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Ans3 →

```
def generatekey (string, key):
    key = list (key)
    if len (string) == len(key):
        return (key)
    else:
        for i in range (len(string) - len(key)):
            key.append (key [i % len(key)])
    return("".join(key))

def cipherText (string, key):
    cipher_text = []
    for i in range (len(string)):
        x = (ord (string[i]) + ord (key[i])) % 26
        x += ord('A')
        cipher_text.append (chr(x))
    return ("".join(cipher_text))
```

```
def originalText (cipher_text, key):
    orig_text = []
    for i in range (len(cipher_text)):
        x = (ord(cipher_text[i]) - ord(key[i]
            + 26) % 26)
        x += ord('A')
        orig_text.append(chr(x))
    return("".join(orig_text))

if __name__ == "__main__":
    String: "..."
    Keyword: "..."
    key = generatedkey(string, keyword)
    cipher_text = cipherText(string, key)
    Print("Ciphertext:", cipher_text)
    Print("Original / Decrypted text:", Original
        Text(cipher_text, key))
```