

FEDERAL INSTITUTE OF SCIENCE AND TECHNOLOGY (FISAT)TM

HORMIS NAGAR, MOOKKANNOOR

ANGAMALY-683577



'FOCUS ON EXCELLENCE'

LABORATORY RECORD

20MCA131 - PROGRAMMING LAB

Name: ANANTHAKRISHNAN H

Branch: MASTER OF COMPUTER APPLICATION

Semester: 1 Batch: 2021 A Roll No: 20

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Name : ANANTHAKRISHNAN H

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University Exam.Reg. No: FIT21MCA-2020

CERTIFICATE

Certified that this is the Bonafide record of the Practical work done by Mr. **ANANTHAKRISHNAN H** in the **20MCA131- PROGRAMMING** Laboratory of the Federal Institute of Science and Technology during the academic year 2021-2022.

Signature of Staff in Charge

Signature of H.O.D

Name:

Name:

Date:

Date of University practical examination

Signature of

Signature of

Internal Examiner

External Examiner

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| 2 | 28/10/2021 | List comprehensions: (a) Generate positive list of numbers from a given list of integers (b) Square of N numbers (c) Form a list of vowels selected from a given word (d) List ordinal value of each element of a word (Hint: use ord() to get ordinal values) | | |
| 3 | 28/10/2021 | Count the occurrences of each word in a line of text. | | |
| 4 | 28/10/2021 | Prompt the user for a list of integers. For all values greater than 100, store 'over' instead | | |
| 5 | 10/11/2021 | Store a list of first names. Count the occurrences of 'a' within the list | | |
| 6 | 10/11/2021 | Enter 2 lists of integers. Check (a) Whether list are of same length (b) whether list sums to same value (c) whether any value occur in both. | | |
| 7 | 10/11/2021 | Get a string from an input string where all occurrences of first character replaced with '\$', except first character | | |
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| 9 | 10/11/2021 | Accept the radius from user and find area of circle. | | |
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| 11 | 11/11/2021 | Accept a file name from user and print extension of that. | | |
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| 22 | 25/11/2021 | Generate a list of four digit numbers in a given range with all their digits even and the number is a perfect square. | | |
| 23 | 02/12/2021 | Display the given pyramid with step number accepted from user. | | |
| 24 | 02/12/2021 | Count the number of characters (character frequency) in a string. | | |
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| | | | | |
|------------|------------|--|--|--|
| 26 | 09/12/2021 | Accept a list of words and return length of longest word. | | |
| 27 | 09/12/2021 | Construct following pattern using nested loop. * | | |
| 28 | 09/12/2021 | Generate all factors of a number. | | |
| CO3 | | | | |
| 29 | 29/01/2022 | Create a package graphics with modules rectangle, circle and sub-package 3D-graphics with modules cuboid and sphere. Include methods to find area and perimeter of respective figures in each module. Write programs that finds area and perimeter of figures by different importing statements. (Include selective import of modules and import * statements) | | |
| CO4 | | | | |
| 30 | 13/01/2022 | Create Rectangle class with attributes length and breadth and methods to find area and perimeter. Compare two Rectangle objects by their area. | | |
| 31 | 13/01/2022 | Create a Bank account with members account number, name, type of account and balance. Write constructor and methods to deposit at the bank and withdraw an amount from the bank. | | |

| | | | | |
|------------|------------|--|--|--|
| 32 | 20/01/2022 | Create a class Rectangle with private attributes length and width. Overload '<' operator to compare the area of 2 rectangles. | | |
| 33 | 20/01/2022 | Create a class Time with private attributes hour, minute and second. Overload '+' operator to find sum of 2 time | | |
| 34 | 20/01/2022 | Create a class Publisher (name). Derive class Book from Publisher with attributes title and author. Derive class Python from Book with attributes price and no_of_pages. Write a program that displays information about a Python book. Use base class constructor invocation and method overriding. | | |
| CO5 | | | | |
| 35 | 03/02/2022 | Write a Python program to read a file line by line and store it into a list. | | |
| 36 | 03/02/2022 | Write a Python program to read each row from a given csv file and print a list of strings. | | |
| | | | | |

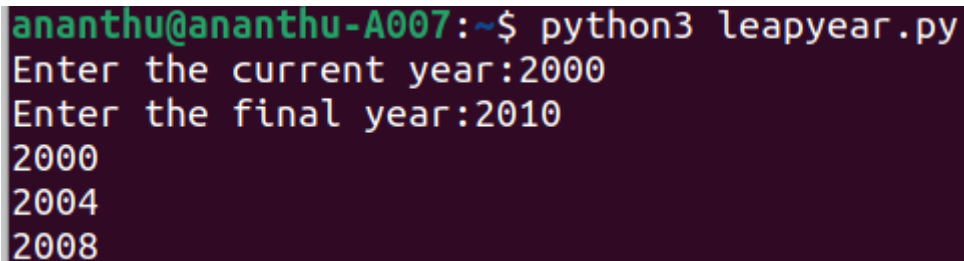
COURSE OUTCOME 1

- 1) Display future leap years from current year to a final year entered by User.

