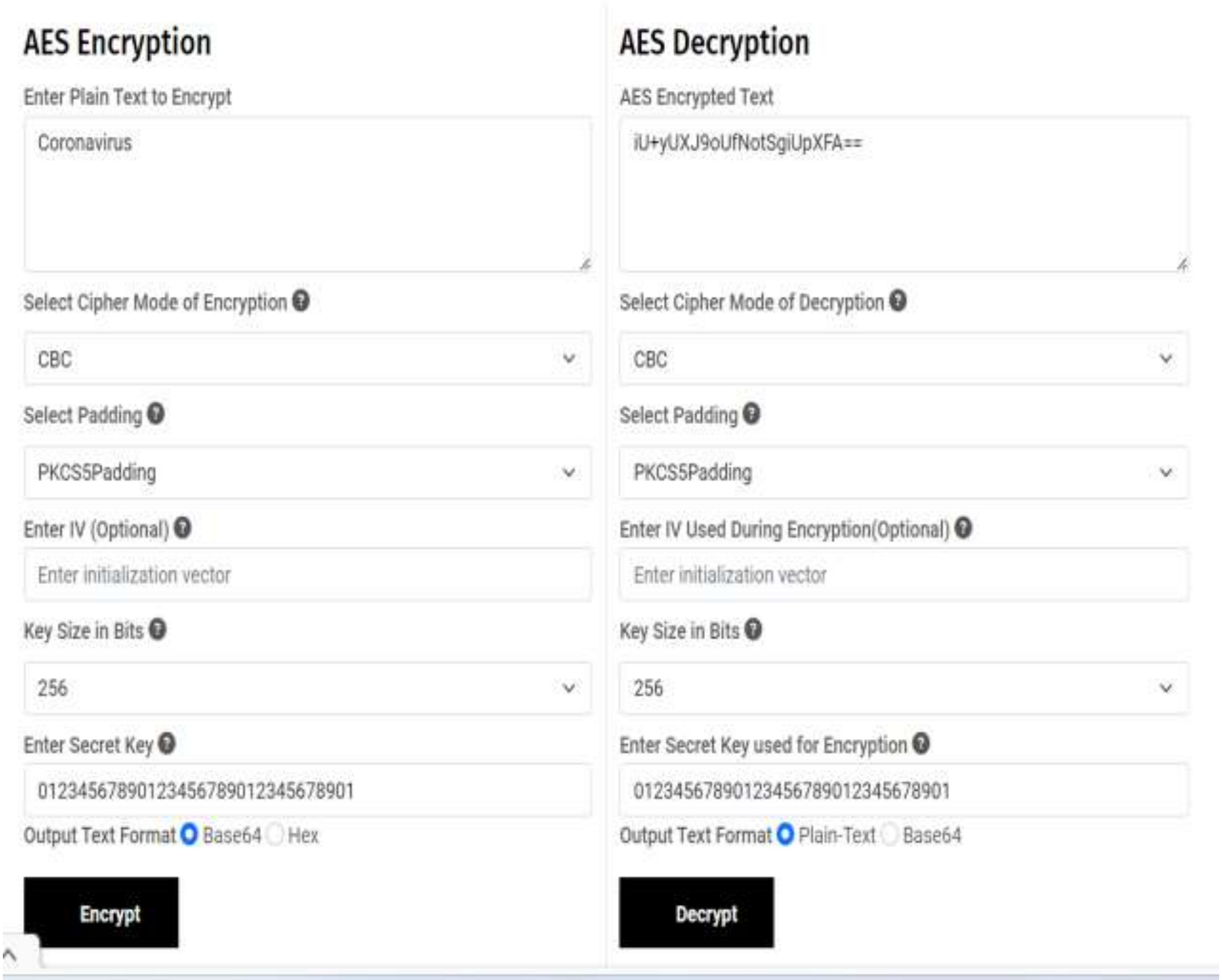
Name: Priyanka, Stu id: 20179, Week 2: Homework 1: Python vs. Online Calculator (CBC Mode)

