

Security Simulink

By

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With my teacher

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What is the Security Simulink?

- The **security Simulink** is program to show how the Some Security Encryption Algorithm work . By some animation and Graphic design by using the C# language and the .NET Framework .
- **Algorithms :**
 - CAESAR CIPHER
 - MONOALPHABETIC CIPHERS
 - VIGENERE CIPHER
 - PLAYFAIR CIPHER



Program interface..

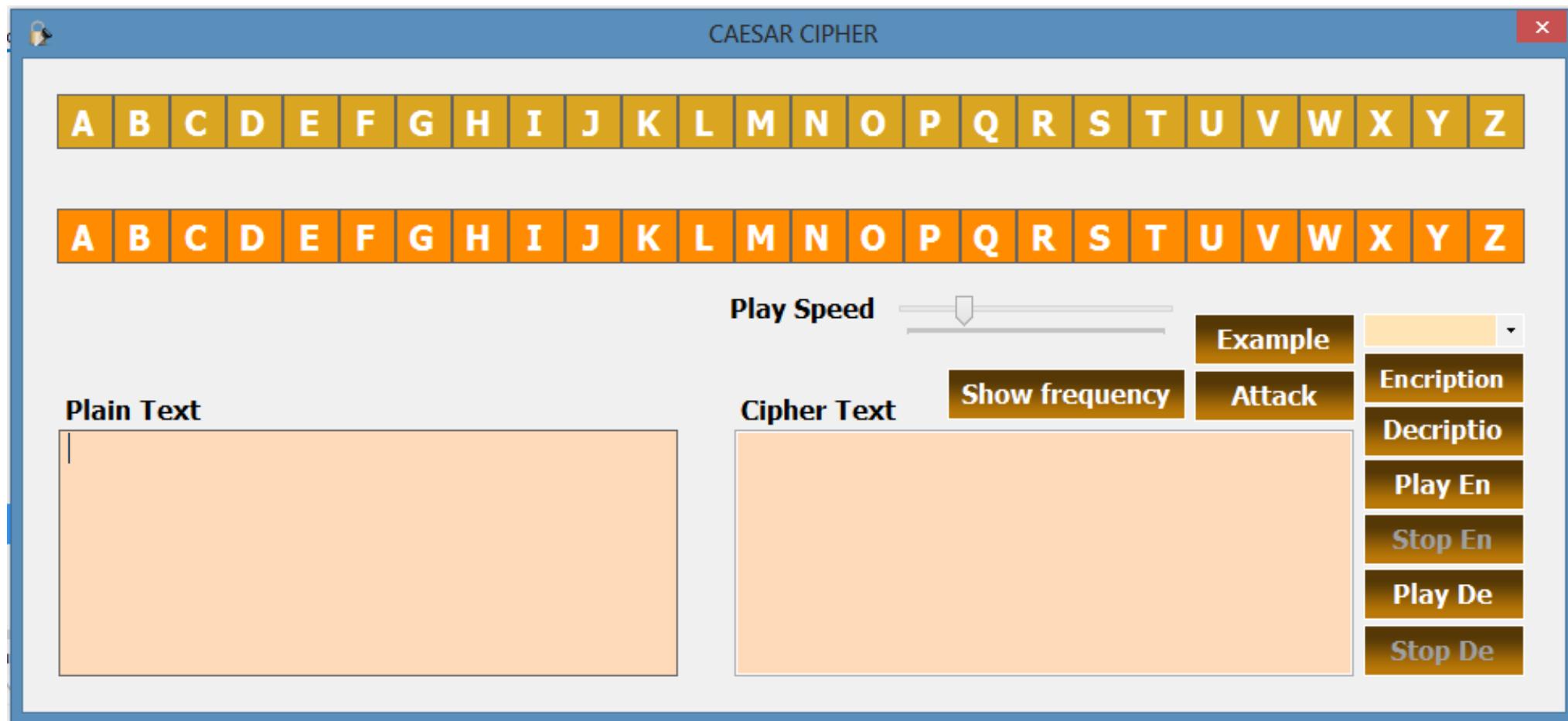


What in the CAESAR CIPHER ..

- In the CAESAR CIPHER interface we have the sequence of English litter Sort from A-Z to , is a plain litters.
- In the bellow of the plain litters , we have another sequence of English litter but sorted by the key. Is a cipher litters.
- In the bottom of the program we have the two **textbox** .
 - For the plain text you can enter your message then select key and click to encryption to encrypt the text , or you can click to the play En to show the animation , for you know how Caesar work for encryption.
 - For the Cipher text you can enter your Cipher message then select key and click to decryption to decrypt the text , or you can click to the play De to show the animation , for you know how Caesar work for decryption.