Source code

```
print("print leap year  
between two given years");  
startyear=2021  
endyear=int(input("Enter end year")) print("list of leap years")  
for year in  
    range(startyear,endyear  
): if(0==year%4):  
    print(year)
```

Output



```
ananthu@ananthu-A007:~$ python3 leapyear.py  
Enter the current year:2000  
Enter the final year:2010  
2000  
2004  
2008
```

- 2) List comprehensions:

- a. Generate positive list of numbers from a given list of integers.

Source code

```
list=[-11,4,8,-34,10,14]  
print("Elements in the list are:",list) print("Positive numbers in the list")  
for num in list:  
    if num>=0:
```

```
print(num)
```

Output

```
ananthu@ananthu-A007:~$ python3 positivelist.py
10
4
35
67
```

b. Square of N numbers**Source code**

```
n=int(input('Enter range:'))
for num in range(1,n+1):
    num=num*num
    print(num)
```

Output

```
ananthu@ananthu-A007:~$ python3 square.py
Enter range:5
25
```

c. Form a list of vowels selected from a given word.**Source code**

```
L=[]
s="India is my country"
for i in s:
    if i in ("aeiouAEIOU"):
        L.append(i)
print(L)
```

Output


```
ananthu@ananthu-A007:~$ python3 vowels.py
['I', 'i', 'a', 'i', 'o', 'u']
```

d. List ordinal values of each element of a word.

Source code

```
ordinal=input("Enter a word:")
print("The ASCII value of the letters in the word is")
for letter in ordinal:
    n=ord(letter)
    print(n)
```

Output

```
ananthu@ananthu-A007:~$ python3 ordinal.py
Enter a word:ananthu
The ASCII value of the letters in the word is
97
110
97
110
116
104
117
```

3) Count the occurrences of each word in a line of text.

Source code

```
list1=[]
list2=[]
x=input("Enter a line of text:")
for i in x.split(" "):
    list1.append(i)
    if i not in list2:
```

```
list2.append(i)

for i in list2:
    print(i, "\t", list1.count(i))
```

Output

```
ananthu@ananthu-A007:~$ python3 occ.py
Enter a line of text: Thanks for friends thanks friends
friends                2
```

- 4) Prompt the user for a list of integers. For all values greater than 100, store 'over' instead.

Source code

```
list=[]
while True:
    n=int(input('Enter an integer: '))
    if(n<=100):
        list.append(n)
    else:
        list.append('over')
    print(list)
```

Output

```
ananthu@ananthu-A007:~$ python3 over.py
Enter an integer: 12
Enter an integer: 15
Enter an integer: 200
[12, 15, 'over']
```

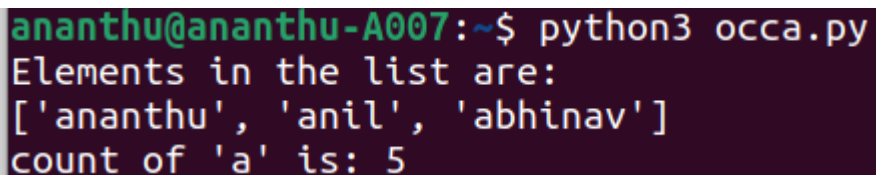
- 5) Store a list of first names. Count the occurrences of 'a' within the list.

Source code

```

list=['ananthu','anil','abhinav']
print("Elements in the list are:")
print(list)
count=0
for word in list:
    for i in word:
        if i=='a':
            count+=1
print("count of 'a' is:", count)

```

Output


```

ananthu@ananthu-A007:~$ python3 occa.py
Elements in the list are:
['ananthu', 'anil', 'abhinav']
count of 'a' is: 5

```

6) Enter 2 lists of integers.Check

- a. whether list are of same length
- b. whether list sums of same value
- c. whether any value occur in both.

Source code

```

l1=[1,2,3,4]
l2=[1,3,2]
print("List 1",l1)
print("List 2",l2)
x=len(l1)
y=len(l2)
if x==y:
    print("List are of same length")
else:
    print("Length of lists are different")
s1=0

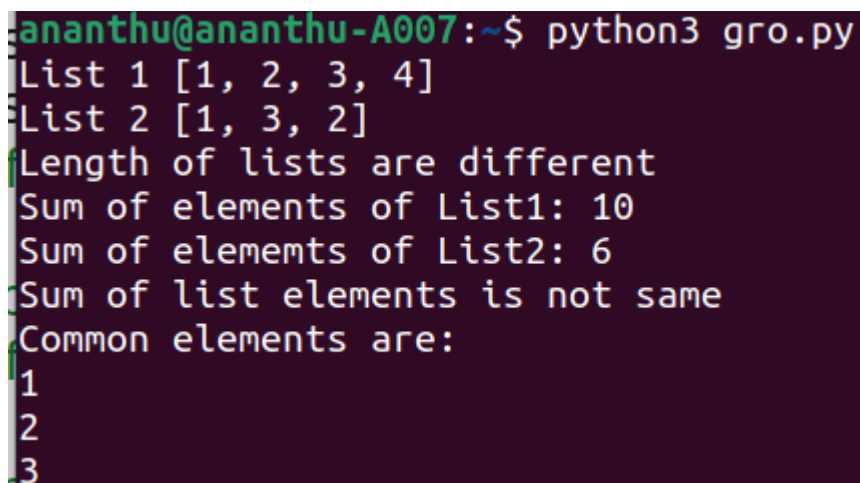
```

```

s2=0
for i in range(x):
    s1=s1+l1[i]
print("Sum of elements of List1:",s1)
for j in range(y):
    s2=s2+l2[j]
print("Sum of elements of List2:",s2)
if s1==s2:
    print("Sum of list elements is same")
else:
    print("Sum of list elements is not same")
print("Common elements are:")
for i in range(x):
    for j in range(y):
        if l1[i]==l2[j]:
            print(l1[i])