Example1: CBC mode:



AES Encryption

Enter Plain Text to Encrypt

Coronavirus

Select Cipher Mode of Encryption

CBC

Select Padding

PKCS5Padding

Enter IV (Optional)

Enter initialization vector

Key Size in Bits

256

Enter Secret Key

01234567890123456789012345678901

Output Text Format ● Base64 ○ Hex

Encrypt

AES Decryption

AES Encrypted Text

iU+yUXJ9oUfNotSgiUpXFA==

Select Cipher Mode of Decryption

CBC

Select Padding

PKCS5Padding

Enter IV Used During Encryption(Optional)

Enter initialization vector

Key Size in Bits

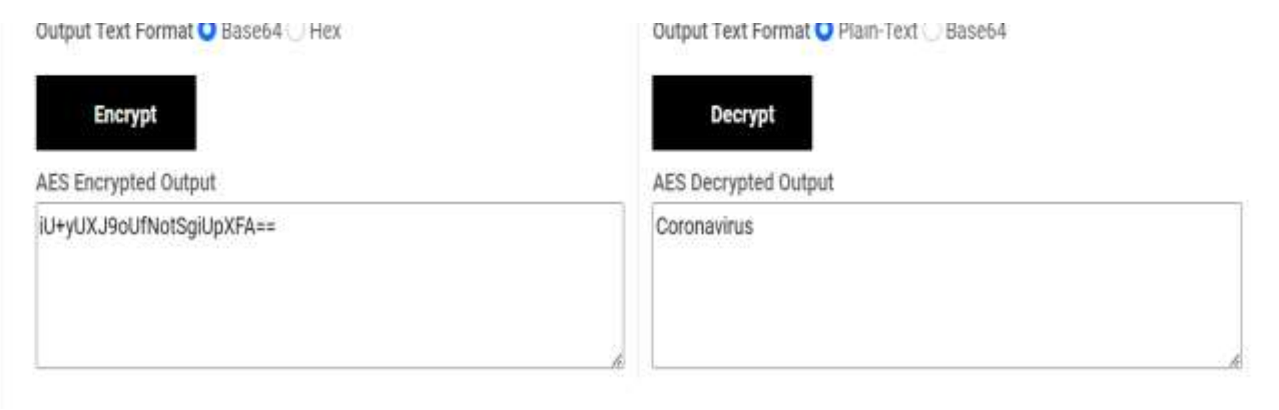
256

Enter Secret Key used for Encryption

01234567890123456789012345678901

Output Text Format ● Plain-Text ○ Base64

