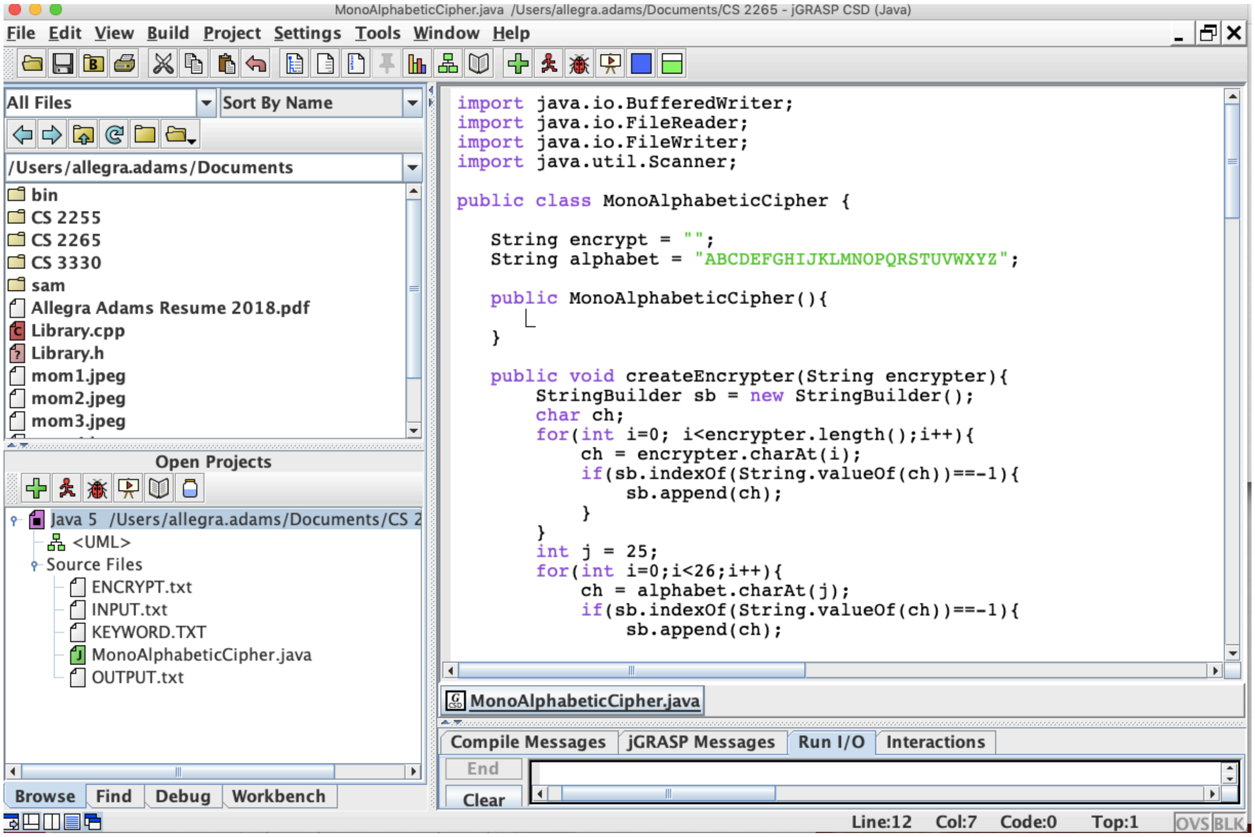
Allegra Adams
Java 5
11/29/18
CS 3330 XTIA


MonoAlphabeticCipher.java /Users/allegra.adams/Documents/CS 2265 - jGRASP CSD (Java)
File Edit View Build Project Settings Tools Window Help
All Files
Sort By Name
/Users/allegra.adams/Documents
bin
CS 2255
CS 2265
CS 3330
sam
Allegra Adams Resume 2018.pdf
Library.cpp
Library.h
mom1.jpeg
mom2.jpeg
mom3.jpeg
Open Projects
Java 5 /Users/allegra.adams/Documents/CS 2
<UML>
Source Files
ENCRYPT.txt
INPUT.txt
KEYWORD.TXT
MonoAlphabeticCipher.java
OUTPUT.txt
Browse
Find
Debug
Workbench
MonoAlphabeticCipher.java
Compile Messages
jGRASP Messages
Run I/O
Interactions
End
Clear
Line:12
Col:7
Code:0
Top:1
OVS
BLK

```
import java.io.BufferedWriter;
import java.io.FileReader;
import java.io.FileWriter;
import java.util.Scanner;

public class MonoAlphabeticCipher {

   String encrypt = "";
   String alphabet = "ABCDEFGHIJKLMNOPQRSTUVWXYZ";

   public MonoAlphabeticCipher(){

   }

   public void createEncrypter(String encrypter){
       StringBuilder sb = new StringBuilder();
       char ch;
       for(int i=0; i<encrypter.length();i++){
           ch = encrypter.charAt(i);
           if(sb.indexOf(String.valueOf(ch))==-1){
               sb.append(ch);
           }
       }
       int j = 25;
       for(int i=0;i<26;i++){
           ch = alphabet.charAt(j);
           if(sb.indexOf(String.valueOf(ch))==-1){
               sb.append(ch);
```

```
import java.io.BufferedWriter;
import java.io.FileReader;
import java.io.FileWriter;
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public class MonoAlphabeticCipher {

   String encrypt = "";
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       StringBuilder sb = new StringBuilder();
       char ch;
