

## **Information Assurance and Security (IT352) Lab Program-4**

### **For Reg. No 181560181IT245, 191300191IT101-191023191IT129**

Use any one of the programming languages such as C/C++/Java/Python to implement **Shift Cipher (Caesar Cipher)**. Your program should consider only the run-time inputs such as “Plaintext” and shift value “K”. If input consists of any non-alphabet character, then your program should display an error message on the terminal and also store the same error message on the output file. If given input is correct input, then your program should encrypt the given input. Write separate user defined functions to achieve Encryption and Decryption operations. After encryption operation, display Plaintext, Ciphertext and Key value on to the terminal and also store the same onto the output file. Consider the generated Ciphertext to show the demonstration of the decryption operation. After decryption operation, display Ciphertext, Plaintext and Key value on the terminal and also store the same on output file.

#### **Sample Text Cases**

1. Plain Text : today we will eat mango  
Shift Value : K=3
2. Plain Text : surathkal-575025  
Shift Value : K=5

File name of the program : RegisterNo\_IT352\_P4  
(P4 indicates Lab Program Number-4)

File name of the screenshot : RegisterNo\_IT352\_P4\_TCS1

(TCS1 indicates screenshot for the first test case, similarly, for other test cases TCS2, TCS3, TCS4, TC5, TC6)

File name of the Output File : RegisterNo\_IT352\_P4\_Output\_TC1.txt

(TC1 indicates output for the first test case, similarly, for other test cases TC2, TC3, TC4, TC5, TC6)

Date of Online Laboratory : 23<sup>rd</sup> February 2022, Wednesday

Deadline of Submission : 26<sup>th</sup> February 2022, Saturday on or before 6:00PM

Submit program file, all six screenshots and all six output files (output.txt) to the Moodle under the web-link title “*IT352-Lab-Program-4-Submisison Web Link*”.

**Note :** No/Zero marks for incomplete submission/late submission/incomplete program.  
No email submission is considered for evaluation.

## **Information Assurance and Security (IT352) Lab Program-4**

### **For Reg. No 191IT130 - 191IT201**

Use any one of the programming languages such as C/C++/Java/Python to implement **Vigenère Cipher**. Your program should consider only the run-time inputs such as “Plaintext” and Key stream. If input consist of any non-alphabet character, then your program should display an error message on the terminal and also store the same error message on the output file. If given input is correct input, then your program should encrypt the given input. Write separate user defined functions to achieve Encryption and Decryption operations. After encryption operation, display Plaintext, Ciphertext and Key stream on the terminal and also store the same onto the output file. Consider the generated Ciphertext to show the demonstration the decryption operation. After decryption operation, display Ciphertext, Plaintext and Key stream on the terminal and also store the same on output file.

#### **Sample Text Cases**

Plain Text	:	nitk surathkal mangalore
Key Stream	:	bangalore

Plain Text	:	Surathkal-575025
Key Stream	:	mangalore

File name of the program	:	RegisterNo_IT352_P4
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(P4 indicates Lab Program Number-4)

File name of the screenshot	:	RegisterNo_IT352_P4_TCS1
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(TCS1 indicates screenshot for the first test case, similarly, for other test cases TCS2, TCS3, TCS4, TC5, TC6)

File name of the Output File	:	RegisterNo_IT352_P4_Output_TC1.txt
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(TC1 indicates output for the first test case, similarly, for other test cases TC2, TC3, TC4, TC5, TC6)

Date of Online Laboratory	:	23 <sup>rd</sup> February 2022, Wednesday
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## **Information Assurance and Security (IT352) Lab Program-4**

### **For Reg. No 191IT202 - 191IT231**

Use any one of the programming languages such as C/C++/Java/Python to implement **Rail Fence Technique**. Your program should consider only the run-time inputs such as “plaintext”. If input consist of any non-alphabet character, then your program should display an error message on the terminal and also store the same error message on the output file. If given input is correct input, then your program should encrypt the given input. Write separate user defined functions to achieve Encryption and Decryption operations. After encryption operation, display both Plaintext and output Ciphertext onto the terminal and also store the same onto the output file. Consider the generated Ciphertext to show the demonstration the decryption operation. After decryption operation, display both Ciphertext and Plaintext on the terminal and also store the same on output file.

#### **Sample Text Cases**

Plain Text : nitk surathkal mangalore

Plain Text : Surathkal-575025

File name of the program : RegisterNo\_IT352\_P4  
(P4 indicates Lab Program Number-4)

File name of the screenshot : RegisterNo\_IT352\_P4\_TCS1

(TCS1 indicates screenshot for the first test case, similarly, for other test cases TCS2, TCS3, TCS4, TC5, TC6)

File name of the Output File : RegisterNo\_IT352\_P4\_Output\_TC1.txt

(TC1 indicates output for the first test case, similarly, for other test cases TC2, TC3, TC4, TC5, TC6)

Date of Online Laboratory : 23<sup>rd</sup> February 2022, Wednesday

Deadline of Submission : 26<sup>th</sup> February 2022, Saturday on or before 6:00PM

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## **Information Assurance and Security (IT352) Lab Program-4**

### **For Reg. No 191IT232 - 191IT258**

Use any one of the programming languages such as C/C++/Java/Python to implement Autokey Cipher. Your program should consider only the run-time inputs such as “plaintext”, Key value should be generated automatically during runtime. If input consist of any non-alphabet character, then your program should display an error message on the terminal and also store the same error message on the output file. If given input is correct input, then your program should encrypt the given input. Write separate user defined functions to achieve Encryption and Decryption operations. After encryption operation, display Plaintext, Ciphertext and Key value onto the terminal and also store the same onto the output file. Consider the generated Ciphertext to show the demonstration the decryption operation. After decryption operation, display Ciphertext, Plaintext and Key value on the terminal and also store the same on output file.

#### **Sample Text Cases**

Plain Text : nitk surathkal mangalore

Plain Text : Surathkal-575025

File name of the program : RegisterNo\_IT352\_P4  
(P4 indicates Lab Program Number-4)

File name of the screenshot : RegisterNo\_IT352\_P4\_TCS1

(TCS1 indicates screenshot for the first test case, similarly, for other test cases TCS2, TCS3, TCS4, TC5, TC6)

File name of the Output File : RegisterNo\_IT352\_P4\_Output\_TC1.txt

(TC1 indicates output for the first test case, similarly, for other test cases TC2, TC3, TC4, TC5, TC6)

Date of Online Laboratory : 23<sup>rd</sup> February 2022, Wednesday

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