# CMSC203 Java Assignments / Projects (example of the project submission)

## **Part1: Documentation Example**

Class: CMSC203 CRN 21456 Program: Assignment # 3 Instructor: Dr. Ahmed Tarek

Summary of Description: This is a project used to encrypt and decrypt messages. You

interface with this project using a GUI.

Due Date: 10/11/2021

Integrity Pledge: I pledge that I have completed the programming assignment independently.

I have not copied the code from a student or any source.

#### **Pseudo Code:**

**String in Bounds (Static Boolean Method)** 

Receives string
Loops through string's characters

Compares characters to the range of upper and lower bounds If character is in bounds return true

else return false End Loop

#### **Encrypt Caesar (Static string method )**

String in Bounds (String Text); Loop through string

Get each character value Add the number 1
Get new character values

**End Loop Return String** 

### **Decrypt Caesar (Static string method)**

String in Bounds (String Text); Loop through string

Get each character value

Get decrypted character values End Loop

**Return String** 

### **Encrypt Bellaso (Static String Method)**

String in Bounds (String Text); Loop through string

Get each character value Replace with ASCII value Get encrypted string

End Loop Return String

## **Decrypt Bellaso (Static String Method)**

String in Bounds (String Text); Loop through string

Get each ASCII value Replace with character value Get decrypted string

End Loop Return String

# **Comprehensive Test Plan**

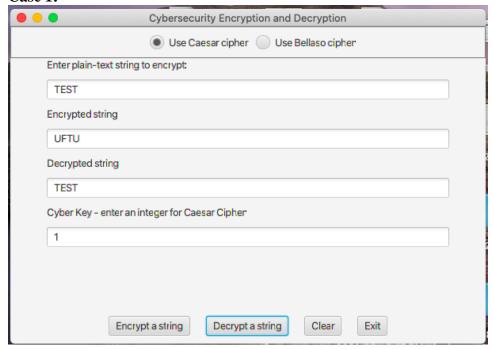
A good test plan should be comprehensive. This means you should have a few test cases that test when the input is in and out of range, division by 0, incorrect Data type, etc.(Provide valid and invalid input)

Input text	Input Key	Encrypted Caesar Method	Encrypted Bellaso	Decrypt Caesar	Decrypt Bellaso
Test	1	UFTU		TEST	
TESTBE ST	SUM		'Z 'WR&)		TESTBEST
TESTIN G ANOTH ER STRING	999	;;:;05.G(56;/,9 G:;905.		No Return	

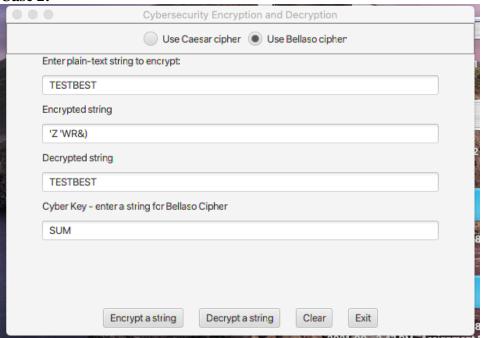
1234	BE		3759		
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# Screenshots for each case listed in the Test Plan

# Case 1:



# **Case 2:**



Case 3:

Cybersecurity Encryption and Decryption
Use Caesar cipher
Enter plain-text string to encrypt:
TESTING ANOTHER STRING
Encrypted string
;;:;05.G(56;/,9G:;905.
Decrypted string
Cyber Key - enter an integer for Caesar Cipher
999
Encrypt a string Decrypt a string Clear Exit

# **Case 4:**



# **Lessons Learned:**

Write about your Learning Experience, highlighting your lessons learned and learning experience from working on this project.

What have you learned?

I've learned a lot about flexibility in programming. I used while loops inside of for loops for two of the methods. I learned how flags can save you a lot of tie when programming.

What did you struggle with?

I struggled with the unit tests. The decrypt caesar didn't pass and I still don't know why. What would you do differently on your next project?

# I'd probably start earlier.

What parts of this assignment were you successful with, and what parts (if any) were you not successful with?

I was able to get the GUI up, encrypt and decrypt bellaso/caesar texts, and I was able to get 4 out of 5 tests to pass.

Provide any additional resources/links/videos you used to while working on this assignment/project.

<Provide answers to the questions listed above>

### **Check List:**

#		Y/N	Comments
1.	Assignment files:		
	FirstInitialLastName_ Assignment#_Moss.zip	Yes or No	
	<ul> <li>FirstInitialLastName_Assignment#.docx/.pdf</li> </ul>	Yes or No	
	Source java files	Yes or No	
2.	Program compiles	Yes or No	
3.	Program runs with desired outputs related to a	Yes or No	
	Test Plan		
4.	Documentation file:		
	<ul> <li>Comprehensive Test Plan</li> </ul>	Yes or No	
	<ul> <li>Screenshots for each Test case listed in the</li> </ul>	Yes or No	
	Test Plan		
	<ul> <li>Screenshots of your GitHub account with</li> </ul>	Yes or No or N/A	
	submitted Assignment# (if required)		
	UML Diagram (if required)	Yes or No or N/A	
	Algorithms/Pseudocode (if required)	Yes or No or N/A	
	Flowchart (if required)	Yes or No or N/A	
	Lessons Learned	Yes or No	
	Checklist is completed and included in the	Yes or No	
	Documentation		