       for(int i=0; i<encrypter.length();i++){
           ch = encrypter.charAt(i);
           if(sb.indexOf(String.valueOf(ch))==-1){
               sb.append(ch);
           }
       }
       int j = 25;
       for(int i=0;i<26;i++){
           ch = alphabet.charAt(j);
           if(sb.indexOf(String.valueOf(ch))==-1){
               sb.append(ch);
           }
           j--;
       }
       encrypt = sb.toString();
       System.out.println("Encrypter "+sb.toString());
   }

   public String encrypt(String plainText){
       StringBuilder cipher = new StringBuilder();
       char ch;
       for(int i=0; i<plainText.length();i++){
           ch = plainText.charAt(i);
           if(ch==' '){
               cipher.append(' ');
           }else

cipher.append(encrypt.charAt(alphabet.indexOf(ch)));
       }
       return cipher.toString();
   }

   public String decrypt(String cipherText){
       StringBuilder decryptedText = new StringBuilder();
       char ch;
       for(int i=0; i<cipherText.length();i++){
           ch = cipherText.charAt(i);
           if(ch==' '){
               decryptedText.append(' ');
```

```
           }else
                
decryptedText.append(alphabet.charAt(encrypt.indexOf(ch)));
       }
       return decryptedText.toString();
   }
   
   public String readFromFile(String fileName){
       try
       {
       Scanner reader = new Scanner(new FileReader(fileName));
       String line = reader.nextLine();
       reader.close();
       return line;
       }
       catch (Exception e)
       {
       System.err.format("Exception occurred trying to read 
'%s'.", fileName);
       e.printStackTrace();
       return null;
       }
   }
   
   public void writeToFile(String fileName, String line){