```

Output



```

ananthu@ananthu-A007:~$ python3 gro.py
List 1 [1, 2, 3, 4]
List 2 [1, 3, 2]
Length of lists are different
Sum of elements of List1: 10
Sum of elements of List2: 6
Sum of list elements is not same
Common elements are:
1
2
3

```

- 7) Get a string from an input string where all occurrences of first character replaced with '\$', except first character. [eg: onion->oni\$n]

Source code

```
str=input("Enter a string: ")
print("Original string is: ",str)
char=str[0]
str=str.replace(char,'$')
str=char+str[1:]
print("String: ",str)
```

Output

```
ananthu@ananthu-A007:~$ python3 string.py
Enter a string: onion
Original string is:  onion
String:  oni$n
```

- 8) Create a string from given string where first and last characters exchanged.

[eg:python->nythop]

Source code

```
s=input("Enter a string: ")
t=s[0]
t1=s[-1]
n=len(s)
ns=t1+s[1:n-1]+t
print(ns)
```

Output

```
ananthu@ananthu-A007:~$ python3 string1.py
nythop
```

- 9) Accept the radius from the user and find the area of the circle.

Source code

```
r=int(input('Enter the radius: '))
A=3.14*r*r
print(A)
```

Output

```
ananthu@ananthu-A007:~$ python3 area.py
Enter the radius: 5
78.5
```

10) Find the biggest of 3 numbers**Source code**

```
a=int(input('Enter first number:'))
b=int(input('Enter second number:'))
c=int(input('Enter third number:'))
if a>b and a>c:
    print(a)
if b>a and b>c:
    print(b)
if c>a and c>b:
    print(c)
```

Output

```
ananthu@ananthu-A007:~$ python3 biggest.py
Enter first number:25
Enter second number:54
Enter third number:85
85
```

11) Accept a file name from user and print extension of that.**Source code**

```
import os
a=input("Enter file name:")
print("The extension of file",a,"is",os.path.splitext(a))
```

Output

```
ananthu@ananthu-A007:~$ python3 file.py
Enter file name:ananthu
The extension of file ananthu is ('ananthu', '')
```

12) Create a list of colors from comma-separated color names entered by user.

Display first and last colors.

Source code

```
colors=[]
str=(input("Enter color names:"))
for i in str.split(','):
    colors.append(i)
print(colors)
print("first color:",colors[0],"Last color:",colors[-1])
```

Output

```
ananthu@ananthu-A007:~$ python3 color.py
Enter color names:black,orange,red
['black', 'orange', 'red']
first color: black Last color: red
```

13) Accept an integer n and compute n+nn+nnn.

Source code

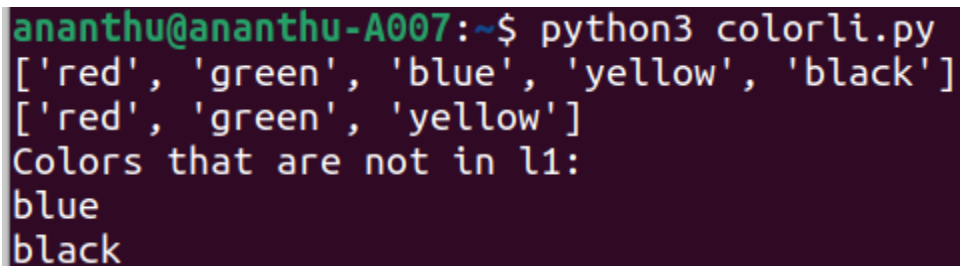
```
n=int(input("Enter the number:"))
a=n*1
b=n*11
c=n*111
s=a+b+c
print(n,"+",n,"*",n,"+",n,"*",n,"*",n,"=",s)
```

Output

```
ananthu@ananthu-A007:~$ python3 n.py
Enter a number:6
738
```

14) Print out all color from color-list1 not contained in color-list2**Source code**

```
l1=['red','green','blue','yellow','black']
l2=['red','green','yellow']
print(l1)
print(l2)
print("Colors that are not in l1:
")
for i in l1:
    if i not in l2:
        print(i)
```

Output

```
ananthu@ananthu-A007:~$ python3 colorli.py
['red', 'green', 'blue', 'yellow', 'black']
['red', 'green', 'yellow']
Colors that are not in l1:
blue
black
```

15) Create a single string separated with space from two strings by swapping the character at position 1.**Source code**

```
str1=input("Enter first string:")
str2=input("Enter second string:")
str3=str2[0]+str1[1:]+ " "+str1[0]+str2[1:]
print(str3)
```

Output


```
ananthu@ananthu-A007:~$ python3 swap.py
Enter first string:anantha
Enter second string:krishnan
knantha arishnan
```

16) Merge two dictionaries.

