

## ✓ CLASS XI – PYTHON PRACTICAL LIST OF PROGRAMS 2025-26

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### ◆ Basic Programs & Conditional Statements

1. Write a Python program to print **“Hello World”**.
2. Write a Python program to input the user’s name and display **Welcome** along with the name.
3. Write a Python program to input a number and display it.
4. Write a Python program to input two numbers and display the **greater number**.
5. Write a Python program to display the **grade of a student** based on marks obtained.
6. Write a Python program to input three numbers and display the **greatest and smallest** among them.
7. Write a Python program to input **distance and time** and calculate speed.
8. Write a Python program to input **initial speed, acceleration and time** and calculate displacement.
9. Write a Python program to calculate **compound interest**.
10. Write a Python program to calculate the **area of a rectangle**.
11. Write a Python program to calculate the **area of a circle**.
12. Write a Python program to calculate the **percentage of a student** using marks of five subjects.
13. Write a Python program to convert **distance from feet to inches**.
14. Write a Python program to convert **temperature from Fahrenheit to Celsius**.
15. Write a Python program to calculate the **volume of a cylinder**.

### ◆ Arithmetic Operations & Loops

16. Write a Python program to perform **basic arithmetic operations** based on user’s choice.
17. Write a Python program to perform arithmetic operations **repeatedly until the user stops**.
18. Write a Python program to display the **multiplication table** of a given number.
19. Write a Python program to print numbers from **-8 to -3**.
20. Write a Python program to display numbers between **1 and 100 divisible by 7**.
21. Write a Python program to **reverse a number**.
22. Write a Python program to count the **frequency of a digit in a number**.
23. Write a Python program to calculate the **sum of first n natural numbers**.
24. Write a Python program to input the value of **x and n** and print the sum of the series:  $1 + x^1 + x^2 + x^3 + \dots + x^n$
25. Write a Python program to check whether a number is **prime or not**.
26. Write a Python program to calculate the **factorial** of a number.
27. Write a Python program to calculate the **GCD and LCM** of two numbers.
28. Write a Python program to generate the **Fibonacci series** up to n terms.
29. Write a Python program to calculate the **product of numbers** entered until the user stops.
30. Write a Python program to calculate the **sum of even and odd numbers** between given limits.

### ◆ Loop Patterns

31. Write a Python program to print numbers from **0 to 10 with step size 2**.
32. Write a Python program to display the **given number pattern**.
33. Write a Python program to print numbers from **1 to 9 in matrix form**.
34. Write a Python program to display **numbers in a triangular pattern**.
35. Write a Python program to display a **star pattern (triangle)**.
36. Write a Python program to display a **star pattern (inverted triangle)**.
37. Write a Python program to display **numbers in triangular pattern as shown**.

### ◆ Programs on Strings

38. Write a Python program to display the **alphabet pattern**.
39. Write a Python program to check whether a string is a **palindrome** (using slicing).
40. Write a Python program to check whether a string is a **palindrome without using slicing**.
41. Write a Python program to count **vowels, consonants, uppercase and lowercase letters** in a string.
42. Write a Python program to count **uppercase, lowercase, digits and special characters** without using built-in functions.

### ◆ Programs on Lists

43. Write a Python program to input names of students and store them in a **list**.
44. Write a Python program to find the **frequency of a number in a list**.
45. Write a Python program to find the frequency of an element in a list using **built-in functions**.

46. Write a Python program to **swap elements at even and odd positions** in a list.
47. Write a Python program to **divide even numbers by 2 and multiply odd numbers by 2** in a list.
48. Write a Python program to **search an element** in a list and display its index.
49. Write a Python program to create a new list containing **only even elements**.
50. Write a Python program to create a new list by **squaring even-position elements and cubing odd-position elements**.
51. Write a Python program to display the **frequency of each unique element** in a list.
52. Write a **menu-driven program** to perform different operations on a list.

### ◆ Programs on Tuples

53. Write a Python program to display the **minimum, maximum and average** of tuple elements.
54. Write a Python program to **traverse elements of a tuple**.
55. Write a Python program to perform **linear search on a tuple**.

