CRYPTOGRAPHIC CIPHERS TRANSLATOR PROPOSAL

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1. INTRODUCTION

This is a single paged engineered platform developed by Fridolin Mpiza, Tanzania Network and Software Engineer through which a system user can do both encryption and decryption of any cipher by basing on transposition and substitution mechanisms.

An examples of ciphers mechanisms that can be well implemented in the system including Caesar cipher, One Time Pad (OTP), RSA Algorithm, Diffie Helman, Hill Cipher, Rot 13 Cipher, Eucledian Algorithm and Brute Force. Therefore, a system tends to simplify in cryptographic activities.

2. TECHNOLOGIES USED

A system was developed by using the following technologies to make sure that functionalities tend to operate effectively;

- Cryptographic Algorithms,
- JavaScripts (Js) and Cascading Style Sheet (CSS)
- HTML (Hyper Text Mark Up Language)
- Mysql Database

All of these technologies were used to make sure that the whole system is going to undertake the intended functionalities while it is used.

3. PRODUCT FEATURES

3.1   System Dashboard

- A system is a very user friendly since a system user can easily do both encryption and decryption activities with no complications. Therefore, a system user should choose a key to either encrypt or decrypt his cipher or plain text for both transposition and substitution ciphers and finally getting the required output. It appears as follow

Encryption and Decryption Tool!

Welcome to this tool produced by *fridolin* for changing your English Alphabet message into an Encrypted(Ciphertext) as well as changing a cipherText into English Alphabet message normally used by cryptanalysts.

New key

Alphabet

abcdefghijklmnopqrstuvw;

Key

rzfbtkdcvhxulwojsmeygiqr

3.2. Encryption Page

- On this section, a system user can do an encryption of a plaintext by using a certain key. He should choose a certain key by clicking a button written "KEY" and finally the entered/ typed plaintext in the blank space on the system it will give the cipher-text as an output. It appears as follow.

Encrypt

Output : Encrypted text (CipherText)

PlainText to CipherText

CipherText to PlainText

Transposition Ciphers

Substitution Ciphers

3.3. Decryption page

- Also, a system user can do a decryption of a cipher text by using a certain key. He should choose a certain key by clicking a button written "KEY" and finally the entered/ typed cipher text in the blank space on the system it will give the plain-text as an output. It appears as follow.

Decrypt

Output : Decrypted text (PlainText)

PlainText to CipherText

CipherText to PlainText

Transposition Ciphers

Substitution Ciphers

4. SOLUTION ONLINE

Eng. Fridolin, will build software by using an advanced technologies in corresponding to the current global development of science and technology as well as by ensuring the high level of security and scalability. Also, it will allow you to do any updates on page content and images once it is launched and it make an easy integration with analytics software to track page and site performance.

5. EXECUTION TIMELINE
- System execution timeline including several task as follow till making sure that the system is complete to operate.

➔ Initial Design as per discussion to meet client's needs.

➔ Functional Prototype

➔ Application development and Complete Testing

6. PROJECT COSTS

Task	Price (USD)	Price (Tsh)
Initial Invoice	85 / =	200,000/=
Approved Design Invoice	128/ =	300,000/=
Final Invoice	85/ =	200,000/=
TOTAL AMOUNT	290 USD /=	700,000/=