

If Statements

Check String Length:

```
str=input("Enter a sentence : ")
if len(str)>10:
    print(f'{str} is a --> long sentence with length of{len(str)}')
```

My name is mariam is a --> long sentence with length of17

Check Membership in List

```
programmingLang= ['java','Js','python','C','C++','C#']
if 'python' in programmingLang:
    print("you are accepted in the intern")
```

you are accepted in the intern

Check if Variable is Not None:

```
var1=None
var2=2
if(var1 == None):
    print("None element")
```

None element

If-Else Statements

Check Even or Odd Number

```
num=float(input("Enter a Number: "))
if(num%2==0):
    print(f"{num} is even")
else:
    print(f"{num} is odd")
```

5.0 is odd

Age Verification

```
age=int(input("Enter your age : "))
if(age>=18):
    print("You are alloed to vote")
else:
    print("you are not allowed to vote")
```

You are alloed to vote

Check for Empty List:

```
myList=[]
if len(myList)==0:
    print("Empty List")
else:
    print(f"List has{len(myList)} elemnts")
Empty List
```

Temperature Check:

```
temp= float(input("Enter water Temperature in celsius : "))
if temp <=0:
    print("water is ice")
else:
    print("may be liquied or water vapor")
may be liquied or water vapor
```

If-Elif-Else Statements

Grading System

```
grade = int(input("enter course grade: "))
if grade>=90 :
    print("A+")
elif 90>grade>=85:
    print("A")
elif 85>grade>=80:
    print("B+")
elif 80>grade>=75:
    print("B")
elif 75>grade>=70:
    print("C+")
elif 70>grade>=65:
    print("C")
elif 65>grade>=60:
    print("D+")
elif 60>grade>=55:
    print("D")
else:
    print("F")
```

F

Traffic Light Signal

```
color="Red"
if color=="Red":
    print("Stop")
elif color=="Yellow":
    print("Wait")
else:
    print("Go")
```

Stop

Classify Age Group

```
age= int(input("Enter your age : "))
if age<=1:
    print("baby")
elif 3>=age>1:
    print("toddler")
elif 12>=age>3:
    print("child")
elif 19>=age>12:
    print("teenager")
elif 24>=age>19:
    print("young people")
else:
    print("Adults")
```

young people

Check Temperature Range

```
temp= float(input("Enter water Temperature in celsius : "))
if temp <=0:
    print("water is ice")
elif 0<temp<100:
    print("liquid water")
else:
    print("boiling water ")
```

boiling water

Nested If Statements

Permission Check with Age

```

age = int(input("Enter your age: "))
if age>=18:
    if age == 18:
        print("You are not allowed to vote or drink")
    elif 20>=age>18:
        print("you are allowed to vote but not drink")
    else:
        print("you are allowed to both voting and drnking")
else:
    print("not Adult")

```

you are allowed to vote but not drink

Nested Condition for Shopping

```

item = 'alcohol'
itemNum=10
age= int(input("Enter your age: "))
money= 5.0

if item=='alcohol':
    if age>21:
        print('you can buy the drink ')
        if money==5.0:
            itemNum-=1

    else:
        print("NOT allowed to buy call the police☺")

```

NOT allowed to buy call the police☺

Nested Temperature and Time Check

```

temp = float(input("Enter temperature in °C: "))
hour = int(input("Enter current hour (0-23): "))

if temp < 10:
    if 6 <= hour < 12:
        print("Wear a heavy jacket.")
    elif hour >= 20 or hour < 6:
        print("Stay inside, it's too cold.")

elif 10 <= temp <= 25:
    if 12 <= hour < 18:
        print("Perfect time for a walk.")

```

```
else:
    if 12 <= hour < 18:
        print("It's hot, drink water.")
    elif 20 <= hour <= 23:
        print("It's warm at night, open windows.")
```

Perfect time for a walk.

Bank Account Balance Check

```
balance = float(input("Enter your current bank balance: "))
withdraw_amount = float(input("Enter the amount you want to withdraw: "))

if balance > 0:
    if withdraw_amount <= balance:
        print("Withdrawal approved.")
    else:
        print("Insufficient funds. Withdrawal denied.")
else:
    print("Your account is empty or overdrawn. Please deposit money first.")
```

Withdrawal approved.