

- 1.) If you haven't already had the chance run the code [minicrypto/code/decypher.py](https://github.com/minicrypto/code/decypher.py)
You may need to copy it from github if you don't have a github clone

Please take note of three things:

A.) Note that the algorithm itself is in a function called decrypt. This is the actual function you'll need.



Remember the algorithm icon we used in the slides

B.) Note the small encrypted text. We've seen it before in the slides:

```
def decrypt(text, shift):  
    cyphertext=''  
    for char in text.lower():  
        #don't bother with space  
        if 'a' <= char <= 'z':  
            cyphertext += chr((ord(char) - shift) % 26 + ord('a'))  
        else:  
            #don't bother with space  
            cyphertext += char  
    return cyphertext
```

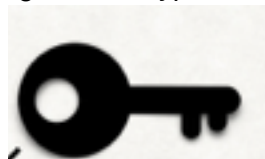
A

```
if __name__ == "__main__":  
    text='c f f g'  
    print decrypt(text, 1)
```

B

C

- C.) Note that we are passing the "decrypt" function the encrypted text and a shift key number
decrypt(text, 1)



2.) We now have the basic pieces of the process.



3.) Think about `decrypt(text, 1)` and answer the following questions for yourself.

Questions:

Do you think all encrypted text you will encounter will only be Caesar shifted 1 space?

How many possible keys could there be?

4.) Manually edit `decrypt.py` in order to decrypt [/minicrypto/blob/master/ciphertext/text1.txt](#). It will likely not have a `key=1`.

Take note of what key number cracks `text1.txt`

5.) Once you've cracked `text1.txt`. Start working with [minicrypto/code/loopdecypher.py](#)

Note the following things:

```
text='nbyly qum uh ifx qiguh qbi fcpyx ch u mbiy. mby bux mi guh'

for i in range(1,4):
    print 'Cipher Shift Attempt ', i, ':'
    print decrypt(text,i)
    command = raw_input('press Enter to continue OR q to quit when')
    if command == 'q':
        print '\n'
        print 'It took ', i, 'tries to crack this code.'
        break
```

A.) Look at that `for i in range(start, stop)` code. It's going to save you typing and loop from start to stop.

B.) Notice the printout/prompts wrapped around `decrypt()`.

C.) Notice it's the good old `text1.txt`

Questions:

Do you want to loop through just that range of keys?

6.) Run loopdecypher.py

7.) Replace the text variable in loopdecypher with the text from </minicrypto/blob/master/ciphertext/text2.txt>. Decrypt it

8.) Replace the text variable in loopdecypher with the text from </minicrypto/blob/master/ciphertext/text3.txt>. Decrypt it