### ◆ Programs on Dictionaries

56. Create a dictionary with the roll number, name and marks of n students in a class and display the names of students who have marks above 75.

1 - Write a Python program to print "Hello World".

```
print("Hello World!")
```

```
Hello World!
```

2 - Write a Python program to input the user's name and display Welcome along with the name.

```
a = input("Enter your name: ")
print("Welcome", a)
```

```
Enter your name: Ishita
Welcome Ishita
```

3 - Write a Python program to input a number and display it.

```
r = int(input("Enter the number "))
print("The number is", r)
```

```
Enter the number 45
The number is 45
```

4 - Write a Python program to input two numbers and display the greater number.

```
a = int(input("Enter number one"))
b = int(input("Enter number two"))
if a > b:
    print(a, "is greater")
else:
    print(b, "is greater")
```

```
Enter number one20
Enter number two15
20 is greater
```

5 - Write a Python program to display the grade of a student based on the marks obtained.

```
s = int(input("Marks obtained by student"))
if s >= 90 and s <= 100:
    print("Grade A")
elif s >= 75 and s <= 89:
    print("Grade B")
elif s >= 50 and s <= 74:
    print("Grade C")
else:
    print("Grade D")
```

```
Marks obtained by student94
Grade A
```

6 - Write a Python program to input three numbers and display the greatest and the smallest among them.

```

a = int(input("Enter number 1 "))
b = int(input("Enter number 2 "))
c = int(input("Enter number 3 "))
if a > b and a > c:
    print(a," is greatest")
elif b > a and b > c:
    print(b, " is greatest")
else:
    print(c, " is greatest")
if a < b and a < c:
    print(a," is smallest");
elif b < a and b < c:
    print(b," is smallest");
else:
    print(c," is smallest");

```

```

Enter number 1 44
Enter number 2 89
Enter number 3 34
89 is greatest
34 is smallest

```

7 - Write a Python program to input distance and time and calculate speed.

```

dis = int(input("Enter the distance in meter"))
tm = int(input("Enter the time taken to cover the distance in seconds"))
print("Speed is", dis/tm, "m/s")

```

```

Enter the distance in meter876
Enter the time taken to cover the distance in seconds778
Speed is 1.1259640102827764 m/s

```

8 - Write a Python program to input initial speed, acceleration, and time, and calculate displacement.

```

u = int(input("Enter the initial speed in m/s"))
t = int(input("Enter the time taken in seconds"))
a = int(input("Enter the acceleration m/s^2"))
print("Displacement is", u*t + (a*t**2)/2)

```

```

Enter the initial speed in m/s650
Enter the time taken in seconds8000
Enter the acceleration m/s^28
Displacement is 261200000.0

```

9 - Write a Python program to calculate the compound amount using principal, rate of interest, number of times interest is compounded per year, and time period.

```

p = float(input("Enter the principal amount"))
r = float(input("Enter the interest rate"))
n = float(input("Enter the number of times interest is compounded per year"))
t = float(input("Enter the time period"))
a = p * (1 + (r/100)/n) ** (n * t)
ci = a - p
print("The compound interest is", ci)

```

```

Enter the principal amount7000
Enter the interest rate7
Enter the number of times interest is compounded per year2
Enter the time period6
The compound interest is 3577.4806014245223

```

10 - Write a Python program to input the length and breadth of a rectangle and calculate its area.

```

l = float(input("Enter the length"))
b = float(input("Enter the breadth"))
print("The area of Rectangle is", l * b)

```

```

Enter the length6
Enter the breadth4
The area of Rectangle is 24.0

```

11 - Write a Python program to input the radius of a circle and calculate its area.

```
r = float(input("Enter the radius"))
print("Area of the circle is", 22 / 7 * r**2)
```

```
Enter the radius6
Area of the circle is 113.14285714285714
```

