AIM: " Pasword Encryption and Cracking with CrypTool.
Pasword Encryption and Decryption :
Use CrypTool to encrypt passwords using the RC4 algorithm.
Decrypt the encrypted passwords and verify the original values.

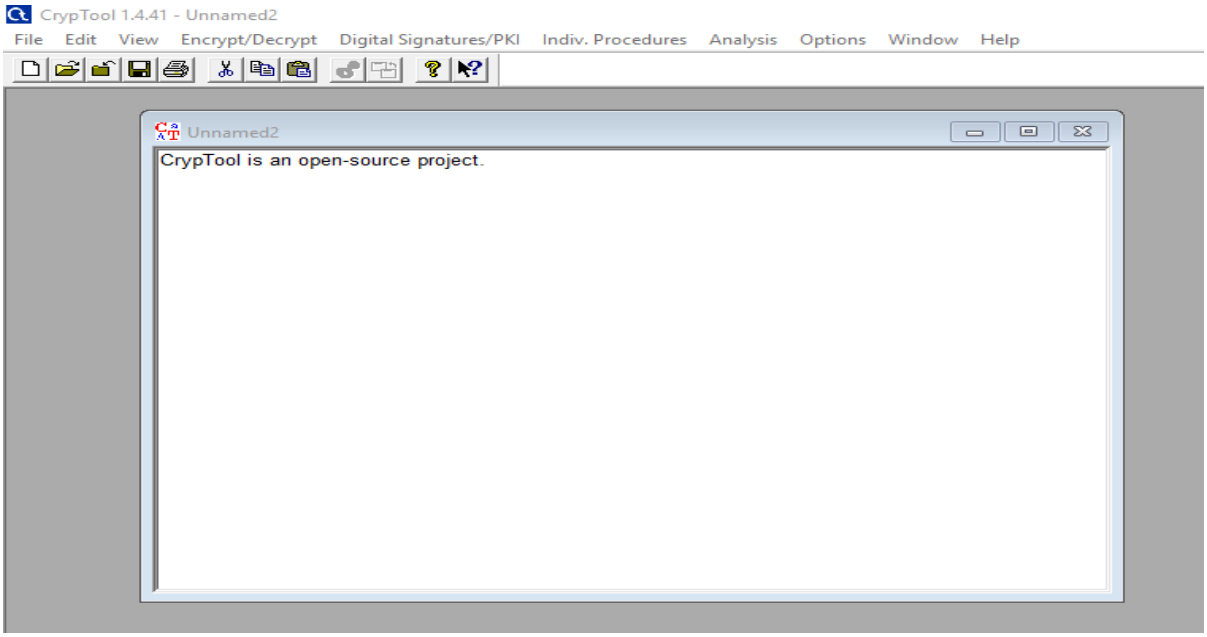
CrypTool:

CrypTool is an open-source project. **CrypTool** contains most classical ciphers, as well as modern symmetric and asymmetric cryptography including RSA, ECC, digital signatures, hybrid encryption, holomorphic encryption, and Diffie–Hellman key exchange.

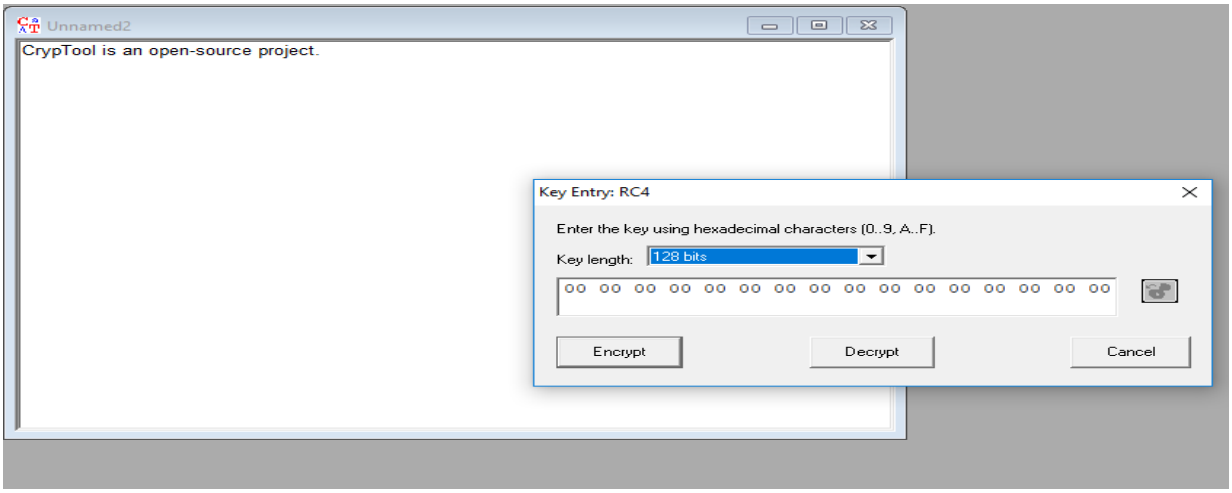
RC4 algorithm:

In cryptography, RC4 is a stream cipher. While remarkable for its simplicity and speed in software, multiple vulnerabilities have been discovered in RC4, rendering it insecure. It is especially vulnerable when the beginning of the output key stream is not discarded, or when nonrandom or related keys are used.

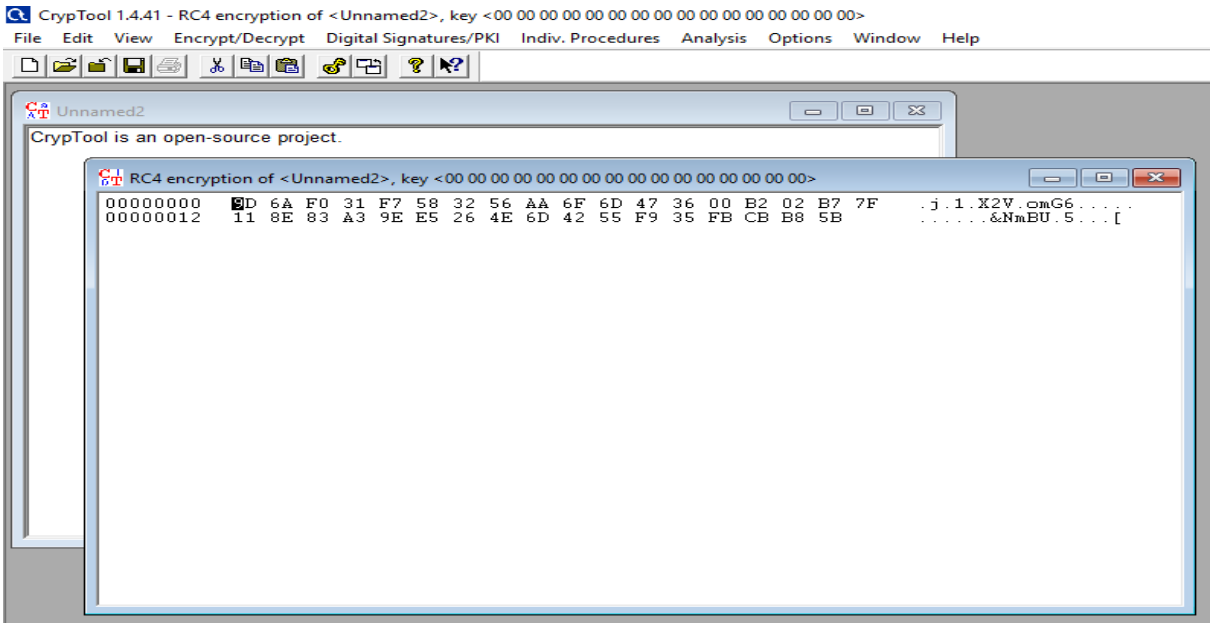
Step 1: open cryptool → go to file → new file → enter the plain text