CAESAR CIPHER INTERFACE.

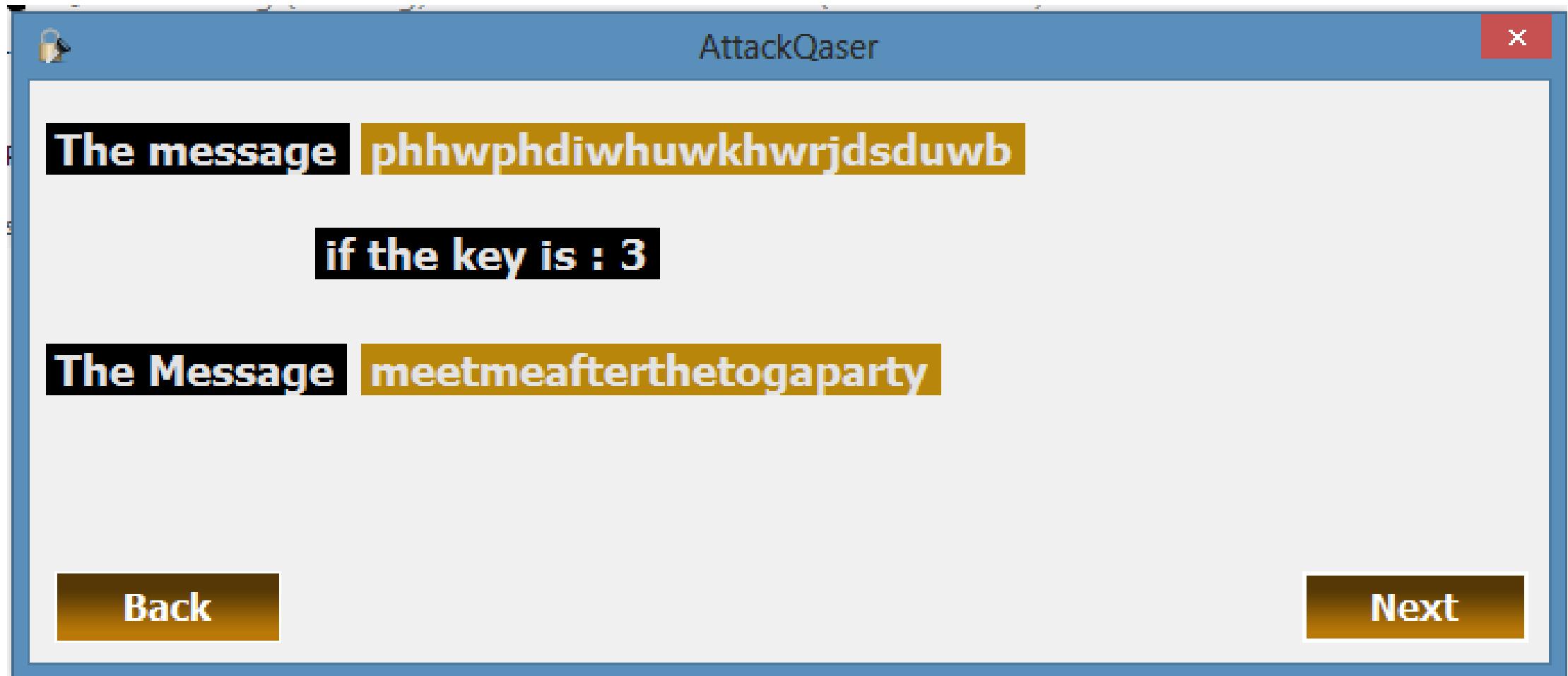


Continue..

- In the bottom of the cipher litters we have Track Bar for control the speed of the animation .
- Then we have button for the **Example** if you clicked it , the program get Random Example .
- Then we have button for **Attack** if you clicked it the program show for you new form and send your cipher message to it , the show you the message and **Next** and **Back** buttons , to try the all key utile show the right message .



Attack Form...



Continue..