Decrypt



Output Text Format ● Base64 ○ Hex

Encrypt

AES Encrypted Output

iU+yUXJ9oUfNotSgiUpXFA==

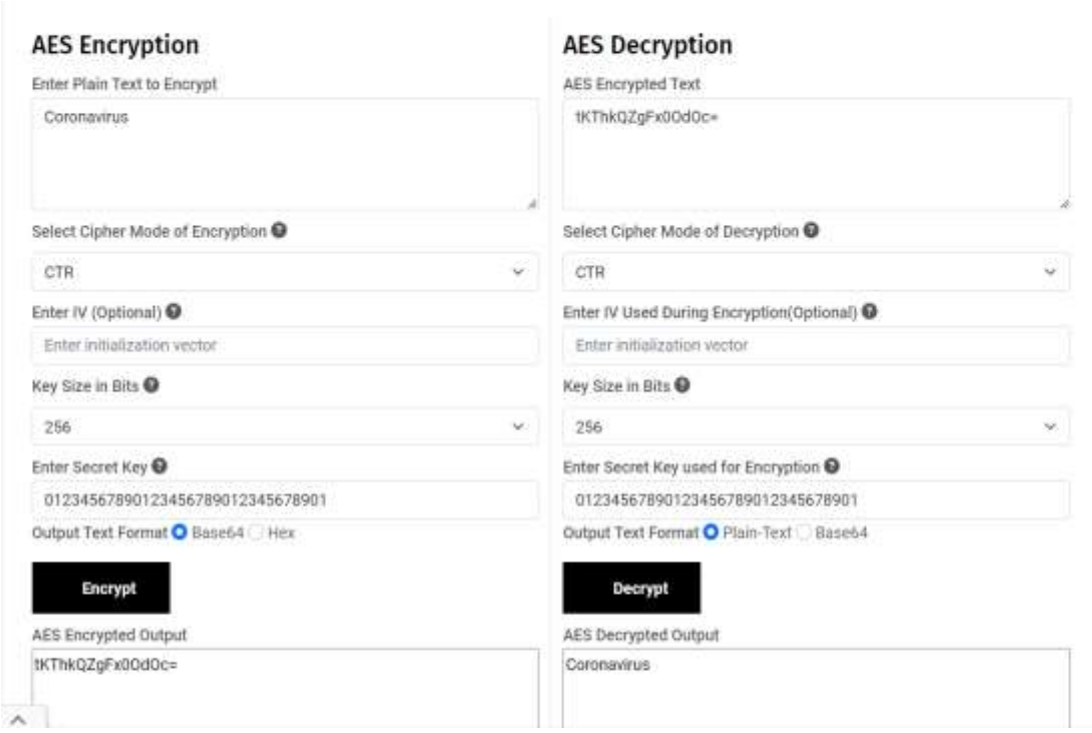
Output Text Format ● Plain-Text ○ Base64

Decrypt

AES Decrypted Output

Coronavirus

CTR Mode



AES Encryption

Enter Plain Text to Encrypt

Coronavirus

Select Cipher Mode of Encryption

CTR

Enter IV (Optional)

Enter initialization vector

Key Size in Bits

256

Enter Secret Key

01234567890123456789012345678901

Output Text Format ● Base64 ○ Hex

AES Encrypted Output

tKThkQZgFx0OdOc=

AES Decryption

AES Encrypted Text

tKThkQZgFx0OdOc=

Select Cipher Mode of Decryption

CTR

Enter IV Used During Encryption(Optional)