12 - Write a Python program to input the name of a student and marks obtained in five subjects and calculate the percentage.

```
nm = input("Enter the name of student: ")
a = float(input("Enter marks in Maths: "))
b = float(input("Enter marks in English: "))
c = float(input("Enter marks in Hindi: "))
d = float(input("Enter marks in Social Science: "))
e = float(input("Enter marks in Sanskrit: "))
total = 500
print("Percentage of", nm, "is", (a + b + c + d + e)/total * 100)
```

```
Enter the name of student: Ishita
Enter marks in Maths: 88
Enter marks in English: 95
Enter marks in Hindi: 67
Enter marks in Social Science: 70
Enter marks in Sanskrit: 55
Percentage of Ishita is 75.0
```

13 - Write a Python program to convert distance from feet to inches.

```
k = float(input("Enter the distance covered in feet"))
print(12 * k, "Inches")
```

```
Enter the distance covered in feet87
1044.0 Inches
```

14 - Write a Python program to input temperature in Fahrenheit and convert it into Celsius.

```
k = float(input("Temperature in Fahrenheit"))
print("Temperature in degree Celsius will be", 5 / 9 * (k - 32))
```

```
Temperature in Fahrenheit99
Temperature in degree Celsius will be 37.22222222222222
```

15 - Write a Python program to input the radius and height of a cylinder and calculate its volume.

```
r = float(input("Enter the radius of cylinder"))
h = float(input("Enter the height of cylinder"))
print("Volume of cylinder is", 22/7 * r**2 * h)
```

```
Enter the radius of cylinder7
Enter the height of cylinder9
Volume of cylinder is 1386.0
```

16 - Write a Python program to perform basic arithmetic operations based on the user's choice.

```
s = input("The operation you want to do")
x = float(input("First number"))
y = float(input("Second number"))
if s == "+":
    print("The answer of operation is", x + y)
elif s == "-":
    print("The answer of operation is", x - y)
elif s == "*":
    print("The answer of operation is", x * y)
elif s == "/":
    print("The answer of operation is", x / y)
elif s == "%":
    print("The answer of operation is", x % y)
elif s == "//":
    print("The answer of operation is", x // y)
elif s == "**":
    print("The answer of operation is", x**y)
else:
    print("Invalid operation")
```

```
The operation you want to do**
First number4
Second number3
The answer of operation is 64.0
```

17 - Write a Python program to perform arithmetic operations repeatedly until the user chooses to stop.

```
while True:
    s = input("The operation you want to do")
    x = float(input("First number"))
    y = float(input("Second number"))
    if s == "+":
        print("The answer of operation is", x + y)
    elif s == "-":
        print("The answer of operation is", x - y)
    elif s == "*":
        print("The answer of operation is", x * y)
    elif s == "/":
        print("The answer of operation is", x / y)
    elif s == "%":
        print("The answer of operation is", x % y)
    elif s == "//":
        print("The answer of operation is", x // y)
    else:
        print("The answer of operation is", x**y)

    k = input("Do you want to continue Y/N")
    if k == "N" or k == "n":
        print("ok")
        break;
```

```
The operation you want to do*
First number78
Second number55
The answer of operation is 4290.0
Do you want to continue Y/Ny
The operation you want to do//
First number7
Second number3
The answer of operation is 2.0
Do you want to continue Y/Nn
ok
```

18 - Write a Python program to display the multiplication table of a given number.

```
n = int(input("Enter the number whose multiplication table is to be printed"))
k = 1;
while True:
    print(n, 'X', k, '=', n * k)
    k += 1
    if k == 11:
        break
```

```
Enter the number whose multiplication table is to be printed8
8 X 1 = 8
8 X 2 = 16
8 X 3 = 24
8 X 4 = 32
8 X 5 = 40
8 X 6 = 48
8 X 7 = 56
8 X 8 = 64
8 X 9 = 72
8 X 10 = 80
```

19 - Write a Python program to print numbers from -8 to -3.

```
for i in range(-8, -2):
    print(i,end=" ")
```

```
-8 -7 -6 -5 -4 -3
```

