

## AES Encryption

Enter Plain Text to Encrypt -

Кожен день є новим початком. Подолайте свої страхи, вірте в себе і рухайтесь вперед. Ваш успіх чекає вас.

The String which is to be encrypted using AES

Select Mode

ECB ▾

AES works in 2 modes - CBC and ECB mode.

**CBC (Cipher Block Chaining)** requires Initialization Vector(IV) to make each message unique. Using IV we randomize the encryption of similar blocks. So any identical plain text blocks will be encrypted into dissimilar cipher text blocks

**ECB(Electronic Code Book)** encryption mode does not need the IV for encryption. The input plain text will be divided into blocks and each block will be encrypted with the key provided and hence identical plain text blocks are encrypted into identical cipher text blocks.

Key Size in Bits

128 ▾

The input can be of 128 bit or 192 bit or 256 bit

So if key size is 128 then "aesEncryptionKey" is a valid secret key because it has 16 characters i.e  $16 \times 8 = 128$  bits

Enter Initialization Vector -



Select Mode

ECB ▾

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Enter Initialization Vector -

The initialization vector is needed in case of CBC mode

The initialization vector size should be 128 bit

So if initialization vector size is 128 then "encryptionIntVec" is a valid initialization vector because it has 16 characters i.e  $16 \times 8 = 128$  bits

Enter Secret Key -

aesEncryptionKey

As AES is a symmetric algorithm the same secret key can be used for both encryption and decryption. The expected secret key have specified in the key size dropdown

So if key size is 128 then "aesEncryptionKey" is a valid secret key because it has 16 characters i.e  $16 \times 8 = 128$  bits

Output Text Format

Base64 ▾

Specify if output format should be in Base64 encoded format or Hex Encoded format.

Encrypt

knJh0zpJ5kYobaxBUPNvcvdYDtt+NCrFBH0qFupdpBx5L7eFZ36jNpjGwIQFsBxBu8GRf\lnsYtw\rl6xhtl+iozDCqFKNiaqs1YHIkYnjSBChvCJ3qF1TgdaTramQeDrzUyUQKZpLk2QrPTDQxQ5a4KzCrb+M1o4a5Ar1R9;

## AES Description

Enter Encrypted Text to Decrypt -

The AES Encrypted String which we want to decrypt

Input Text Format

Specify if input format is in Base64 encoded format or Hex Encoded format.

Select Mode

AES works in 2 modes - CBC and ECB mode.  
CBC (Cipher Block Chaining) requires Initialization Vector(IV) to make each message unique. Using IV we randomize the encryption of similar blocks. So any identical plain text blocks will be encrypted into dissimilar cipher text blocks.  
ECB(Electronic Code Book) encryption mode does not need the IV for encryption. The input plain text will be divided into blocks and each block will be encrypted with the key provided and hence identical plain text blocks are encrypted into identical cipher text blocks.

Key Size in Bits

The Input can be of 128 bit or 192 bit or 256 bit  
So if key size is 128 then "aesEncryptionKey" is a valid secret key because it has 16 characters i.e 16\*8=128 bits

Enter Initialization Vector -

The initialization vector is needed in case of CBC mode  
The initialization vector size should be 128 bit  
So if initialization vector size is 128 then "encryptionIntVec" is a valid initialization vector because it has 16 characters i.e 16\*8=128 bits

Enter Secret Key -

As AES is a symmetric algorithm the same secret key can be used for both encryption and decryption. The expected secret key size we have specified in the key size dropdown  
So if key size is 128 then "aesEncryptionKey" is a valid secret key because it has 16 characters i.e 16\*8=128 bits

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