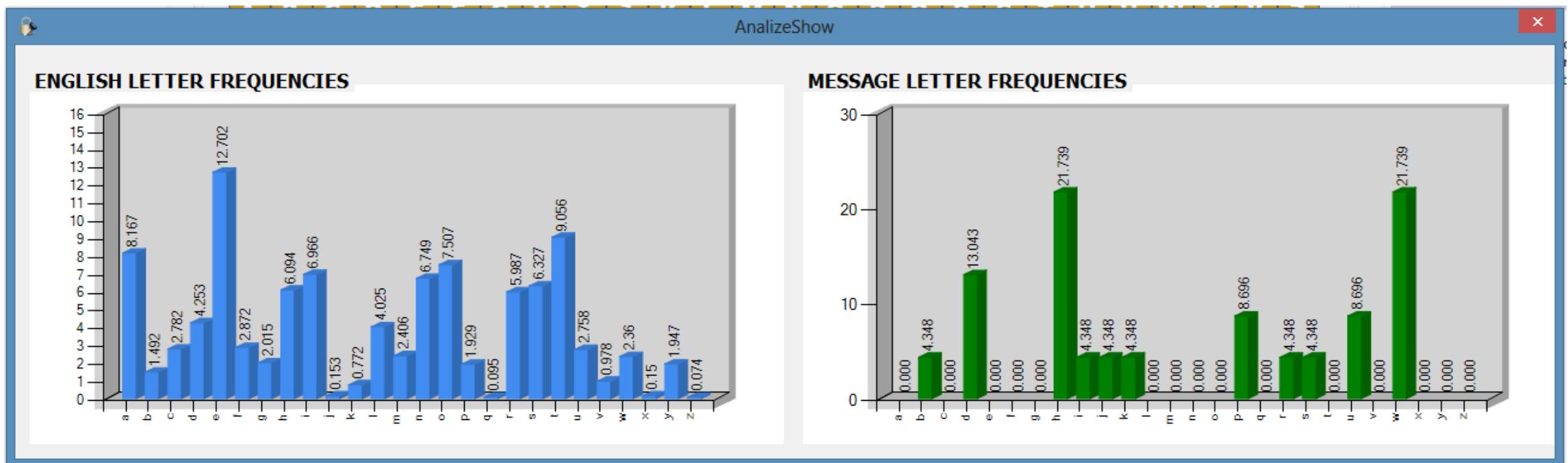
- The we have the button show Frequency , to show what the frequency of the letters in the Cipher Text , and show the Chart Graph of the Frequency of the cipher letters and the frequency of the English letters .

NOTE:

All Algorithm have a show Frequency button



Show frequency form..