20 - Write a Python program to display all numbers between 1 and 100 that are divisible by 7.

```
for i in range(1, 101):
```

```

for i in range(1, 100):
    if i % 7 == 0:
        print(i,end=" ")

```

7 14 21 28 35 42 49 56 63 70 77 84 91 98

21 - Write a Python program to input a number and display its reverse.

```

a = int(input("Enter the number"))
b = 0
while a > 0:
    b = b * 10 + a % 10
    a //= 10
print(b)

```

Enter the number78942  
24987

22 - Write a Python program to input a number and a digit and count the number of times the digit occurs in the number.

```

a = int(input("Enter the number"))
b = int(input("Enter the digit"))
cnt = 0
while a > 0:
    if a % 10 == b:
        cnt += 1
    a //= 10
print("The frequency of", b, "digit in the number is", cnt, "times")

```

Enter the number67535753  
Enter the digit5  
The frequency of 5 digit in the number is 3 times

23 - Write a Python program to calculate the sum of the first n natural numbers using a while loop.

```

n = int(input("Enter the number upto which sum is to be calculated"))
s = 0
while n > 0:
    s += n
    n -= 1
print("The sum of numbers from 1 to n is", s)

```

Enter the number upto which sum is to be calculated6  
The sum of numbers from 1 to n is 21

24 Write a Python program to input the value of x and n and print the sum of the series:  $1 + x^1 + x^2 + x^3 + \dots + x^n$

```

x = int(input("Enter the number whose sum of power is to be printed: "))
n = int(input("Enter the maximum power of number you want: "))
s = 1
k = n
while n > 0:
    s += x ** n
    n -= 1
print("The sum of all powers of", x, "till", k, "is", s)

```

Enter the number whose sum of power is to be printed: 3  
Enter the maximum power of number you want: 5  
The sum of all powers of 3 till 5 is 364

25 - Write a Python program to check whether a given number is prime or not.

```

a = int(input("Enter the number"))
for i in range(2, a):
    if a % i == 0:
        print("The number is not prime")
        break
else:
    print("The number is prime")

```

Enter the number657  
The number is not prime

26 - Write a Python program to calculate the factorial of a given number.

```
n = int(input("Enter the number"))
p = 1
while n > 0:
    p *= n;
    n -= 1
print("The factorial of number is", p)
```

```
Enter the number6
The factorial of number is 720
```

OR

```
n = int(input("Enter the number"))
f = 1
for i in range(1, n+1):
    f *= i
print("The factorial of", n, "is", f)
```

```
Enter the number12
The factorial of 12 is 479001600
```

27 - Write a Python program to calculate the Greatest Common Divisor (GCD) and Least Common Multiple (LCM) of two integers.

```
a = int(input("Enter 1st number"))
b = int(input("Enter 2nd number"))
for i in range(1, min(a,b)+1):
    if a % i == 0 and b % i == 0:
        g = i
print("The greatest common divisor of", a, "and", b, "is", g)
print("The least common multiple of", a, "and", b, "is", (a * b)//g)
```

```
Enter 1st number12
Enter 2nd number16
The greatest common divisor of 12 and 16 is 4
The least common multiple of 12 and 16 is 48
```

28 - Write a Python program to generate the Fibonacci sequence up to n terms.

```
n = int(input("Enter the number of terms"))
a = 0
b = 1
print(a,end=" ")
print(b,end=" ")
for i in range(2, n):
    a, b = b, a + b
    print(b,end=" ")
```

```
Enter the number of terms12
0 1 1 2 3 5 8 13 21 34 55 89
```

29 - Write a Python program to calculate the product of numbers entered by the user until the user chooses to stop.

```
p = 1
while True:
    n = int(input("Enter the number"))
    p *= n
    s = input("Do you want to continue Y/N")
    if s.upper() == "N":
        break
print("The product of numbers is", p)
```

```
Enter the number7
Do you want to continue Y/Ny
Enter the number8
Do you want to continue Y/Ny
Enter the number3
Do you want to continue Y/Nn
The product of numbers is 168
```