Source code

```
D1={"Name":"Ananthakrishnan ","Age":"20"}
print("Directory 1",D1)
D2={"Gender":"Male","Qualification":"BSc.Phy"}
print("Directory 2",D2)
D1.update(D2)
print("After merging...")
print(D1)
```

Output

```
ananthu@ananthu-A007:~$ python3 dic.py
Directory 1 {'Name': 'Ananthakrishnan', 'Age': '20'}
Directory 2 {'Gender': 'Male', 'Qualification': 'BSc.Phy'}
After merging...
{'Name': 'Ananthakrishnan', 'Age': '20', 'Gender': 'Male', 'Qualification': 'BSc
.Phy'}
```

17) Find gcd of 2 numbers

Source code

```
a=int(input("Enter first number: "))
b=int(input("Enter first number: "))
x=min(a,b)
gcd=0
for i in range (1,x+1):
    if((a%x==0) and (b%x==0)):
        gcd=i
print("GCD is",i)
```

Output

```
ananthu@ananthu-A007:~$ python3 gcd.py
Enter first number: 5
Enter first number: 12
GCD is 5
```

18) From a list of integers, create a list removing even numbers.

Source code

```
l1=[1,2,3,4,5,6,7,8,9,10]
print(l1)
l2=[]
for i in range(len(l1)):
    if l1[i]%2!=0:
        l2.append(l1[i])
print("List after removing even elements")
print(l2)
```

Output

```
ananthu@ananthu-A007:~$ python3 reeven.py
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
List after removing even elements
[1, 3, 5, 7, 9]
```

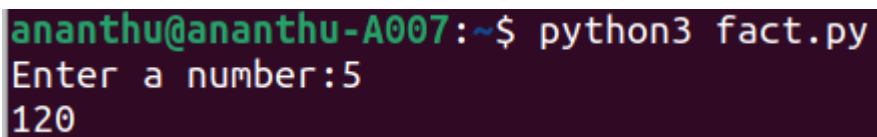
COURSE OUTCOME 2

19) Program to find the factorial of a number.

Source code

```
n=int(input('Enter a number:'))  
fact=1  
for i in range (1,n+1):  
    fact=fact*i  
print(fact)
```

Output



```
ananthu@ananthu-A007:~$ python3 fact.py  
Enter a number:5  
120
```

20) Generate fibonacci series of N terms.

Source code

```
n=int(input('Enter a limit:'))  
a=0  
b=1  
print(a)  
print(b)  
for i in range (2,n):  
    c=a+b  
    print(c)  
    a=b  
    b=c
```

Output

```
ananthu@ananthu-A007:~$ python3 fibo.py
Enter a limit:12
0
1
1
2
3
5
8
13
21
34
55
89
```

21) Find the sum of all items in a list.**Source code**

```
list=[2,6,9,11,25]
print("List elements are:",list)
sum=0
for i in list:
    sum=sum+i
print("The sum of list elements is:",sum)
```

Output

```
ananthu@ananthu-A007:~$ python3 sum.py
List elements are: [2, 6, 9, 11, 25]
The sum of list elements is: 53
```

22) Generate a list of four digit numbers in a given range with all their digits

even and the number is a perfect square.

Source code

```
limit1=1000
limit2=9999
list1=[]
for i in range(limit1,limit2):
    j=i
    digit=[]
    while(i!=0):
        digit.append(i%10)
        i=int(i/10)
    count=0
    for n in digit:
        if n%2==0:
            count=count+1
    if count==4:
        for k in range(31,100):
            if((k**2)==j):
                list1.append(j)
                print(k)

print(list1)
```

Output

```
ananthu@ananthu-A007:~$ python3 perfect.py
68
78
80
92
[4624, 6084, 6400, 8464]
```

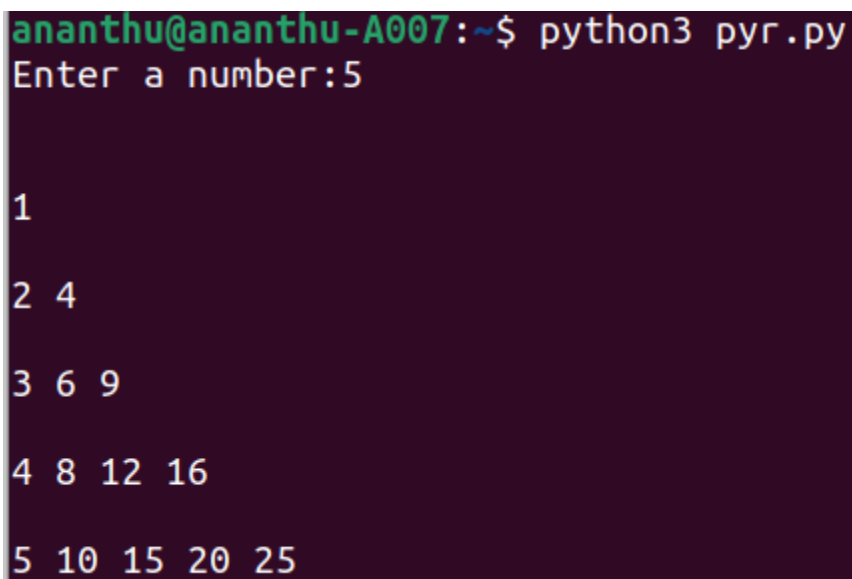
23) Display the given pyramid with step number accepted from user.