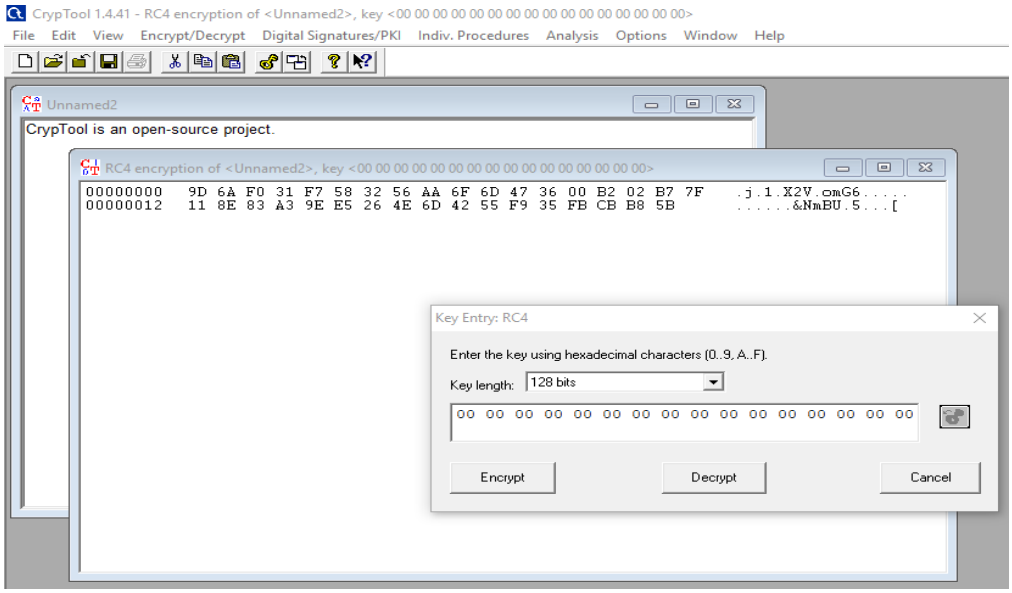
Step 2:- Goto encrypt/decrypt → symmetric model → RC4 → enter key length(128 bits) → click Encrypt

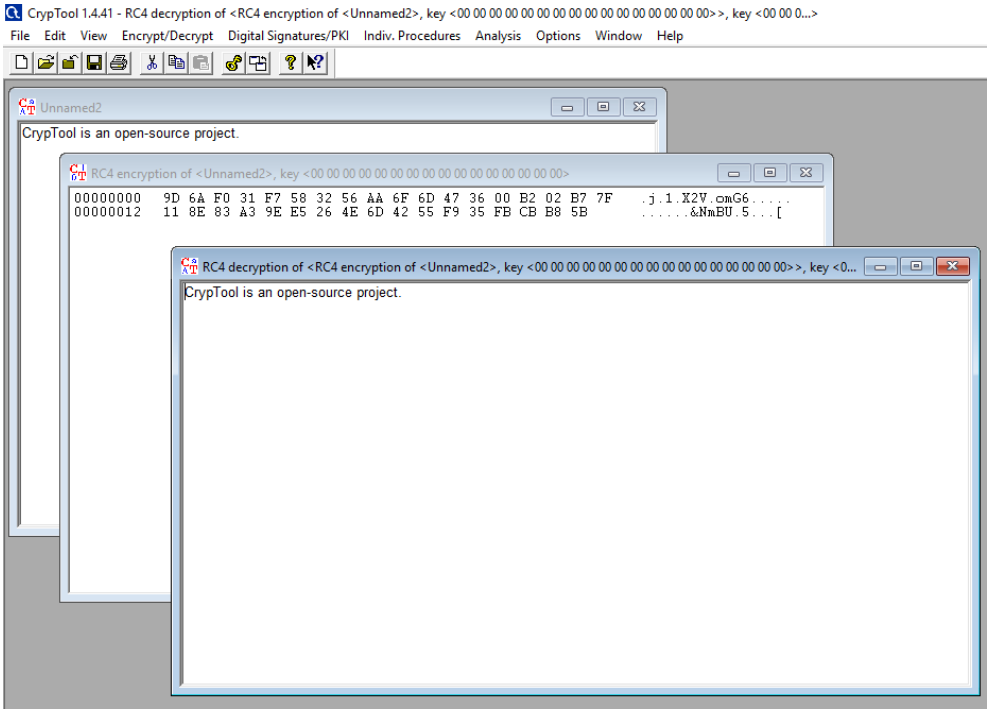


Step 3: after encryption the value is



Step 4: for decryption (go to encrypt/decrypt>>change the bit length 128bits>> decrypt)





CONCLUSION: We encrypted and Decrypted data successfully by using CrypTool and RC4 Algorithm.