In [1]:
```
# Task 1: Case Conversion
# You are building a text processing application that requires different case conversi
# Implement a
# function that takes a string as input and converts it to:
# • • UPPERCASE
# • • lowercase
# • • Title Case (the first letter of each word capitalized)
def toUpperCase(str):
    return str.upper()
def toLowerCase(str):
    return str.lower()
def toTitleCase(str):
    return str.title()

str = input("Enter string :")
print("UPPER CASE:",toUpperCase(str))
print("lower case:",toLowerCase(str))
print("Title Case:",toTitleCase(str))
```

```
UPPER CASE: ABCD EFGH
lower case: abcd efgh
Title Case: Abcd Efgh
```

In [3]:
```
# Task 2: Word Count
# You have a large text document and need to count the occurrence of each word in it.
# that takes
# a string as input and returns a dictionary where the keys are the unique words and t
# of them
# occurrences.
def wordCounter(str):
    words = str.split(" ")
    for i in range(len(words)):
        words[i] = words[i].upper()
    frequency = {}
    for i in range(len(words)):
        if (words[i] in frequency):
            frequency[words[i]]+=1;
        else:
            frequency[words[i]]=1
    return frequency

x = input("Enter paragraph: ")
print(wordCounter(x))
```

```
{'MUHAMMAD': 3, 'ALI': 4, 'HASSAN': 4, 'HUSSAIN': 2}
```

In [8]:
```
#task 3 password Validation
def passwordValidation(str):
    count = 0
    upper = True
    lower = True
    digit = True
    perfect = True
    for i in range(len(str)):
        if str[i].isdigit():
            digit = False
```

```
        if lower:
            if (str[i] == str[i].lower()) and not(str[i].isdigit()):
                lower = False
        if upper:
            if str[i] == str[i].upper() and not(str[i].isdigit()):
                upper = False
        count = i+1

    if " " in str:
        print("No spaces allowed in password")

    if count < 8 :
        print("Password should be 8 characters long")
        perfect = False
    if upper:
        print("Password should contain at least one capital letter")
        perfect = False
    if lower:
        print("Password should contain at least one small letter")
        perfect = False
    if digit:
        print("password should contain at leat one digit")
        perfect = False
    if perfect:
        print("You have Entered a valid password Congratulations!!")

x = input("Enter password: ")
passwordValidation(x)
```

```
Password should be 8 characters long
Password should contain at least one capital letter
password should contain at leat one digit
```

In [9]:

```
#task 4 email parsing
def parseEmail(str):
    gmail = dict()
    email = str.split("@")
    gmail["username"] = email[0]
    gmail["domain"] = email[1].split(".")[0]
    gmail["TopLevelDomain"] = email[1].split(".")[1]
    return gmail

x = input("Enter email : " )

print(parseEmail(x))
```

```
{'username': 'foreverhydercorvit', 'domain': 'gmail', 'TopLevelDomain': 'com'}
```

In [10]:

```
#task 5 string concatenation
def stringConcatenation(string):
    retStr = ""
    for i in string:
        retStr+=i+" "
    return retStr


string = []
print("Enter stop to stop appening!")
while True:
```

```
    x = input("Enter string : ")
    if x == "stop":
        break
    else:
        string.append(x)

print("Concated String is : ",stringConcatenation(string))
```

```
Enter stop to stop appening!

Concated String is :  Muhammad Ali Syeda Hassan Hussain
```

In [11]:

```
#task 6 palindrome
def palinedrome(string):
    if string[0:int(len(string)/2)] == string[int(len(string)/2)+1:][::-1]:
        return True
    else:
        return False

x = input("Enter string : ")
if palinedrome(x):
    print ("Yes, it is a palindrome.")
else:
    print("not palindrome")
```

```
Yes, it is a palindrome.
```