Source code

```
n=int(input("Enter a number:"))
for j in range(0,n+1):
    for i in range(1,j+1):
```

```
i=j*i  
print(i,end=" ")  
print("\n")
```

Output



```
ananthu@ananthu-A007:~$ python3 pyr.py  
Enter a number:5  
  
1  
2 4  
3 6 9  
4 8 12 16  
5 10 15 20 25
```

24) Count the number of characters (character frequency) in a string.

Source code

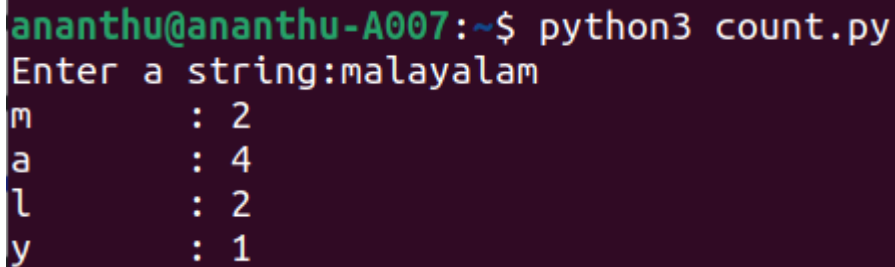
```
string=input("Enter a string:")  
list1=[]  
for i in string:  
    if i not in list1:  
        list1.append(i)  
for i in list1:
```

```

count=0
for j in string:
    if(i==j):
        count=count+1

print(i,"\t:",count)

```

Output


```

ananthu@ananthu-A007:~$ python3 count.py
Enter a string:malayalam
m      : 2
a      : 4
l      : 2
y      : 1

```

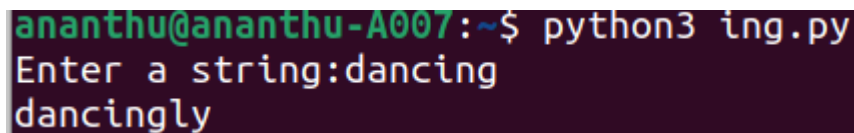
25) Add 'ing' at the end of a given string. If it already ends with 'ing', then add 'ly'.

Source code

```

string=input("Enter a string:")
if(string[-3:]=="ing"):
    string+="ly"
else:
    string+="ing"
print(string)

```

Output


```

ananthu@ananthu-A007:~$ python3 ing.py
Enter a string:dancing
dancingly

```

26) Accept a list of words and return length of longest word.

Source code

```

lis=[]
n=int(input("Enter the range:"))
print("Enter the words:")
for i in range(0,n):
    lis.append(input(""))

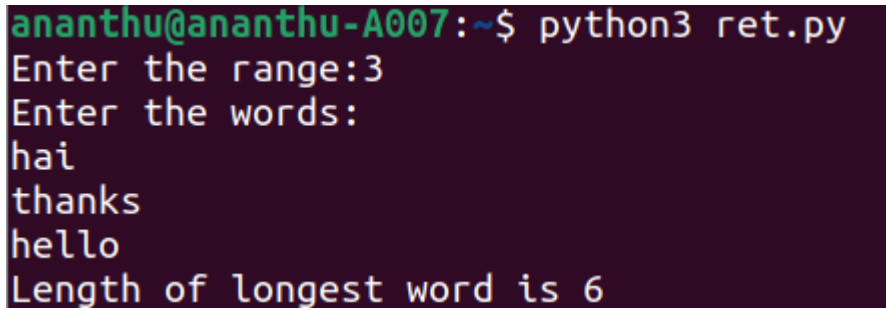
```

```

longest=lis[0]
for i in range(1,n):
    if(len(lis[i])>len(longest)):
        longest=lis[i]
print("Length of longest word is",len(longest))

```

Output



```

ananthu@ananthu-A007:~$ python3 ret.py
Enter the range:3
Enter the words:
hai
thanks
hello
Length of longest word is 6

```

27) Construct following pattern using nested loop.

```

*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*

