PYTHON LAB EXERCISES

1. Write a Python program to print the calendar of a given month and year.

Note:

Take month and year input from the user

year in four digits format for example, 2003, 1997, 2018 etc.

month in digit format, for example 1 to 12.

If month and year are not in specified format display **Invalid Input.**

AIM :

To write a Python program to print the calendar of a given month and year.

PROGRAM :

```
import calendar as cal
year=int(input())
month=int(input())
if(year>999 and year<10000):
if(month>=1 and month<=12):
print(cal.month(year,month))
else:
print("Invalid Input")
else:
print("Invalid Input")
```

OUTPUT:

LINK :

http://103.53.53.18/mod/vpl/forms/submissionview.php?id=229&userid=1653

RESULT :

Thus the python program of the calendar of a given month and year is executed.

2.Given a list in Python and a number x, count number of occurrences of x in the given list.

Write a Python function **countX(lst, x)** to count the number x in a given list of numbers.

Note: Take input (total number of element in the list, list element and x) from the user and call the function **countX(lst, x)**

AIM :

To count the number x in a given list of numbers.

PROGRAM :

```
def countX(lst,x):
count=0
for i in range(0,len(lst)):
if(x1==lst[i]):count=count+1
return count
lst1=[]
n=int(input())
for i in range(0,n):
inp=int(input())
lst1.append(inp)
x1=int(input())
y=countX(lst1,x1)
print(y)
```

OUTPUT :

LINK :

http://103.53.53.18/mod/vpl/forms/submissionview.php?id=230&userid=1653

RESULT :

Thus the python program to count the number x in a given list of numbers is executed.

3.Write a Python program to remove and print every second number from a list of numbers until the list becomes empty.

Note:use function

Take input (total number of element in the list, list element) from the user and call the function removeThirdNumber(int_list)).

AIM :

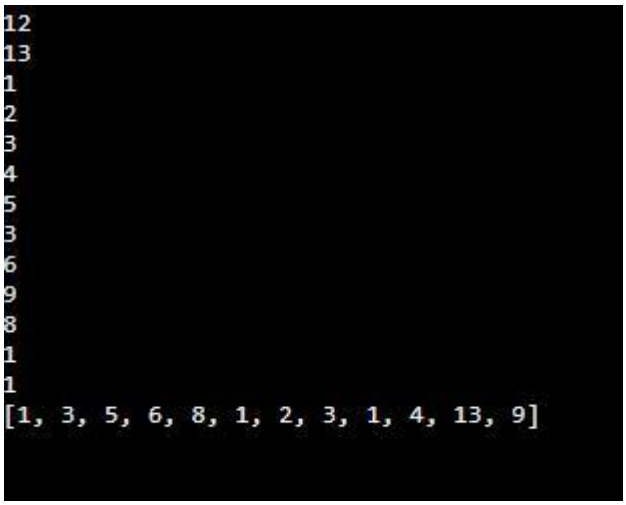
To remove and print every second number from a list of numbers until the list becomes empty.

PROGRAM:

```
def removeThirdNumber(lst):
lst1=[]
pos=1
s=0
for i in range(0,len(lst)):
s=(pos+s)%len(lst)
```

```
el=lst.pop(s)
lst1.append(el)
return lst1
n=int(input())
int_list=[]
for i in range(0,n):
e=int(input())
int_list.append(e)
p=removeThirdNumber(int_list)
print(p)
```

OUTPUT :



LINK :

http://103.53.53.18/mod/vpl/forms/submissionview.php?id=231&userid=1653

RESULT :

Thus the python program to remove and print every second number from a list of numbers until the list becomes empty.

4.Write a Python program (function) to print a single string from two set of strings

received from user and swap the first two characters of each string.
Input:
Python
Java
Output:
jathon pyva
Note:If length of any one of the string is less than 2 then print **Invalid.**

AIM:
To print a single string from two set of strings received from user and swap the first two characters of each string.

POROGRAM :

```
def convert(s):
new=""
for x in s:
new+=x
return new
a=input()
b=input()
s1=a.strip()
s2=b.strip()
if(len(s1)>=2 and len(s2)>=2):
t1=list(s1)
t2=list(s2)
c1=t1[0]c2=t1[1]
t1[0]=t2[0]
t1[1]=t2[1]
t2[0]=c1
t2[1]=c2
s1=convert(t1)
s2=convert(t2)
```

```
print(s1,"",s2)
else:
print("Invalid")
```

OUTPUT:

LINK :

http://103.53.53.18/mod/vpl/forms/submissionview.php?id=234&userid=1653

RESULT:

Thus the python program a single string from two set of strings received from user and swap the first two characters of each string is executed.

5.A program is a sentence that contains all the alphabets at least once. For example,
“The quick brown fox jumps over the lazy dog”. This sentence contains all the alphabets from ‘a’ to ‘z’.
Write a Python function to print missing characters to make string program.

Input Format:

The first line of the input is a string most probably a sentence.

Output Format:

Print the alphabets that are missing in that string to make it a program.

Sample Input:

the quick brown fox jumps over the lazy

Sample Output:

dg

Explanation: The given string contains all the alphabets except ‘d’ and ‘g’. If those two alphabets are included then it would be a program. So, the output is “dg”.

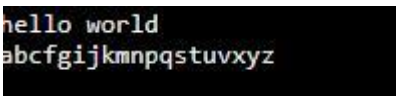
AIM :

To print missing characters to make string program.

PROGRAM :

```
a=input()
a=set(a.strip())a.remove(chr(32))
b="abcdefghijklmnopqrstuvwxyz"
b=set(b)
b=b.difference(a)
b=list(b)
b.sort()
print("".join(b))
```

OUTPUT:



LINK :

http://103.53.53.18/mod/vpl/forms/submissionview.php?id=235

RESULT :

Thus the python program print missing characters to make string program is executed.