```python
#function menu is defined
def menu():
#print statement of the secret decoder menu is printed
  print("SECRET DECODER MENU")
#response gets the input of a selection based on printed menu
  response = input("""

    0) Quit
    1)  Encode
    2)  Decode
What is your choice?: """)
#returns the value of response
  return response


alpha = "ABCDEFGHIJKLMNOPQRSTUVWXYZ"
key =   "XPMGTDHLYONZBWEARKJUFSCIQV"


#function encode is defined
def encode(plain):
#plain variable now gets an upper method which returns a string where all
characters are in upper case.
  plain = plain.upper()
#value get the value "" which is nothing so far but later on in the
program it will get a value
  value = ""
#for a letter in variable plain
  for letter in plain:
#for a letter in the variable key with all the scrambled letters
    if letter in key:
#variable "en" gets the finding of letters in alpha and stores them in
variable "en"
      en = alpha.find(letter)
# list variable gets the letters from variable key and stores them in
variable list
      list = key[en]
#variable "value" now gets the value of "value" stated before + list. If
we do not include the "value" then the program will not work
      value = value + list
#return statement to return the new value of variable value
  return value

#function decode is defined
def decode(coded):
#value get the value "" which is nothing so far but later on in the
program it will get a value
  value = ""
#coded variable now gets an upper method which returns a string where all
characters are in upper case.
  coded = coded.upper()
#for a letter in variable coded
  for letter in coded:
#for a letter in the variable key with all the scrambled letters
```

```python
        if letter in key:
#variable "de" gets the finding of letters in key and stores them in
variable "de"
            de = key.find(letter)
# list variable gets the letters from variable alpha and stores them in
variable list
            list = alpha[index]
#variable "value" now gets the value of "value" stated before + list. If
we do not include the "value" then the program will not work
            value = value + list
#return statement to return the new value of variable value
    return value




#function main() is defined
def main():
# variable keepGoing gets true
    keepGoing = True
# while loop starts while keepGoing is true
    while keepGoing:
#response gets the input from the function menu
        response = menu()
#if the response is equal to 1:
        if response == "1":
#plain variable gets the input from the user of the prompt "text to be
encoded"
            plain = input("text to be encoded: ")
#print statement of the encoded plain input
            print(encode(plain))
#elif gets introduced if response is equal to 2
        elif response == "2":
#coded variable gets the input from the user of the prompt "code to be
deciphered"
            coded = input("code to be deciphered: ")
#print statement of the decoded coded input
            print (decode(coded))
#elif gets introduced if response is equal to 0
        elif response == "0":
#print statement of a farewell gets printed
            print ("Thanks for doing secret spy stuff with me.")
#keepGoing variable now gets value False
            keepGoing = False
#else statement is including if the program does not recognize the user
input
        else:
#print statement of "I don't know what you want to do" to let the user
know to only input an appropriate response
            print ("I don't know what you want to do...")


#my starter code.
```

```python
if __name__ == "__main__":

    main()
```