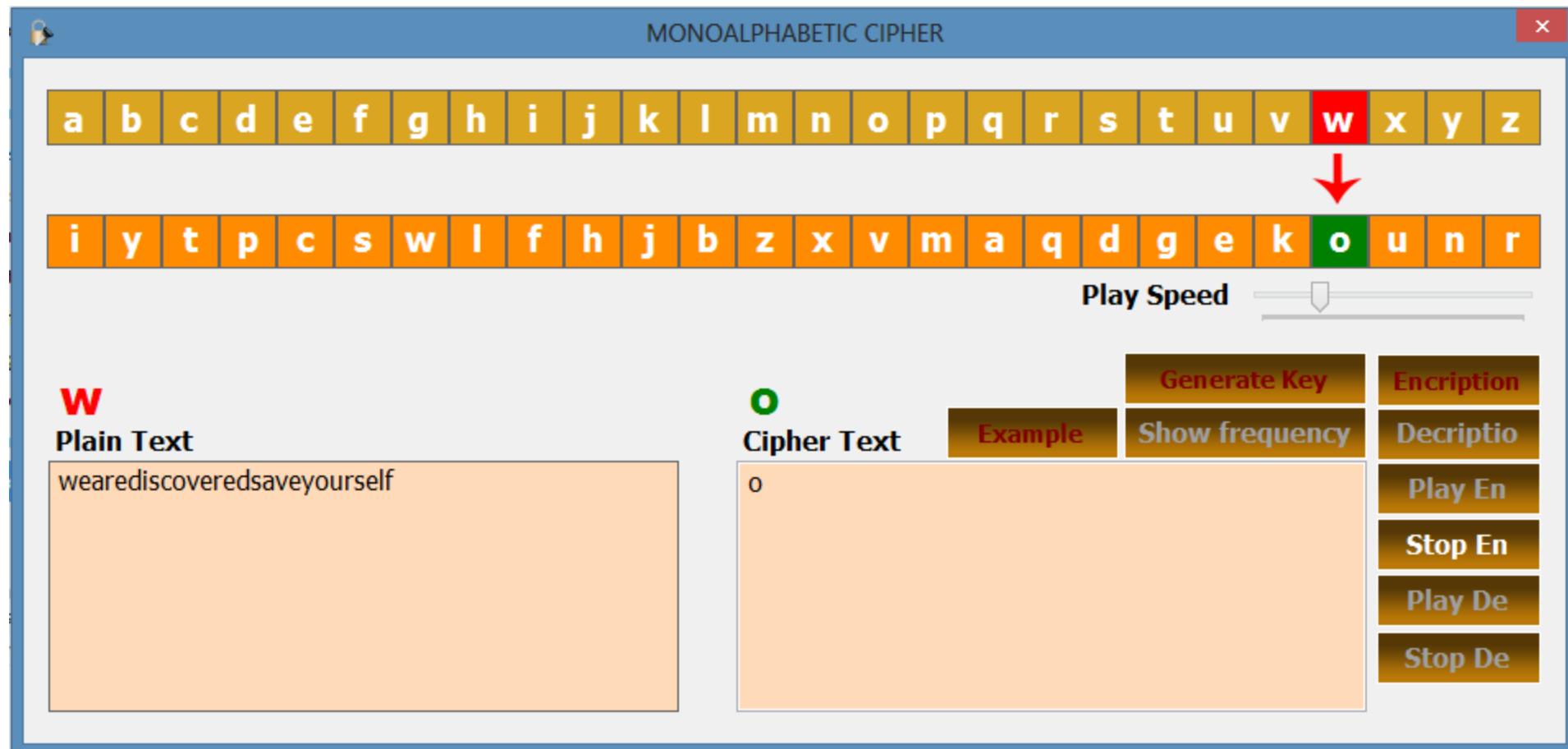


MONOALPHABETIC CIPHER

- In the MONOALPHABETIC CIPHER interface we have the sequence of English litter Sort from A-Z to , is a plain litters.
- In the bellow of the plain litters , we have another sequence of English litter but is random no sorted. Is a cipher litters.
- In the bottom of the program we have the two **textbox** .
 - For the plain text you can enter your message then select key and click to encryption to encrypt the text , or you can click to the play En to show the animation , for you know how MONOALPHABETIC work for encryption.
 - For the Cipher text you can enter your Cipher message then select key and click to decryption to decrypt the text , or you can click to the play De to show the animation , for you know how MONOALPHABETIC work for decryption.



MONOALPHABETIC CIPHER INTERFACE.



Continue..

- In the bottom of the cipher litters we have Track Bar for control the speed of the animation .
- Then we have button for the **Example** if you clicked it , the program get Random Example .
- Then we have button for generate the random key .and insert into the cipher letter .



VIGENERE CIPHER.

- In the VIGENERE CIPHER interface we have the table of English litter.
- In the left of the program we have the three **textbox** .
 - For the plain text you can enter your message then select key and click to encryption to encrypt the text , or you can click to the play En to show the animation , for you know how VIGENERE work for encryption.
 - For the Key text , you can enter your key .
 - For the Cipher text you can enter your Cipher message then select key and click to decryption to decrypt the text , or you can click to the play De to show the animation , for you know how VIGENERE work for decryption.



VIGENERE CIPHER INTERFACE.

VIGENERE CIPHER

The interface features a 26x26 grid of letters (a-z) repeated twice. A vertical red arrow points from the 'Plain Text' field to the grid. A horizontal green arrow points from the 'Cipher Text' field back to the grid. The menu bar includes 'Show frequency', 'Example', 'Encryption', 'Decryption', 'Play En', 'Stop En', 'Play De', and 'Stop De'. The 'Plain Text' field contains 'universityofzakho'. The 'Key' field contains 'security'. The 'Cipher Text' field contains 'mrkpvz'. A 'Play Speed' slider is at the bottom.

Plain Text
universityofzakho

Key
security

Cipher Text
mrkpvz

Show frequency

Example

Encryption

Decryption

Play En

Stop En

Play De

Stop De

Play Speed



Continue..

- In the bottom of the cipher text we have Track Bar for control the speed of the animation .
- Then we have button for the **Example** if you clicked it , the program get Random Example .

