Program 07: Write a program to demonstrate working with dictionaries in python.

```
 b=1
while b!=5:
    inpt=int(input('''Enter your choice :
Enter 1 to create a dictionary.
Enter 2 to display key value pairs.
Enter 3 to display keys and values saperately.
Enter 4 to removing elements.
Enter 5 to exit.'''))
    if inpt==1:
        key=[]
        value=[]
        n=int(input('Enter no of elements : '))
        for i in range(n):
            ele=input('Enter key ')
            key.append(ele)
        key1=tuple(key)
        for i in range(n):
            ele=input('Enter value ')
            value.append(ele)
        value1=tuple(value)
        dict1=dict(zip(key1,value1))
        print('you created a dictionary successfully : \n The dictionary is : \n',dict1)
    elif inpt==2:
        it=dict1.items()
        for i in it:
            print(i)
    elif inpt==3:
        k=dict1.keys() v=dict1.values()
        print('keys of the dictionary are :\n')
```

```python
        for i in k:
            print(i)
        print('values of the dictionary are :\n')
        for i in v:
            print(i)
    elif inpt==4:
        print(dict1.keys())
        r=input('Enter key of that element which you want to remove : ')
        p=dict1.pop(r)
        print(p,'is removed.')
    if inpt >=5:
        break
        b=b+1
    a=input("do you want to continue (y/n): ")
    if a!='y':
        break
```

OUTPUT:-

```
PS C:\Users\amand\Documents\python> python urgent.py
Enter your choice :
     Enter 1 to create a dictionary.
     Enter 2 to display key value pairs.
     Enter 3 to display keys and values saperately.
     Enter 4 to removing elements.
     Enter 5 to exit.1
Enter no of elements : 1
Enter key subject
Enter value python
you created a dictionary successfully :
 The dictionary is :
 {'subject': 'python'}
do you want to continue (y/n): y
Enter your choice :
     Enter 1 to create a dictionary.
     Enter 2 to display key value pairs.
     Enter 3 to display keys and values saperately.
     Enter 4 to removing elements.
     Enter 5 to exit.2
('subject', 'python')
do you want to continue (y/n): y
Enter your choice :
     Enter 1 to create a dictionary.
     Enter 2 to display key value pairs.
     Enter 3 to display keys and values saperately.
     Enter 4 to removing elements.
     Enter 5 to exit.5
PS C:\Users\amand\Documents\python>
```

Program 06 : Write a program to demonstrate working with tuples in python.

```
b=1
while b!=5:
    inpt=int(input('''Enter your choice :
Enter 1 to create a list.
Enter 2 to append in a list.
Enter 3 to remove element from a list.
Enter 4 to show list.
Enter 5 to exit.'''))
    if inpt==1:
        li=[]
        n=int(input('Enter number of elements : '))
        for i in range(n):
            ele=int(input('Enter element '))
            li.append(ele)
        print('list created sucessfully')
    elif inpt==2:
        a=input('Enter element which you want to append : ')
        li.append(a)
        print('element appended sucessfully')
    elif inpt==3:
        a=input('Enter element which you want to remove : ')
        li.remove(a)
        print('element removed sucessfully')
    elif inpt ==4:
        print("your list is : ",li)
    elif inpt >=5:
        break
        b=b+1
    a=input("do you want to continue (y/n): ")
```

if a!='y':

    break

OUTPUT:-

```
PS C:\Users\amand\Documents\python> python urgent.py
Enter your choice :
    Enter 1 to create a list.
    Enter 2 to append in a list.
    Enter 3 to remove element from a list.
    Enter 4 to show list.
    Enter 5 to exit.1
Enter number of elements : 2
Enter element 2
Enter element 3
list created sucessfully
do you want to continue (y/n): y
Enter your choice :
    Enter 1 to create a list.
    Enter 2 to append in a list.
    Enter 3 to remove element from a list.
    Enter 4 to show list.
    Enter 5 to exit.2
Enter element which you want to append : 4
element appended sucessfully
do you want to continue (y/n): y
Enter your choice :
    Enter 1 to create a list.
    Enter 2 to append in a list.
    Enter 3 to remove element from a list.
    Enter 4 to show list.
    Enter 5 to exit.4
your list is :  [2, 3, '4']
do you want to continue (y/n):
```

Program 18: Write a Python class to convert an integer to a roman numeral.

```
class convert:

    num_map = [(1000, 'M'), (900, 'CM'), (500, 'D'), (400, 'CD'), (100, 'C'), (90,  'XC'),(50, 'L'),
(40, 'XL'), (10, 'X'), (9, 'IX'), (5, 'V'), (4, 'IV'), (1, 'I')]

    def roman(self,N):

        roman = ''

        while n > 0:

            for i, r in self.num_map:

                while n >= i:

                    roman += r

                    n -= i

        return roman

n=int(input("Number :"))

print("Roman Number is : ",convert().roman(n))
```
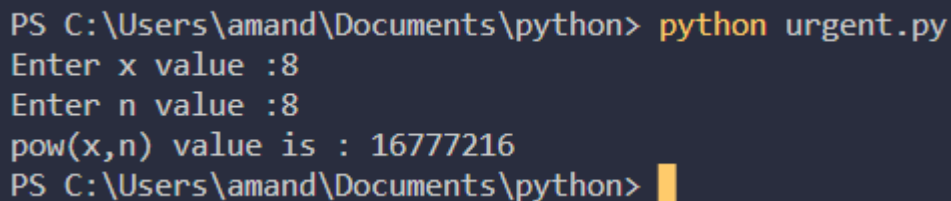
OUTPUT:

```
PS C:\Users\amand\Documents\python> python urgent.py
Number :96
Roman Number is :  XCVI
PS C:\Users\amand\Documents\python> python urgent.py
Number :79
Roman Number is :  LXXIX
PS C:\Users\amand\Documents\python>
```