Enter initialization vector

Key Size in Bits

256

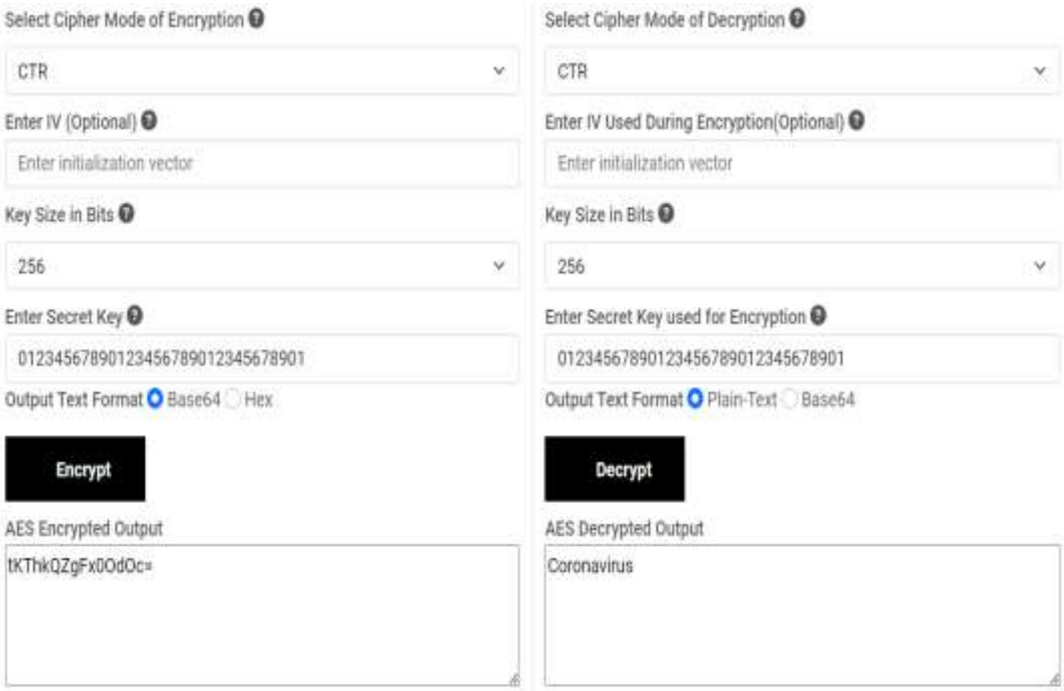
Enter Secret Key used for Encryption

01234567890123456789012345678901

Output Text Format ● Plain-Text ○ Base64

AES Decrypted Output

Coronavirus



Select Cipher Mode of Encryption

CTR

Enter IV (Optional)

Enter initialization vector

Key Size in Bits

256

Enter Secret Key

01234567890123456789012345678901

Output Text Format ● Base64 ○ Hex

AES Encrypted Output

tKThkQZgFx0OdOc=

Select Cipher Mode of Decryption

CTR

Enter IV Used During Encryption(Optional)