30 - Write a Python program to input a lower limit and an upper limit and calculate the sum of even and odd numbers separately.

```

l = int(input("Enter the lower limit"))
u = int(input("Enter the upper limit"))
a = 0
b = 0
for i in range(1, u+1):
    if i % 2 == 0:
        a += i
    else:
        b += i
print("The sum of even numbers is", a)
print("The sum of odd numbers is", b)

```

```

Enter the lower limit7
Enter the upper limit50
The sum of even numbers is 638
The sum of odd numbers is 616

```

31 - Write a Python program to print numbers from 0 to 10 with a step size of 2.

```

for i in range(0,11,2):
    print(i,end=" ")

```

```

0 2 4 6 8 10

```

32 - Write a Python program to display the given number pattern.

```

for i in range(3):
    for j in range(3):
        print(i, j, " ",end='')
    print()

```

```

0 0 0 1 0 2
1 0 1 1 1 2
2 0 2 1 2 2

```

33 - Write a Python program to print numbers from 1 to 9 in the form of a matrix.

```

a = 1
for i in range(3):
    for j in range(3):
        print(a, " ", end='')
        a += 1;
    print()

```

```

1 2 3
4 5 6
7 8 9

```

34 - Write a Python program to display numbers in a triangular pattern.

```

for i in range(1,6):
    for j in range(i):
        print(i, " ", end="")
    print()

```

```

1
2 2
3 3 3
4 4 4 4
5 5 5 5 5

```

35 - Write a Python program to display a star pattern in the form of a triangle.

```

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

```

```

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

```

36 - Write a Python program to display a star pattern in the form of an inverted triangle.

```
for i in range(5):
    for j in range(5 - i):
        print("*", " ", end='')
    print()
```

```
* * * * *
* * * *
* * *
* *
*
```

37 - Write a Python program to display numbers in a triangular pattern as shown.

```
for i in range(1, 6):
    for j in range(1, 7-i):
        print(j, " ", end='')
    print()
```

```
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
```

## ✓ Programs on Strings

38 - Write a Python program to display the given alphabet pattern.

```
str1 = "ABCDE"
l = len(str1)
for i in range (1,l):
    print(str1[:i])
```

```
A
AB
ABC
ABCD
```

39 - Write a Python program to check whether a given string is a palindrome.

```
st = input("Enter the string ")
st=st.lower()
if st == st[::-1]:
    print("It is a palindrome")
else:
    print("It is not a palindrome")
```

```
Enter the string Madam
It is a palindrome
```

40 - Write a Python program to check whether a given string is a palindrome without using slicing.

```
rev = ""
st = input("Enter the string: ")
tp = st
l = len(st)
while l > 0:
    rev = rev + tp[-1]
    tp = tp[:-1]
    l = len(tp)
if rev == st:
    print("It is a palindrome")
else:
    print("It is not a palindrome")
```

```
Enter the string: water
It is not a palindrome
```

OR

```

s = input("Enter the string: ")
n = len(s)
for i in range(0, n//2):
    if s[i] != s[n-i-1]:
        print("Not a palindrome")
        break;
else:
    print("It is a palindrome")

```

```

Enter the string: rotator
It is a palindrome

```

41 - Write a Python program to input a string and count the number of vowels, consonants, uppercase letters, and lowercase letters.

```

s = input("Enter the string ")
c = 0
v = 0
u = 0
l = 0
for i in s:
    if i.isupper():
        u += 1
    if i.islower():
        l += 1
    if i.isalpha():
        if i.lower() in "aeiou":
            v += 1
        else:
            c += 1
print("Number of vowels is", v)
print("Number of consonants is", c)
print("Number of uppercase letters is", u)
print("Number of lowercase letters is", l)

```

```

Enter the string The White Tiger
Number of vowels is 5
Number of consonants is 8
Number of uppercase letters is 3
Number of lowercase letters is 10