Program 19 : Write a Python class to implement pow(x, n).

```python
class py_pow:

    def pow(self,x,n):

        if n==0 or x==0 or x==1:

            return n;

        elif n>0:

            x=1

            for i in range(n):

                x=x*n

            return x

x=int(input("Enter x value :"))

n=int(input("Enter n value :"))

print("pow(x,n) value is :",py_pow().pow(x,n));
```
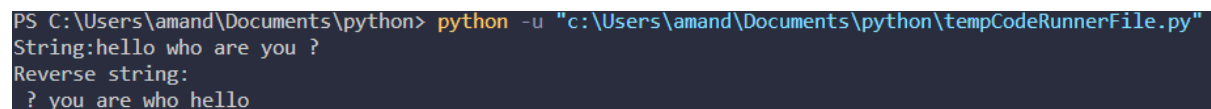
OUTPUT:-

```
PS C:\Users\amand\Documents\python> python urgent.py
Enter x value :8
Enter n value :8
pow(x,n) value is : 16777216
PS C:\Users\amand\Documents\python>
```

Program 20: Write a Python class to reverse a string word by word.

```python
class py_reverse:

    def revr(self, x):

        x=x.split()

        x.reverse()

        y=" ".join(x)

        return y

x=input("String:")

print("Reverse string:\n",py_reverse().revr(x))
```
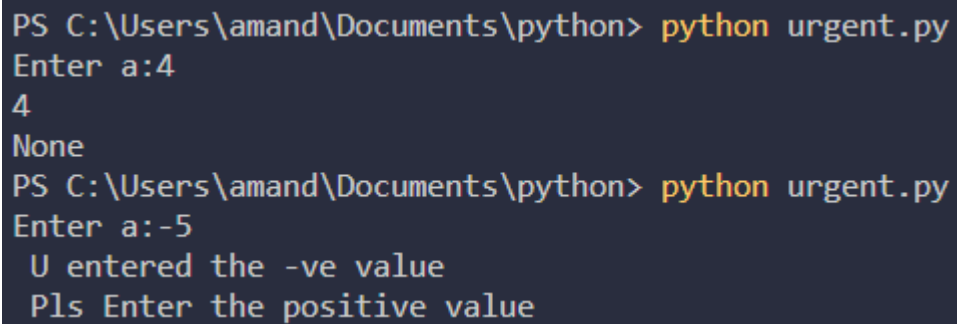
OUTPUT:-

```
PS C:\Users\amand\Documents\python> python -u "c:\Users\amand\Documents\python\tempCodeRunnerFile.py"
String:hello who are you ?
Reverse string:
 ? you are who hello
```

Program 50 : Write a function that uses the input dialog to prompt the user for a positive integer and then checks the input to confirm that it meets the requirements.

```python
def fun(n):
    try:
        if (n<0):
            raise ValueError
        else:
            print(n)
    except ValueError:
        print(" U entered the -ve value\n Pls Enter the positive value")
a=int(input("Enter a:"))
print(fun(a))
```
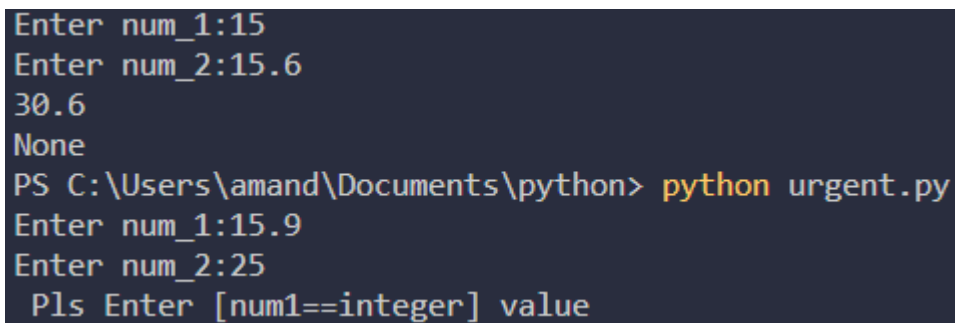
OUTPUT:-

```
PS C:\Users\amand\Documents\python> python urgent.py
Enter a:4
4
None
PS C:\Users\amand\Documents\python> python urgent.py
Enter a:-5
 U entered the -ve value
 Pls Enter the positive value
```

Program 51: Write a program that gets two command line arguments and checks that the first argument represents a valid int number and second argument represents a float number and display sum of those. Make useful feedback if they are not.

```python
def sum(n,k):

    try:

        val=int(n)

        val1=float(k)

        if (n==val and k==val1):

            raise ValueError

        else:

            print(val+val1)

    except ValueError:

        print(" Pls Enter [num1==integer] value")

a=input("Enter num_1:")

b=input("Enter num_2:")

print(sum(a,b))
```

OUTPUT:-

```
Enter num_1:15
Enter num_2:15.6
30.6
None
PS C:\Users\amand\Documents\python> python urgent.py
Enter num_1:15.9
Enter num_2:25
 Pls Enter [num1==integer] value
```

Program 55 :Match for stings that start with From and characters (if any) followed by a two digit number between 00 and 50, followed by :

import re

Str =input("string:")

match=re.search('^From.+([0-4][0-9]:)$',Str)

print(match)

OUTPUT:-

```
PS C:\Users\amand\Documents\python> python -u "c:\Users\amand\Documents\python\Urgent.py"
string:From:3ajgodsg43:
<re.Match object; span=(0, 16), match='From:3ajgodsg43:'>
PS C:\Users\amand\Documents\python> python urgent.py
string:From:gjoejt234jgo54:
None
PS C:\Users\amand\Documents\python>
```