Enter initialization vector

Key Size in Bits

256

Enter Secret Key used for Encryption

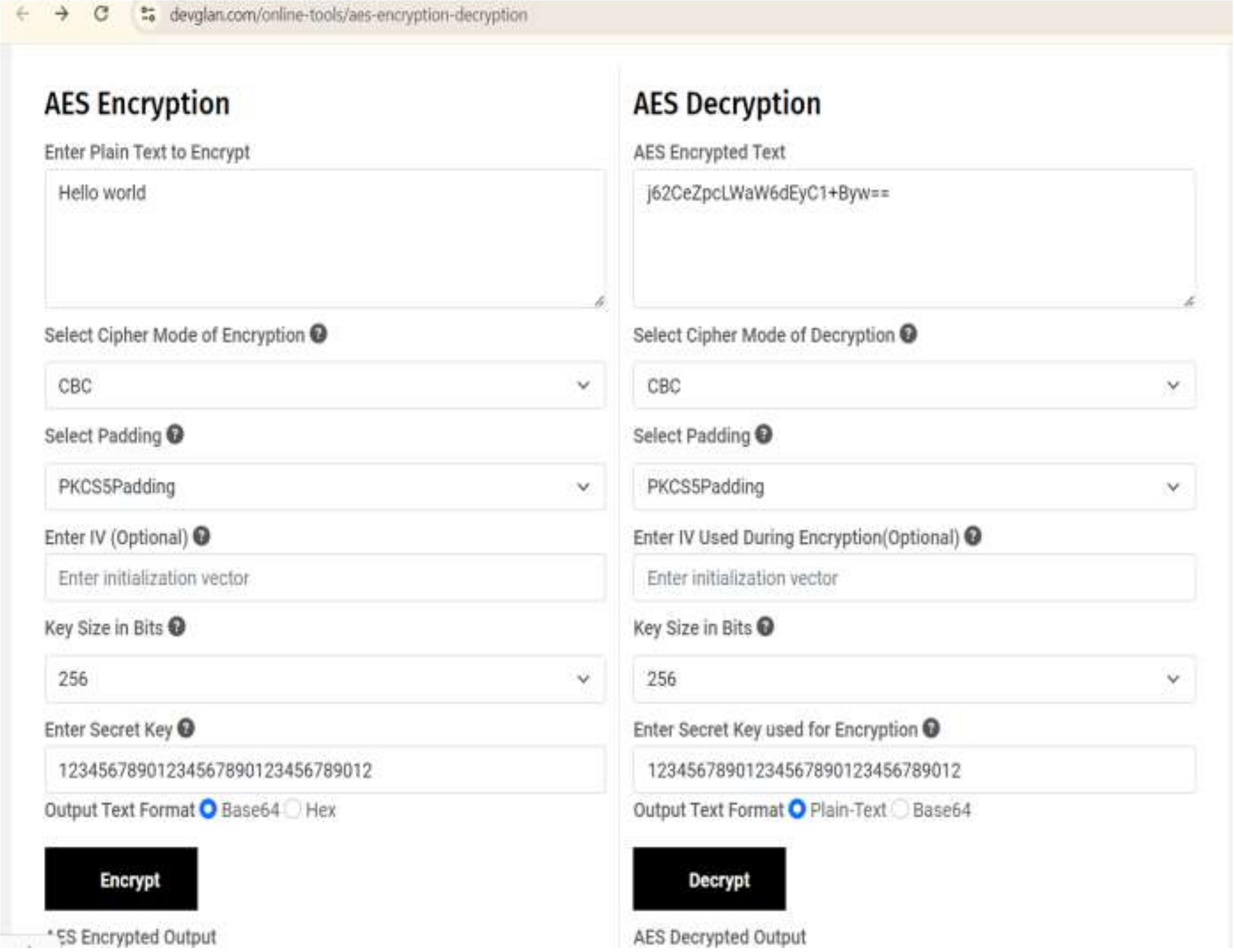
01234567890123456789012345678901

Output Text Format ● Plain-Text ○ Base64

AES Decrypted Output

Coronavirus

Example2



devglan.com/online-tools/aes-encryption-decryption

AES Encryption

Enter Plain Text to Encrypt

Hello world

Select Cipher Mode of Encryption

CBC

Select Padding

PKCS5Padding

Enter IV (Optional)

Enter initialization vector

Key Size in Bits

256

Enter Secret Key

12345678901234567890123456789012

Output Text Format ● Base64 ○ Hex

AES Encrypted Output

AES Decryption

AES Encrypted Text

j62CeZpcLWaW6dEyC1+Byw==

Select Cipher Mode of Decryption

CBC

Select Padding

PKCS5Padding

Enter IV Used During Encryption(Optional)