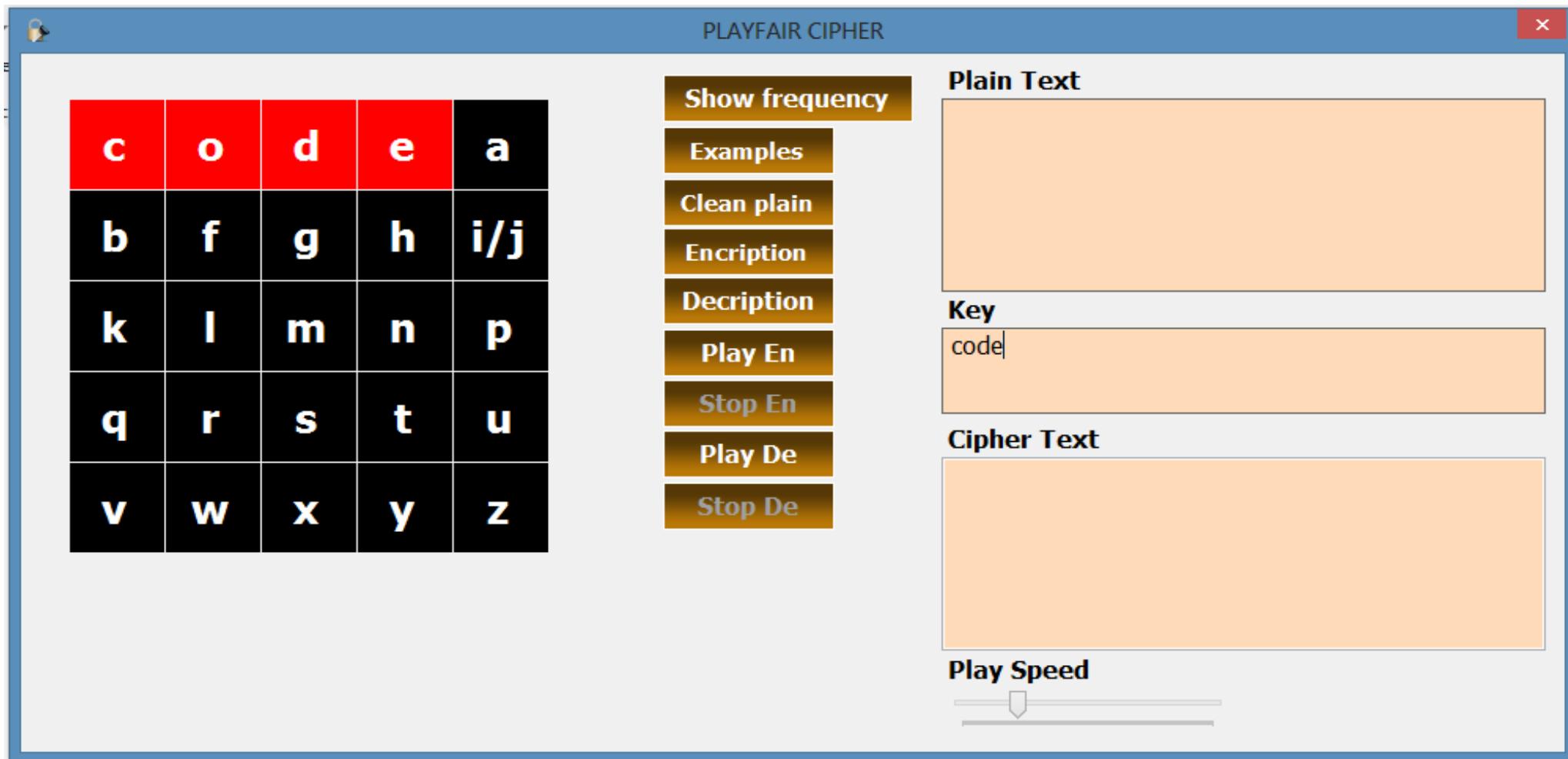


PLAYFAIR CIPHER.

- In the PLAYFAIR CIPHER interface we have the table of English litter.
- In the left of the program we have the three textbox .
 - For the plain text you can enter your message then select key and click to encryption to encrypt the text , or you can click to the play En to show the animation , for you know how PLAYFAIR work for encryption.
 - For the Key text , you can enter your key .
 - For the Cipher text you can enter your Cipher message then select key and click to decryption to decrypt the text , or you can click to the play De to show the animation , for you know how PLAYFAIR work for decryption.



PLAYFAIR CIPHER INTERFACE.



PLAYFAIR CIPHER INTERFACE. (Cont..)

PLAYFAIR CIPHER

Plain Text
universityofzakhox

Key
security

Cipher Text
co

Show frequency

Examples

Clean plain

Encription

Decription

Play En

Stop En

Play De

Stop De

Play Speed



Continue..