```

42 Write a Python program to count uppercase, lowercase, digits, and special characters of a string without using any built-in function.

```

s = input("Enter a string: ")
upper = lower = digit = special = 0
for ch in s:
    if 'A' <= ch <= 'Z':
        upper += 1
    elif 'a' <= ch <= 'z':
        lower += 1
    elif '0' <= ch <= '9':
        digit += 1
    else:
        special += 1
print("Uppercase letters:", upper)
print("Lowercase letters:", lower)
print("Digits:", digit)
print("Special characters:", special)

```

```

Enter a string: The 3 musketeers !!
Uppercase letters: 1
Lowercase letters: 12
Digits: 1
Special characters: 5

```

## ✓ Programs on List

43 - Write a Python program to input the names of students and store them in a list.

```

l = []
while True:
    name = input("Enter the name of student")

```

```

l.append(name)
s = input("Do you want to continue Y/N")
if s.upper() == "N":
    break
print(l);

```

```

Enter the name of studentIshita
Do you want to continue Y/NY
Enter the name of studentDamini
Do you want to continue Y/Nn
['Ishita', 'Damini']

```

44 - Write a Python program to input a list and a number and find the frequency of the number in the list.

```

l = eval(input("Enter the list"))
k = int(input("Enter the number"))
cnt = 0
for i in l:
    if i == k:
        cnt += 1
print("The frequency of", k, "in list is", cnt)

```

```

Enter the list[5,3,4,5,6,7,8,4,5]
Enter the number4
The frequency of 4 in list is 2

```

45 - Write a Python program to find the frequency of a given element in a list using built-in functions.

```

l = eval(input("Enter the list"))
k = int(input("Enter the number"))
print("The frequency of", k, "in list is", l.count(k))

```

```

Enter the list[4,5,6,4,3,2,6,8,4]
Enter the number4
The frequency of 4 in list is 3

```

46 - Write a Python program to swap elements using temporary variable OR using tuple unpacking at even and odd positions in a list.

```

l = eval(input("Enter the list"))
for i in range(0, len(l), 2):
    s = l[i]
    l[i] = l[i+1]
    l[i+1] = s
print("The new list is", l)

```

```

Enter the list[6,4,2,4,9,0,6,3]
The new list is [4, 6, 4, 2, 0, 9, 3, 6]

```

OR

```

l = eval(input("Enter the list"))
for i in range(0, len(l), 2):
    l[i], l[i+1] = l[i+1], l[i]
print("The new list is", l)

```

```

Enter the list[7,3,1,5,4,9,5,2]
The new list is [3, 7, 5, 1, 9, 4, 2, 5]

```

47 - Write a Python program to divide even numbers by 2 and multiply odd numbers by 2 in a list.

```

l = eval(input("Enter the list"))
for i in range(0, len(l)):
    if l[i] % 2 == 0:
        l[i] = l[i] // 2
    else:
        l[i] = l[i] * 2
print("The modified list is", l)

```

```

Enter the list[6,2,8,4,1,3,2,5]
The modified list is [3, 1, 4, 2, 2, 6, 1, 10]

```

48 - Write a Python program to search for an element in a list and display its index if found.

```

l = eval(input("Enter the list"))
k = int(input("Enter the number"))
for i in range(0, len(l)):
    if l[i] == k:
        print("The number is present at index", i)
        break
    else:
        print("The number is not present in the list")

```

```

Enter the list[6,4,2,9,8,1]
Enter the number8
The number is present at index 4

```

49 - Write a Python program to create a new list containing only the even elements from a given list.

```

l = eval(input("Enter the list"))
a = []
for i in l:
    if i % 2 == 0:
        a.append(i)
print("The new list is", a)

```

```

Enter the list[7,3,5,4,5,1,2,3]
The new list is [4, 2]

```

50 - Write a Python program to create a new list by squaring elements at even positions and cubing elements at odd positions.

```

l = eval(input("Enter the list"))
a = []
for i in range(0, len(l)):
    if i % 2 == 0:
        a.append(l[i]**2)
    else:
        a.append(l[i]**3)
print("The new list is", a)

```

```

Enter the list[1,2,3,4,5,6,7,8]
The new list is [1, 8, 9, 64, 25, 216, 49, 512]