Enter initialization vector

Key Size in Bits

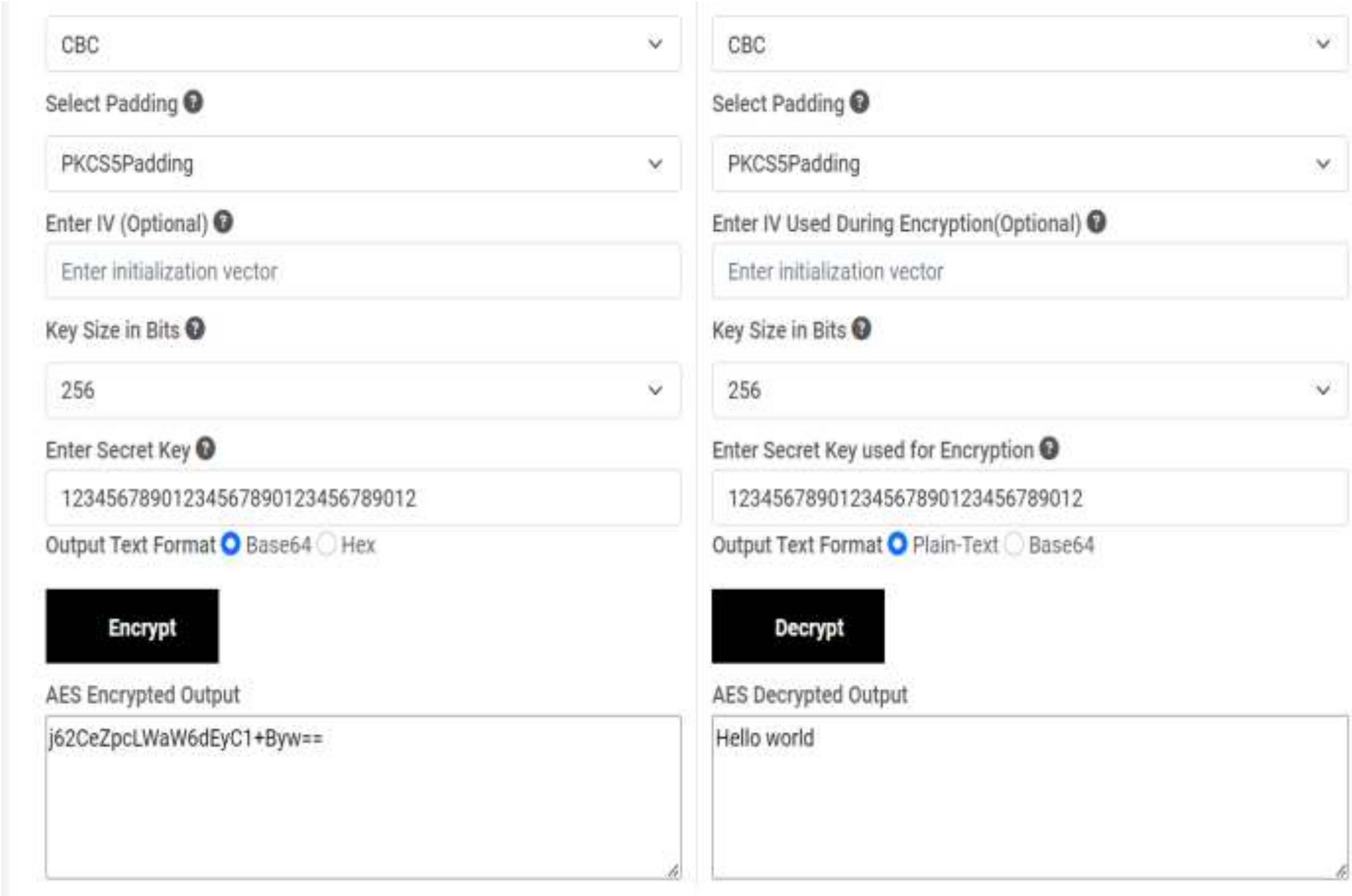
256

Enter Secret Key used for Encryption

12345678901234567890123456789012

Output Text Format ● Plain-Text ○ Base64

AES Decrypted Output



CBC

Select Padding

PKCS5Padding

Enter IV (Optional)

Enter initialization vector

Key Size in Bits

256

Enter Secret Key

12345678901234567890123456789012

Output Text Format ● Base64 ○ Hex

AES Encrypted Output

j62CeZpcLWaW6dEyC1+Byw==

CBC

Select Padding

PKCS5Padding

Enter IV Used During Encryption(Optional)