```

Source code

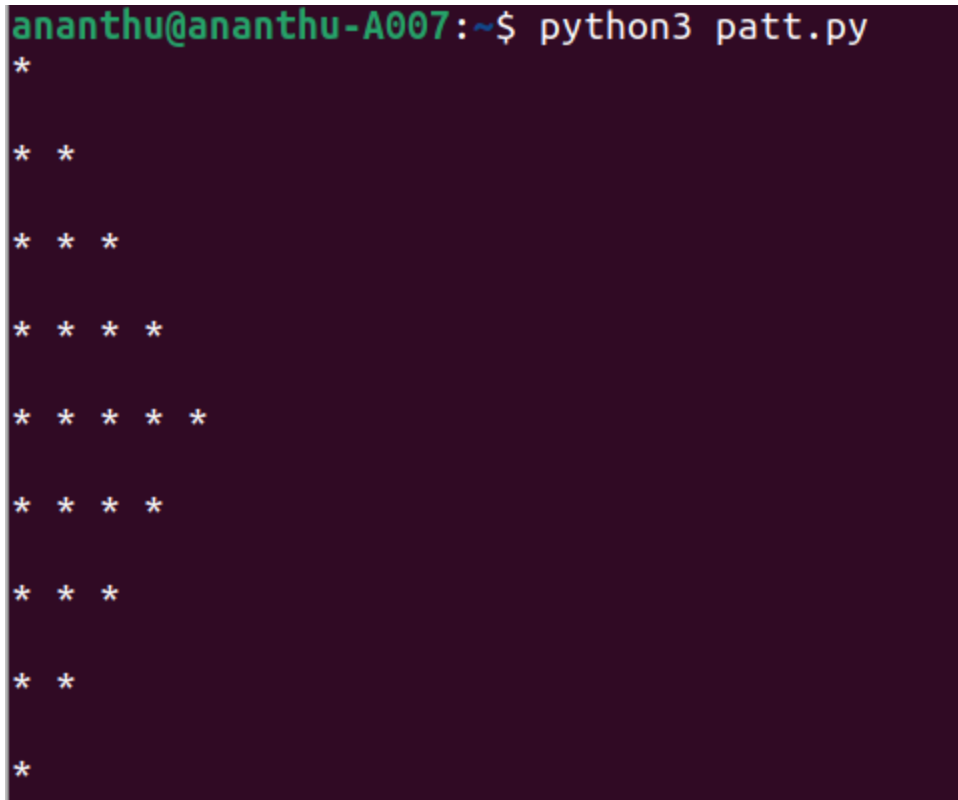
```

for i in range(1,6):
    for j in range(1,i+1):
        print("*",end=" ")
    print("\n")

```



```
for i in range(4,0,-1):  
    for j in range(1,i+1):  
        print("*",end=" ")  
    print("\n")
```

Output

```
ananthu@ananthu-A007:~$ python3 patt.py  
*  
* *  
* * *  
* * * *  
* * * * *  
* * * *  
* * *  
* *  
*
```

28) Generate all factors of a number.**Source code**

```
n=int(input("Enter a number:"))  
print("Factors are")  
for i in range(1,n+1):  
    if(n%i==0):  
        print(i)
```

Output

```

ananthu@ananthu-A007:~$ python3 fact.py
Enter a number:8
Factors are
1
2
4
8

```

COURSE OUTCOME 3

- 29) Create a package graphics with modules rectangle, circle and sub-package 3D-graphics with modules cuboid and sphere. Include methods to find area and perimeter of respective figures in each module. Write programs that finds area and perimeter of figures by different importing statements. (Include selective import of modules and import * statements)

Source code

Graphice\circle.py

```

from math import pi
def area_circle(radius):
    return pi*radius*radius
def perimeter_circle(radius):
    return 2*pi*radius

```

Graphics\rectangle.py

```

def area_rec(length,width):
    return length*width
def perimeter_rec(length,width):
    return 2*(length+width)

```

Graphics\tdgraphics\cuboid.py

```

def area_cuboid(l,b,h):
    return 2*(l*h + b*h + l*b)
def volume_cuboid(l,b,h):
    return l*b*h

```

Graphics\tdgraphics\sphere.py

```

from math import pi

def area_sphere(radius):
    return 4*(pi*radius*radius)

def perimeter_sphere(radius):
    return 2*pi*radius

```

graphics.py (driver code)

```

import Graphics

from Graphics import circle,rectangle
from Graphics.tdgraphics import cuboid,sphere
from Graphics.circle import *

print("Area of a circle with radius 10 is :",circle.area_circle(10))
print("Perimeter of a circle with radius 10 is ",circle.perimeter_circle(10))
print("\n")

print("Area of a Rectangle with length and width 10 is :
      ",rectangle.area_rec(10,10))

print("Perimeter of a Rectangle with length and width 10 is :
      ",rectangle.perimeter_rec(10,10))
print("\n")

print("Area of a cuboid with length,width,height 10 is :
      ",cuboid.area_cuboid(10,10,10))

print("Volume of a cuboid with length,width,height 10 is :
      ",cuboid.volume_cuboid(10,10,10))
print("\n")

print("Area of a sphere with radius 10 is :",sphere.area_sphere(10))
print("Perimeter of a sphere with radius 10 is ",sphere.perimeter_sphere(10))

```

Output

```
Area of a circle with radius 10 is : 314.1592653589793  
Perimeter of a circle with radius 10 is 62.83185307179586
```

```
Area of a Rectangle with length and width 10 is : 100  
Perimeter of a Rectangle with length and width 10 is : 40
```

```
Area of a cuboid with length,width,height 10 is : 600  
Volume of a cuboid with length,width,height 10 is : 1000
```

```
Area of a sphere with radius 10 is : 1256.6370614359173  
Perimeter of a sphere with radius 10 is 62.83185307179586
```

COURSE OUTCOME 4

30) Create Rectangle class with attributes length and breadth and methods to find area and perimeter. Compare two Rectangle objects by their area.

