

Experiment-1

Cryptanalysis of Caesar Cipher using Frequency Analysis

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AIM

Cryptanalysis of Caesar Cipher using Frequency Analysis

PROCEDURE

- Step-1: Take sample encrypted message.
- Step-2: Use Notepad and find the frequency of all letters appearing in the intercept.
- Step-3: Know the frequency of characters in English.
- Step-4: Use the Ctrl + H in the notepad, set the match case and start substituting one by one letters to get the final decrypted text.

SOURCECODE

Encrypted message

URKAGQZODKBFMPAOGYQZFFTQDQEGXFIU
XXNQETAIZUZM2QIEGNIUZPAIFTQFUFXA.
RFTQDQEGXFUZSIUZPAIDAZFMUZENAFTFT.
QZMYQARFTQADUSUZMXPAOGYQZFMZPFTQZ
VDKBFUAZWQKGEQPFQGENSQRWQKEUEEG.
BBADFQPNKEJAEBOUMXUOAZEODOMUZSFT
QVUAZETAIWQKMXXAIEKAGFAEFADQMOABKAR
FTQWQKGEQPRDAYMDQEGXFUZSIUZPAIUF
AMZUZFEQDZMXEFADMSSQRKAGFTQZQZODK

BFMZAF TDD PADGIYQZF IUF TFOEMYQZOCKBFU
 AZYQETAPETQ UOA 2UZEQDEWQKUEMCFUHQIUFU
 ZFTQWQKQZFQK PUMXASNAJFTUEUE TQXBRGX
 QEBQDUMXXKIUF TYADQOAYBXQJWQKE

A-38 - Q	M-19 - A	Y-9 - M
B-11 - P	N-5 - B	
C-0 - Q	O-19 - C	2-35 - N
D-19 - R	P-12 - D	
E-25 - S	Q-52 - E	
F-43 - T	R-8 - F	
G-15 - U	S-7 - G	
H-1 - V	T-23 - H	
I-15 - W	U-35 - I	
J-2 - X	V-0 - J	
K-18 - Y	W-8 - K	
L-0 - Z	X-18 - L	

Q - E

17 - 15 = 2

Shift Value = 12.

FREQUENCY TABLE

A - 8.2%	T - 9.1%
B - 1.5%	U - 2.8%
C - 2.8%	V - 0.98%
D - 4.3%	W - 2.4%
E - 12.7%	X - 0.15%
F - 2.2%	Y - 2.0%
G - 2.0%	Z - 0.074%
H - 6.1%	
I - 7.0%	
J - 0.15%	
K - 0.77%	
L - 4.0%	
M - 2.4%	
N - 6.7%	
O - 7.5%	
P - 1.9%	
Q - 0.095%	
R - 6.0%	
S - 6.3%	

OUTPUTDecrypted msg:

If you encrypt a document the result will be shown in a new sub window. The title of the resulting window contains both the name of the original document and the encryption key used. The usage of keys is supported by two special icons. Clicking the icon 'has key' allows you to store a copy of the key used from a resulting window into an internal storage. If you then encrypt another document with the same encryption method the icon 'insert key' is active within the key entry dialog box. This is helpful especially with more complex keys.