Enter initialization vector

Key Size in Bits

256

Enter Secret Key used for Encryption

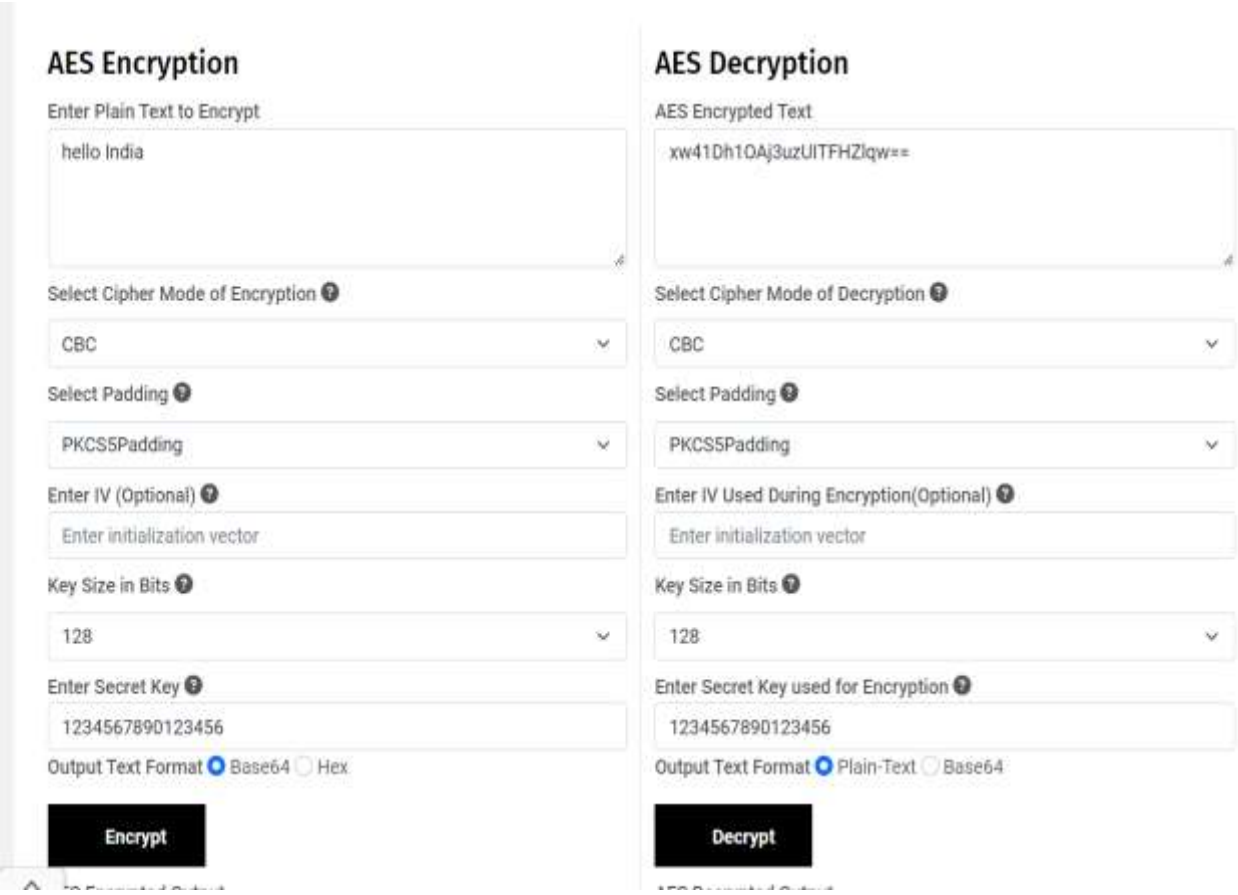
12345678901234567890123456789012

Output Text Format ● Plain-Text ○ Base64

AES Decrypted Output

Hello world

If I change the value of secret key and plaintext to encrypt then :



AES Encryption

Enter Plain Text to Encrypt

hello India

Select Cipher Mode of Encryption

CBC

Select Padding

PKCS5Padding

Enter IV (Optional)

Enter initialization vector

Key Size in Bits

128

Enter Secret Key

1234567890123456

Output Text Format ● Base64 ○ Hex

Encrypt

AES Decryption

AES Encrypted Text

xw41Dh1OAj3uzUITFHZlqw==

Select Cipher Mode of Decryption

CBC

Select Padding

PKCS5Padding

Enter IV Used During Encryption(Optional)