Source code

```
class Rectangle:

    def __init__(self,length,breadth):

        self.length = length

        self.breadth = breadth

    def area(self):

        return self.length * self.breadth

    def perimeter(self):

        return 2*(self.length + self.breadth)

l=int(input("Enter length of rectangle1: "))

b=int(input("Enter breadth of rectangle1: "))

rect1 = Rectangle(l,b)

a1=rect1.area()

p1=rect1.perimeter()

print("Area:",a1)

print("Perimeter:",p1)

l=int(input("Enter length of rectangle2: "))

b=int(input("Enter breadth of rectangle2: "))

rect2 = Rectangle(l,b)

a2=rect2.area()

p2=rect2.perimeter()

print("Area:",a2)
```

```

print("Perimeter:",p2)

if (a1>a2):

    print("First rectangle is larger")

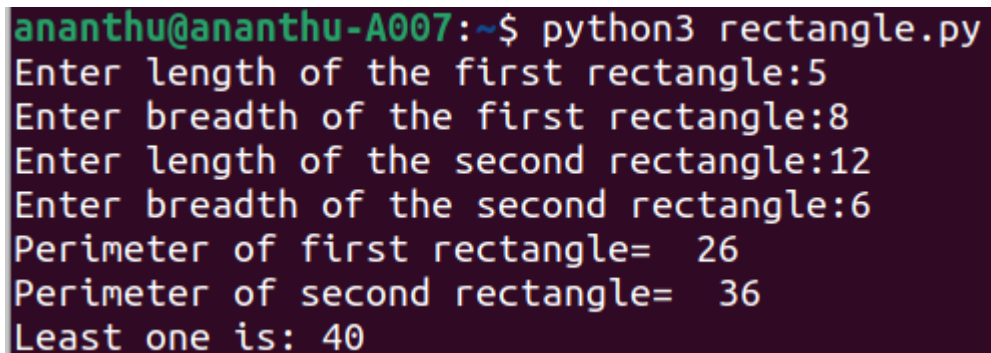
elif a1==a2:

    print("Rectangles are of same area")

else:

    print("Second rectangle is larger")

```

Output


```

ananthu@ananthu-A007:~$ python3 rectangle.py
Enter length of the first rectangle:5
Enter breadth of the first rectangle:8
Enter length of the second rectangle:12
Enter breadth of the second rectangle:6
Perimeter of first rectangle= 26
Perimeter of second rectangle= 36
Least one is: 40

```

31) Create a Bank account with members account number, name, type of account and balance. Write constructor and methods to deposit at the bank and withdraw an amount from the bank.

Source code

```

class bank:

    def __init__(self,acc_no,name,acc_type,bal):

        self.acc_no=acc_no

        self.name=name

        self.acc_type=acc_type

        self.bal=bal

    def deposit(self):

```

```
        self.bal=self.bal+y

        return self.bal

    def withdraw(self):

        return self.bal-y

    def display_balance(self):

        return self.bal

acc1=bank("b11","Ann","Savings",50000)

while(1):

    print("1.Deposit\n2.Withdraw\n3.Display balance\n4.Exit\n")

    ch=int(input("Enter your choice:"))

    if ch==1:

        amt=int(input("Enter the amount:"))

        b=acc1.deposit(amt)

        print("Current balance:",b)

    elif ch==2:

        amt=int(input("Enter the amount:"))

        b=acc1.withdraw(amt)

        print("Current balance:",b)

    elif ch==3:

        cb=acc1.display_balance()

        print("Current balance:",cb)

    elif ch==4:

        exit(1)

    else:
```

```
print("Invalid choice")
```

Output

```
ananthu@ananthu-A007:~$ python3 bank.py
1.Deposit
2.Withdraw
3.Display balance
4.Exit

Enter your choice:1
Enter the amount:10000
Current balance: 60000
1.Deposit
2.Withdraw
3.Display balance
4.Exit

Enter your choice:2
Enter the amount:20000
Current balance: 40000
1.Deposit
2.Withdraw
3.Display balance
4.Exit

Enter your choice:3
Current balance: 60000
1.Deposit
2.Withdraw
3.Display balance
4.Exit

Enter your choice:4
```

32) Create a class Rectangle with private attributes length and width. Overload ‘<’ operator to compare the area of 2 rectangles.

Source code

```
class Rectangle:
    def __init__(self,length,breadth):

        self.__length = length
```



```
        self.__breadth = breadth

    def __lt__(self, rect2):

        if self.__length*self.__breadth < rect2.__length*rect2.__breadth:

            return True

        else:

            return False

l=int(input("Enter length of rectangle1: "))

b=int(input("Enter breadth of rectangle1: "))

rect1 = Rectangle(l,b)

l=int(input("Enter length of rectangle2: "))

b=int(input("Enter breadth of rectangle2: "))

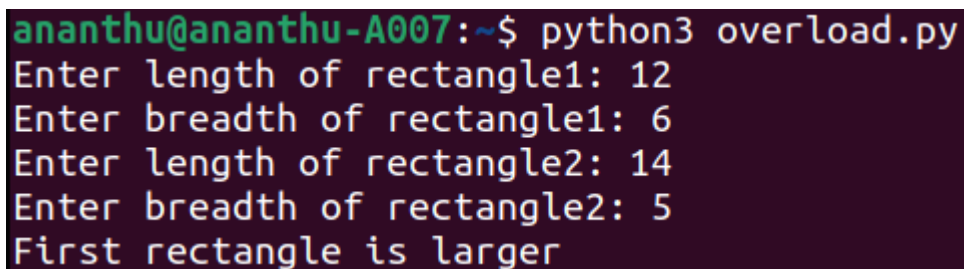
rect2 = Rectangle(l,b)

if rect1 < rect2:

    print("Second rectangle is larger")

else:

    print("First rectangle is larger")
```

output

```
ananthu@ananthu-A007:~$ python3 overload.py
Enter length of rectangle1: 12
Enter breadth of rectangle1: 6
Enter length of rectangle2: 14
Enter breadth of rectangle2: 5
First rectangle is larger
```

33) Create a class Time with private attributes hour, minute and second.

