Assignment - 20 More on functions

1. Write a python program to create a function that takes a list and returns a new list with the original list's unique el ements.

```
def list1(n):
    a=set(n)
    print("unique elements in list \n",list(a))

n=[2,3,4,5,2,3,4,6,7]
list1(n)
```

2. Write a python program to create a function that takes a number as a parameter and checks if the number is prime or not.

```
def prime(n):
    for x in range(2,n):
        if n%x==0:
            break
    if n==x+1:
       print("prime")
    else:
        print("not prime")
n=int(input("enter the elements \n"))
prime(n)
```

3. Write a python program to create a function that prints the even numbers from a given list.
Sample List : [1, 2, 3, 4, 5, 6, 7, 8, 9]

```
def even_number(sample_list):
    for x in sample_list:
        if x%2==0:
            print(x)
        else:
            continue

sample_list=[1, 2, 3, 4, 5, 6, 7, 8, 9]
even_number(sample_list)
```

4. Write a python program to create a function that checks whether a passed string is palindrome or not.

```
def palindrome(s):
    a=s[::-1]
    if s==a:
        print("string is palindrome")
    else:
        print("string is not palindrome")

s=input("enter the string\n")
```

```
palindrome(s)
```

5. Write a python program to create a function to find the Min of three numbers.

```
def min_num(*n3):
    z=min(n3)
    print("minimum num in three num is ",z)

min_num(4,5,6)
```

6. Write a python program to create a function and print a list where the values are square of numbers between 1 and 30.

```
def sq_num(n1,n2):
    l1=[]
    for x in range(n1,n2+1):
        l1.append(x**2)
    print(l1)

sq_num(1,30)
```

7. Write a python program to access a function inside a function.

```
def add_num(n1,n2):
    def add(n1,n2):
        return n1+n2

    res=add(n1,n2)
    return res
print("enter two value")
n1,n2=int(input()),int(input())
a=add_num(n1,n2)
print(a)
```

8. Write a python program to create a function that accepts a string and calculate the number of upper case letters an d lower case letters.

```
def UL_letter(s1):
    n1=0
    n2=0
    for x in s1:
        if x.islower():
            n1+=1
        elif x.isupper():
            n2+=1
    print("lower case leeter is ",n1)
    print("upper case letter is ",n2)

s1=input("enter the string ")
UL_letter(s1)
```

9. Write a python program to create a function to check whether a string is a pangram or not.

```
def pangram(s):
    alpha = "abcdefghijklmnopqrstuvwxyz"
    for char in alpha:
        if char not in s.lower():
            return False

    return True

s = 'the quick brown fox jumps over the lazy dog'
if(pangram(s) == True):
    print("str is pangram ")
else:
    print("str is not pangram ")
```

10. Write a python program to create a function to check whether a string is an anagram  or not.

```
def anagram(s1,s2):
    for char in s2:
        if char not in s1.lower():
            return False

    return True

s1,s2='abcd','bcad'
if(anagram(s1,s2) == True):
    print("str is anagram ")
else:
    print("str is not anagram ")
```