

Certificate Course in Machine Learning using Python [6 Weeks]

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Exercises and Practice Problems in Python

Exercise and Practical Problems in Python (List, If and For Loop)

Q. Write a Python program to check whether a number is even or odd

```
number=int(input("Enter a Number:"))  
if(number%2==0):  
    print("Number is Even")  
else:  
    print("Number is odd")
```

Q. Write a Python program to swap two numbers

```
n1=int(input("Enter First Number:"))  
n2=int(input("Enter Second Number:"))  
print("Before swap:")  
print('n1=', n1,'and', 'n2=', n2)  
temp=n1  
n1=n2  
n2=temp  
print("After swap:")  
print('n1=', n1,'and', 'n2=', n2)
```

Q. Write a Python program to input age of three brothers and find youngest brother.

```
print(" Enter the age of 1st brother :")  
b1 = int(input())  
print("\n Enter the age of 2nd brother :")  
b2 = int(input())  
print("\n Enter the age of 3rd brother :")
```

```
b3 = int(input())
if (b1 < b2 and b1 < b3) :
    print("The 1st brother is youngest.")
elif (b2 < b1 and b2 < b3) :
    print("The 2nd brother is youngest.")
else :
    print("The 3rd brother is youngest.")
```

Q. Write a Python program to calculate Factorial of a given number

```
n=int(input("Enter First Number:"))
p=1
for i in range(1,n+1):
    p=p*i
print("Factorial is:",p)
```

Q. Write a Program to find whether a given number is prime or not

```
n=int(input("Enter First Number:"))
for i in range(2,n):
    if(n%i==0):
        print("It is not a prime number")
        break
else:
    print("It is a prime number")
```

Q. Create a list of 10 elements marks=[78,87,89,98,67,65,45,56,77,89]. Create another list of 5 elements. Write a Python program to append the new list at the end of the marks list.

```
marks=[78,87,89,98,67,65,45,56,77,89]
print("Old Marks:", marks)
new_list=[]
for i in range(5):
    i=int(input('List Member:'))
    marks.append(i)
print("Updated Marks:", marks)
```

Q. Write a Python program to interchange first and last element of list.

```
temp=marks[0]
marks[0]=marks[-1]
marks[-1]=temp
print(marks)
```

Q. Perform the following operations on marks list:

a. Insert new marks at index 7 and 10.

```
marks[7]=121
marks[10]=110
print(marks)
```

b. Remove the mark 98 from the list. Remove the element at index 8 and 13.

```
#Remove the mark 98 from the list.
marks.remove(98)
marks

#Remove the element at index 8 and 13.
marks.pop(8)
marks.pop(12)
marks
```

c. Remove all elements from the list.

```
marks.clear()
marks
```

Q. Write a Python program to count occurrences of an element in a list.

```
l=[12,23,34,56]
count=0
for i in l:
    count=count+1
print(count)
```

Q. Write a Python program to sum all elements of a list.

```
#Without using in-built function
l=[12,23,34,56]
s=0
```

```
for i in l:
    s=s+i

print(s)

#Using in-built function sum()

print(sum(l))
```

Q. Write a Python program to print only even numbers in a list.

```
l1=[12,23,34,56,46,19]
l2=[]

for i in l1:
    if(i%2==0):
        l2.append(i)

print("Old List:",l1)
print("Even Number List:",l2)
```

Q. Write a Python program to find average or mean of a list data.

```
l=[12,23,34,56]

sum=0

count=0

for i in l:
    sum=sum+i
    count=count+1

average=sum/count

print(average)
```

Q. Write a Python program to input some data from user and put that into list.

```
n=int(input("How many data in the list?"))

l=[]

for i in range(1,n+1):
    x=int(input("Enter the data:"))
    l.append(x)

print(l)
```

Q. Write a Python program to find maximum and minimum element of a list.

#Without using in-built function

```
l=[12,34,56,23]

maxi=l[0]

for i in l:

    if(i>maxi):

        maxi=i

print('Maximum Element:', maxi)
```

```
mini=l[0]

for i in l:

    if(i<mini):

        mini=i

print('Minimum Element:', mini)
```

#Using max() and min()

```
print("Maximum Element:", max(l))

print("Minimum Element:", min(l))
```

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PREVIOUS ACTIVITY

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NEXT ACTIVITY

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