- In the bottom of the cipher text we have Track Bar for control the speed of the animation .
- Then we have button for the **Example** if you clicked it , the program get Random Example .

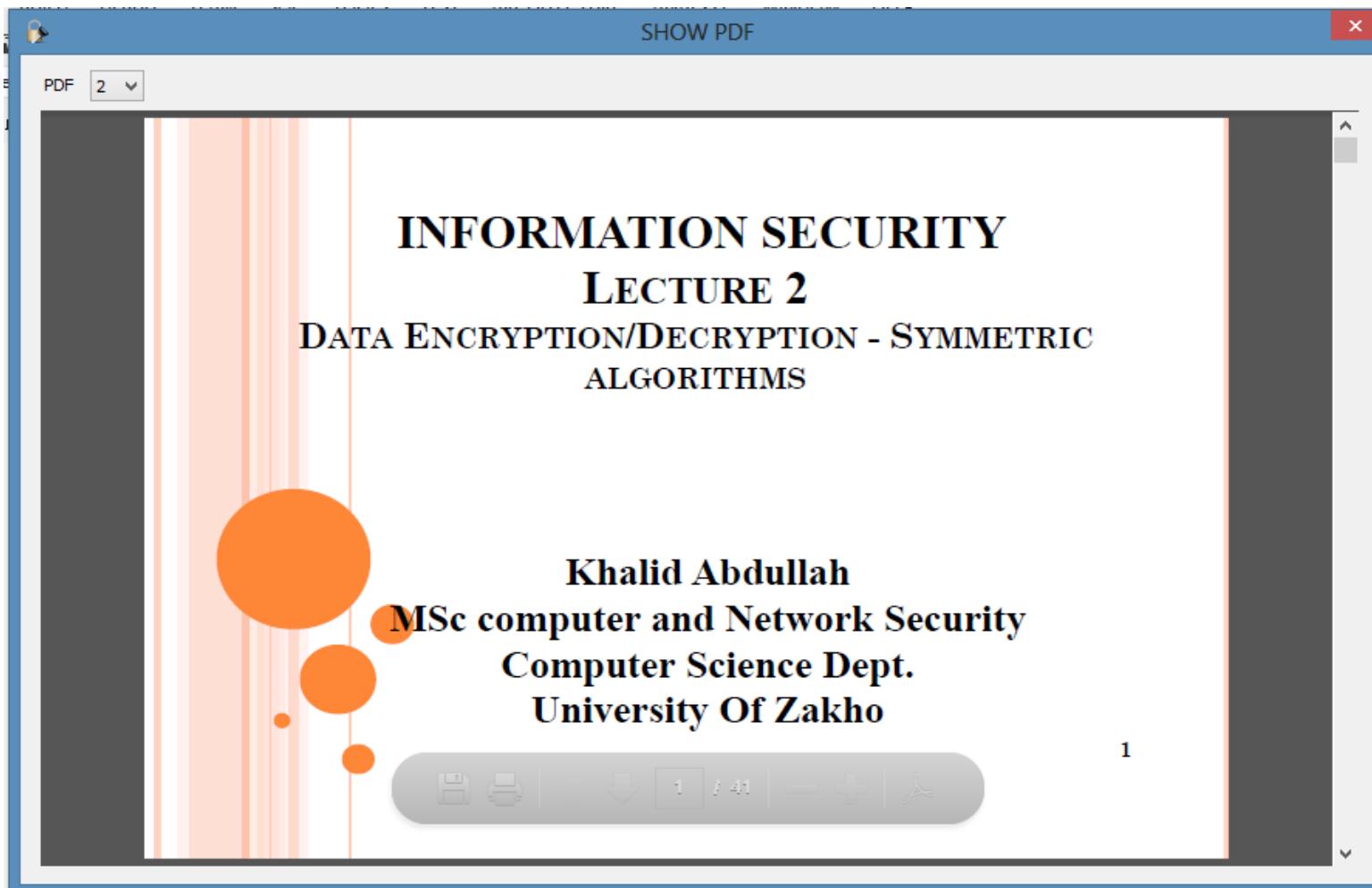


PDF.

- In the main form we have the button (PDF) ,if you clicked it the program show you the new window in this window you have the some PDF , the explain the Security and the Algorithms , that pdf created by:
- **Mr.Khalid Abdullah**



PDF INTERFACE



About us Window

- In the main window we have the button (About) , program show you the window in bellow:



Finally...

- I wish you like it ...