       try
       {
       BufferedWriter writer = new BufferedWriter(new 
FileWriter(fileName));
       writer.write(line);
       writer.close();
       }
       catch (Exception e)
       {
       System.err.format("Exception occurred trying to read 
'%s'.", fileName);
       e.printStackTrace();
       }
   }

   public static void main(String[] args) {
       MonoAlphabeticCipher myApp = new MonoAlphabeticCipher();
       myApp.createEncrypter(myApp.readFromFile("keyword.txt"));
       String plainText = myApp.readFromFile("input.txt");
```

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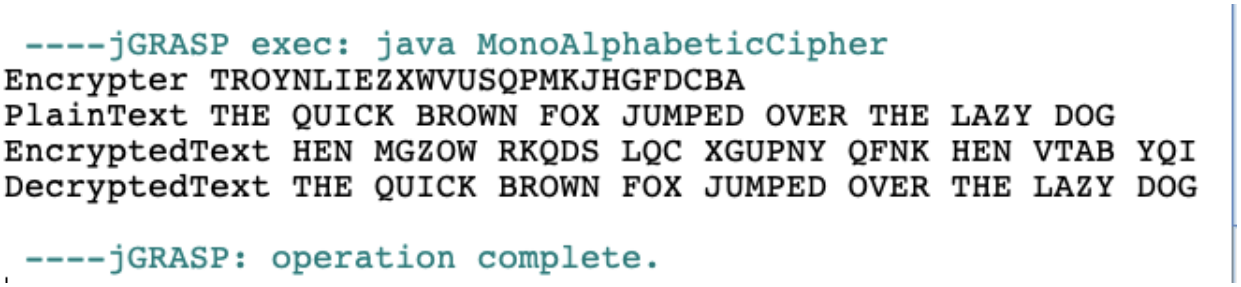
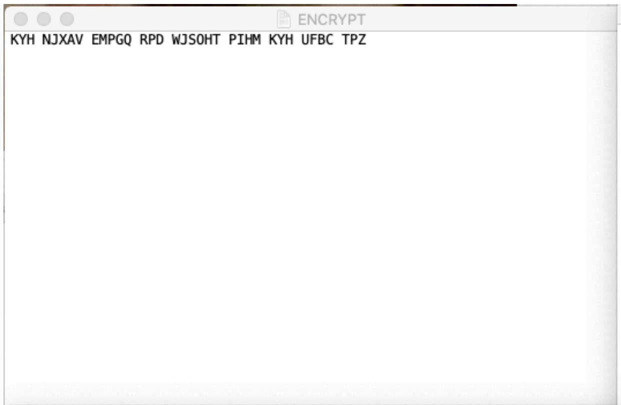
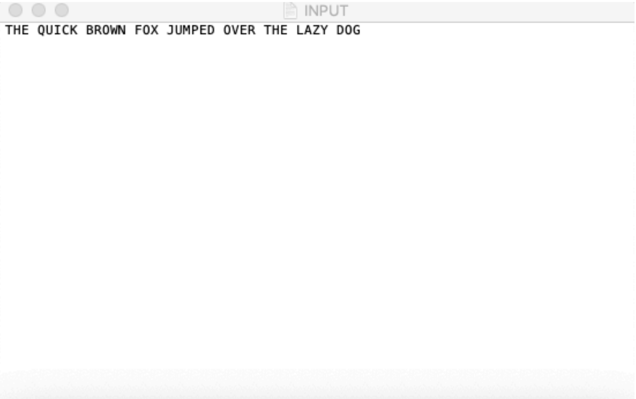
```
            String encryptedText = myApp.encrypt(plainText);
            String decryptedText = myApp.decrypt(encryptedText);
            myApp.writeToFile("encrypt.txt", encryptedText);
            myApp.writeToFile("output.txt", decryptedText);
            System.out.println("PlainText "+plainText);
            System.out.println("EncryptedText "+encryptedText);
            System.out.println("DecryptedText "+decryptedText);
        }

    }
```



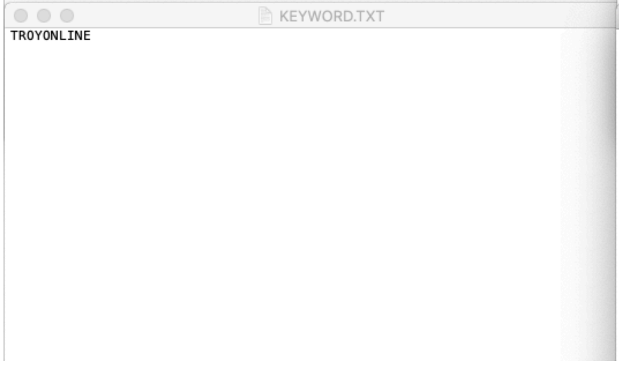
```
 ----jGRASP exec: java MonoAlphabeticCipher
Encrypter TROYNLIEZXWVUSQPMKJHGFDCBA
PlainText THE QUICK BROWN FOX JUMPED OVER THE LAZY DOG
EncryptedText HEN MGZOW RKQDS LQC XGUPNY QFNK HEN VTAB YQI
DecryptedText THE QUICK BROWN FOX JUMPED OVER THE LAZY DOG

 ----jGRASP: operation complete.
```



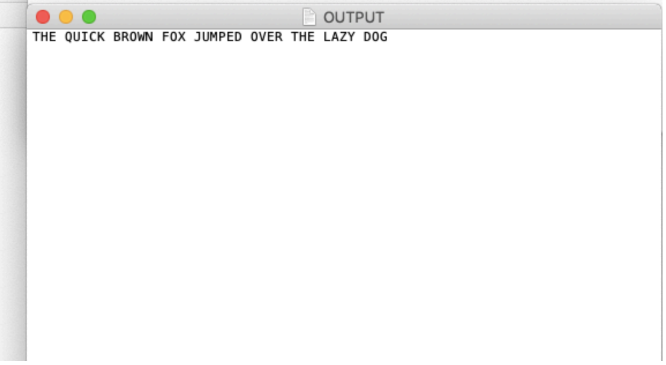
```
KYH NJXAV EMPGQ RPD WJSOHT PIHM KYH UFBC TPZ
```



```
THE QUICK BROWN FOX JUMPED OVER THE LAZY DOG
```



```
TROYONLINE
```



```
THE QUICK BROWN FOX JUMPED OVER THE LAZY DOG
```