Overload '+' operator to find sum of 2 time.

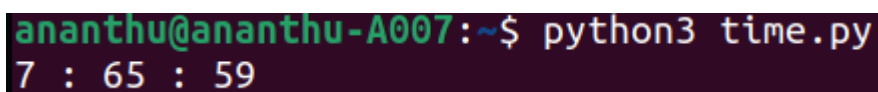
Source code

```
class Time:
    def __init__(self,h,m,s):
        self.__hour=h
        self.__minute=m
        self.__second=s
    def __add__(self,ob):
        hour=self.__hour+ob.__hour
        minute=self.__minute+ob.__minute
        second=self.__second+ob.__second
        t=Time(hour,minute,second)
        return t

    def print_it(self):
        print("Hour :",self.__hour)
        print("Minute :",self.__minute)
        print("Second :",self.__second)
```

```
t1=Time(10,10,10)
t2=Time(20,20,20)
t3=t1+t2
t3.print_it()
```

Output



```
ananthu@ananthu-A007:~$ python3 time.py
7 : 65 : 59
```

34) Create a class Publisher (name). Derive class Book from Publisher with attributes title and author. Derive class Python from Book with attributes price and no_of_pages. Write a program that displays information about a Python book. Use base class constructor invocation and method overriding.

Source code

```
class Publisher(object):
    def __init__(self,name):
        self.name=name
    def display1(self):
        print(self.title)
        print(self.author)

class Book(Publisher):
    def __init__(self,name,title,author):
        super().__init__(name)
        self.title=title
        self.author=author
    def display2(self):
        #super().display1()
        print(self.title)
        print(self.author)

class Python(Book):
    def __init__(self,name,title,author,price,no_of_pages):
        super().__init__(name,title,author)
        self.price=price
        self.no_of_pages=no_of_pages
    def display3(self):
        super().display2()
        print(self.price)
        print(self.no_of_pages)

p=Python("ABC Publications","Taming Python","jeeva jose",100,500)
p.display3()

q=Python("XYZ Publications","Java programming","E
Balagurusami",500,1200)
```

q.display3()

Output

```
ananthu@ananthu-A007:~$ python3 publi.py
Taming Python
jeeva jose
100
500
Java programming
E Balagurusami
500
1200
```

COURSE OUTCOME 5

35) Write a Python program to read a file line by line and store it into a list.

Source code

```
fp=open("text_file.txt",'r')
lines=[]
for line in fp:
    lines.append(line.strip())
print(lines)
```

Output

```
['Tamil Nadu, a South Indian state, is famed for its Dravidian-style Hindu temples. In Madurai, Meenakshi Amman Temple has high "gopuram" towers ornamented with colourful figures. On Pamban Island, Ramanathaswamy Temple is a pilgrimage site. The town of Kanyakumari, at India's southernmost tip, is the site of ritual sunrises. Capital Chennai is known for beaches and landmarks including 1644 colonial Fort St. George']
```

36) Write a Python program to read each row from a given csv file and print a list of strings.

Source code

```
import csv

with open('people.csv', 'r') as file:

    reader = csv.reader(file)

    for row in reader:

        print(row)
```

Output

```
['1', 'Eldon Base for stackable storage shelf, platinum', 'Muhammed MacIntyre', '3', '-213.25', '38.94', '35', 'Nunavut', 'Storage & Organization', '0.8']
['2', '1.7 Cubic Foot Compact "Cube" Office Refrigerators', 'Barry French', '293', '457.81', '208.16', '68.02', 'Nunavut', 'Appliances', '0.58']
['3', 'Cardinal Slant-D® Ring Binder, Heavy Gauge Vinyl', 'Barry French', '293', '46.71', '8.69', '2.99', 'Nunavut', 'Binders and Binder Accessories', '']
['4', 'R380', 'Clay Rozendal', '483', '1198.97', '195.99', '3.99', 'Nunavut', 'Telephones and Communication', '0.58']
['5', 'Holmes HEPA Air Purifier', 'Carlos Soltero', '515', '30.94', '21.78', '5.94', 'Nunavut', 'Appliances', '0.5']
['6', 'G.E. Longer-Life Indoor Recessed Floodlight Bulbs', 'Carlos Soltero', '515', '4.43', '6.64', '4.95', 'Nunavut', 'Office Furnishings', '0.37']
['7', 'Angle-D Binders with Locking Rings, Label Holders', 'Carl Jackson', '613', '-54.04', '7.3', '7.72', 'Nunavut', 'Binders and Binder Accessories', '']
['8', 'SAFCO Mobile Desk Side File, Wire Frame', 'Carl Jackson', '613', '127.70', '42.76', '6.22', 'Nunavut', 'Storage & Organization', '']
['9', 'SAFCO Commercial Wire Shelving, Black', 'Monica Federle', '643', '-695.26', '138.14', '35', 'Nunavut', 'Storage & Organization', '']
['10', 'Xerox 198', 'Dorothy Badders', '678', '-226.36', '4.98', '8.33', 'Nunavut', 'Paper', '0.38']
```