

Experiment-1

Cryptanalysis of Caesar Cipher using Frequency Analysis

Date: 24/7/25

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

DRKAGIØZODKBFMPAOGYØZEFTØDØEGxFIU
XXNØETAIIZUZM2ØIEGNIUZPAIFTØUFXØA.
RFTØDØEGxFUZSIUZPAIDAZFMUZENAF TFT.
ØZMYØARFTØADUSUZMXPAOGYØZFM2PFTØØZ
ØDKBFUAZWØKGØEØPETOØGEMSØARWØKEUEEGI.
ØBADFØPNKFJAEØQDUMXUØA2EØXØOMØ2SFT
ØUØA2ETAIWØKMXXAIEKAGFAEFADØMOASKAR
FTØWØKGØEØPRDAYMDØEGxFUZSIUØPAIØZF
AMØUØFØDØZMXEFADMØØURKAGFTØZØDØK

BFMZAF TDD PADGIYOLFI BFTFT OEMYQOZOKBFG
A2YQFTAPFTQUOA 202E QDFWOKUE MOFUH OIUF
ZFTQWQKQ2FBK PUMXASNAJFT UENETOKBRGX
QEBQOMXX KIUFYADQDAYBX QJQKE

A-38 - 0	M-19 - A	Y-9 - M
B-11 - P	N-5 - B	
C-0 - Q	O-19 - C	
D-17 - R	P-12 - D	2-35 - N
E-25 - S	Q-52 - E	
F-43 - T	R-8 - F	
G-15 - U	S-7 - G	
H-# - 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 = 12

Shift Value = 12.

FREQUENCY TABLE

Lab Record

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 - 6.2%	
O - 7.5%	
P - 1.9%	
Q - 0.095%	
R - 6.0%	
S - 6.3%	

OUTPUT

Decrypted 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. In this method the icon ~~insert~~ key is active within the key entry dialog box. This is helpful especially with more complex keys.

✓