```

51 - Write a Python program to display the frequency of each unique element in a list.

```

l = eval(input("Enter the list"))
b = []
for i in l:
    if i not in b:
        print("Frequency of", i, "is", l.count(i))
        b.append(i)

```

```

Enter the list[1,1,4,4,4,7,7,7,2,2]
Frequency of 1 is 2
Frequency of 4 is 3
Frequency of 7 is 4
Frequency of 2 is 2

```

52. Write a Python program to perform different operations on a list using a menu.

```

l = []
while True:
    print("\nMENU")
    print("1. Add element")
    print("2. Delete element")
    print("3. Delete last element")
    print("4. Display list")
    print("5. Exit")
    ch = int(input("Enter your choice: "))
    if ch == 1:
        n = int(input("Enter elements to add: "))
        l.append(n)
        print("Element added")
    elif ch == 2:
        if len(l) == 0:
            print("List is empty")
        else:

```

```

        n = int(input("Enter the element to delete: "))
        if n in l:
            l.remove(n)
            print("Element deleted")
        else:
            print("Element not found")
    elif ch == 3:
        if len(l) == 0:
            print("List is empty")
        else:
            x = l.pop()
            print("Deleted element:", x)
    elif ch == 4:
        print("List elements are:", l)
    elif ch == 5:
        print("Exiting program")
        break
    else:
        print("Invalid choice")

```

```

MENU
1. Add element
2. Delete element
3. Delete last element
4. Display list
5. Exit
Enter your choice: 1
Enter elements to add: 5
Element added

```

```

MENU
1. Add element
2. Delete element
3. Delete last element
4. Display list
5. Exit
Enter your choice: 1
Enter elements to add: 4
Element added

```

```

MENU
1. Add element
2. Delete element
3. Delete last element
4. Display list
5. Exit
Enter your choice: 1
Enter elements to add: 8
Element added

```

```

MENU
1. Add element
2. Delete element
3. Delete last element
4. Display list
5. Exit
Enter your choice: 3
Deleted element: 8

```

```

MENU
1. Add element
2. Delete element
3. Delete last element
4. Display list
5. Exit
Enter your choice: 2
Enter the element to delete: 5
Element deleted

```

```

MENU
1. Add element
2. Delete element
3. Delete last element
4. Display list
5. Exit
Enter your choice: 4
List elements are: [4]

```

## ✓ Tuple

```

t = eval(input("Enter the tuple"))
mn = t[0]
mx = t[0]
sm = 0
for i in t:
    if mn > i:
        mn = i
    if mx < i:
        mx = i
    sm += i
print("Minimum element of the tuple is", mn)
print("Maximum element of the tuple is", mx)
print("Average of the tuple is", sm / len(t));

```

```

Enter the tuple[11,55,88,23,44,12]
Minimum element of the tuple is 11
Maximum element of the tuple is 88
Average of the tuple is 38.833333333333336

```

54 - Write a Python program to traverse the elements of a tuple.

```

t = eval(input("Enter the tuple"))
for i in range(0, len(t)):
    print(i, '-', t[i])

```

```

Enter the tuple[7,4,2,6,4,2]
0 - 7
1 - 4
2 - 2
3 - 6
4 - 4
5 - 2

```

55 - Write a Python program to perform linear search on a tuple.

```

t = eval(input("Enter the tuple"))
k = int(input("Enter the number"))
for i in range(0, len(t)):
    if t[i] == k:
        print("The number is present at index", i)
        break
else:
    print("The number is not present in the tuple")

```

```

Enter the tuple[7,4,5,3,2,6]
Enter the number5
The number is present at index 2

```

## Dictionary

56 - Write a Python program to create a dictionary with the roll number, name and marks of n students in a class and display the names of students who have marks above 75.

```

d = eval(input("Enter the name of student and marks obtained: "))
for i, j in d.items():
    for k, l in j.items():
        if l >= 75:
            print(k, end=" ")

```

```

Enter the name of student and marks obtained: {1 : {"Damini":78}, 2 : {"Shreya":75}, 3:{"Akash":67}}
Damini Shreya

```