Enter initialization vector

Key Size in Bits

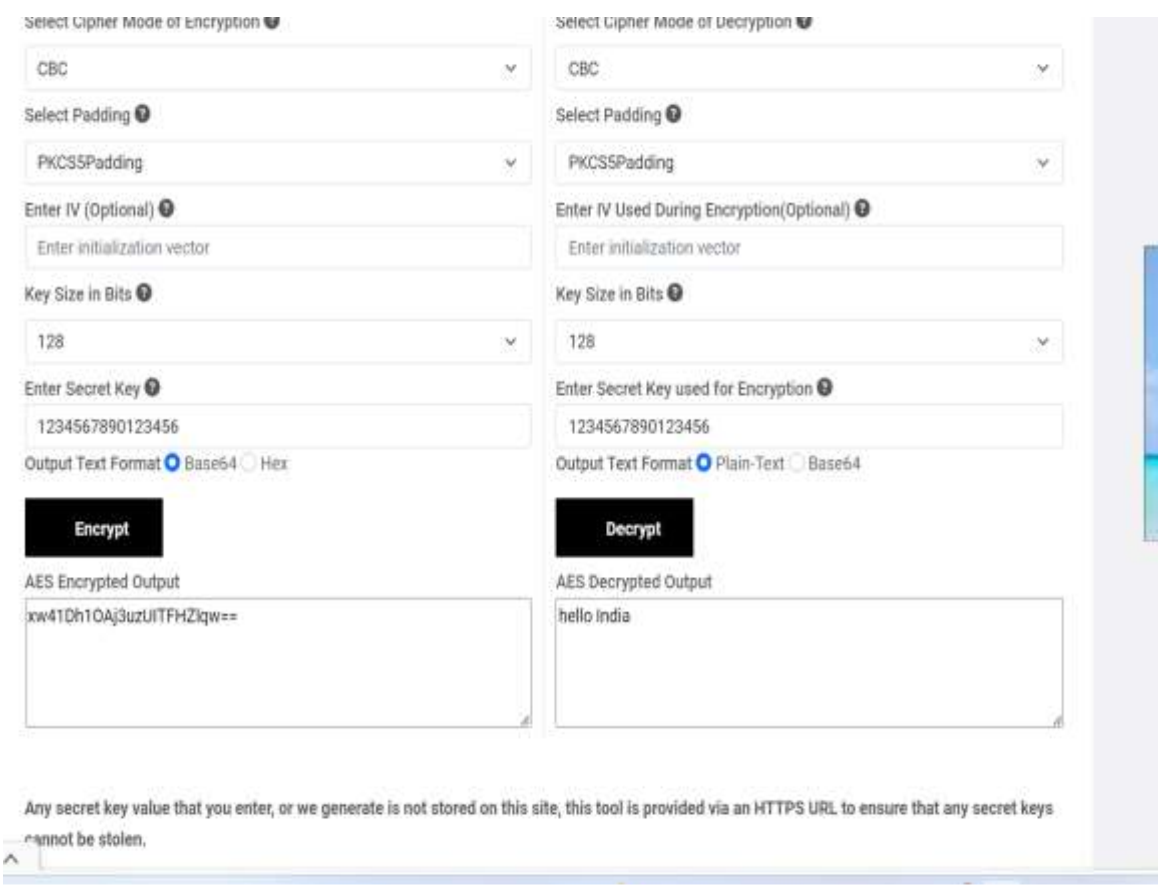
128

Enter Secret Key used for Encryption

1234567890123456

Output Text Format ● Plain-Text ○ Base64

Decrypt



Select Cipher Mode of Encryption

CBC

Select Padding

PKCS5Padding

Enter IV (Optional)

Enter initialization vector

Key Size in Bits

128

Enter Secret Key

1234567890123456

Output Text Format ● Base64 ○ Hex

Encrypt

AES Encrypted Output

xw41Dh1OAj3uzUITFHZlqw==

Select Cipher Mode of Decryption

CBC

Select Padding

PKCS5Padding

Enter IV Used During Encryption(Optional)

Enter initialization vector

Key Size in Bits

128

Enter Secret Key used for Encryption

1234567890123456

Output Text Format ● Plain-Text ○ Base64

Decrypt

AES Decrypted Output

hello India

Any secret key value that you enter, or we generate is not stored on this site, this tool is provided via an HTTPS URL to ensure that any secret keys cannot be stolen.