try-except

- Generally pythonis a squencial process
- which means if you got error the compiler will not excutes other statements
- there is a situation even though if you get error at particular line.
- Complier should excute some part of the code.
- This is possible by using try and except
- we have two blocks
  - try block
    - original code will run under try block
  - except block
    - if any error comes it redirect to except block

In [3]:
```
a=10
b=0
a/b
print("hello")
```

```
---------------------------------------------------------------------------
ZeroDivisionError                         Traceback (most recent call last)
Cell In[3], line 3
      1 a=10
      2 b=0
----> 3 a/b
      4 print("hello")

ZeroDivisionError: division by zero
```

Case-1

- whenever we got the error in try block the complier excutes the statements of except block

In [1]:
```
try:
    a=10
    b=0
    a/b
except:
    print("hello")
```

```
hello
```

In [2]:
```
try:
    a=10
    b=0
    print("the value is:",a)
    a/b
    print("we get the error")
```

```
except:
    print("hello")
```

```
the value is: 10
hello
```

Case-2

- if there is no error in the try block
- compiler will not excutes the except block statements

In [6]:
```
try:
    a=10
    b=20
    c=a+b
    print(f"{a}+{b} = {c}")
except:
    print("Hello")
```

```
10+20 = 30
```

In [9]:
```
print("hai")
print("helo")
try:
    a=10
    b=50
    c=a+b
    print(f" the addition of {a} and{b} is {c}")
except:
    print("error")
    print("check code")

print("bye")
```

```
hai
helo
 the addition of 10 and50 is 60
bye
```

In [28]:
```
try:
    a=int(input("enter a number"))
    b=eval(input("enter a number"))
    add=a/b
    print(f"add is {add}" )
except Exception as e:
    print(e)
```

```
division by zero
```

In [29]:
```
import random
num=random.randint(10,100)
try:
    if num%2==0:
        print(f" the {num}number is even")
    else:
        print(f" The {num} number is odd")
except Exception as e:
    print(e)
```

```
 the 62number is even
```

In [31]:
```
print(1)
print(2)

try:
    if 100>10:
        print("sruthi")
        print("bye")
    else:
        print("Hello")
        print("raju")
except Exception as e:
    print(e)
```

```
1
2
sruthi
bye
```

In [53]:
```
try:
    print(1)
    print(2)

    if 100>10:
        print("sruthi")
        print("bye")
    print("hai")

    print("Hello")
    print("raju")
except Exception as e:
    print(e)
```

```
1
2
sruthi
bye
hai
Hello
raju
```

In [33]:
```
print(1)
print(2)
########################
try:
    if 100<10:
        print("sruthi")
        print("bye")
    ################################
    print("Hello")
    print("raju")
    ############################
    if 1000>10:
        print("world")
except Exception as e:
    print(e)
```

```
1
2
Hello
raju
world
```

In [36]:
```
try:
    if 100>20:
        print("Hello")
    else:
        print("Bye")
except Exception as e:
    print(e)
```

```
Hello
```

In [40]:
```
print(1)
try:
    if 100>10:
        print("good")
        print(2)
        print(3)
    else:
        print("bad")
        print(4)
    print(5)
except Exception as e:
    print(e)
```

```
1
good
2
3
5
```

In [41]:
```
print(1)
try:
    if 100>10:
        print("good")
        print(2/0)

    else:
        print("bad")
        print(4)
    print(5)
except Exception as e:
    print(e)
```

```
1
good
division by zero
```

In [42]:
```
import random
num1=random.randint(1,10)
num2=eval(input("Enter a number"))
try:
    if num1==num2:
        print("you won")
    else:
```

```
        print("you lose")
except Exception as e:
    print(e)
```

```
you lose
```

In [18]:
```
print("hai")
print("helo")
try:
    a=eval(input("Enter a number:"))
    b=eval(input("enter a number:"))
    c=a+b
    print(f" the addition of {a} and{b} is {c}")
except:
    print("error")
    print("check code")
    n1=100
    n2=200
    if n1>n2:
         print("n1 is big")
    else:
        print("n2 is big")

print("bye")
```

```
hai
helo
error
check code
n2 is big
bye
```

In [43]:
```
#wap ask the user enter how much distance need to travel
#     ask the user enter the charge per km
#     if the distance >25 km
#       then print total charge
#    otherwise
#       print free ride
dis=eval(input("How much need to travel"))
charge=eval(input("enter charge per kms"))
total=dis*charge
try:
    if dis>=25:
        print(f"the total charge is {total}")
    else:
        print("free ride")
except Exception as e:
    print(e)
```

```
free ride
```

In [44]:
```
#wap ask the user enter a number
# if the number equal to 1 then print 1:if
# if the number equal to 2 then print 2:elif
# if the number equal to 3 then print 3:elif
# if the number equal to 4 then print 4:elif
# otherwise print bye:else
num=eval(input("Enter a number"))
try:
    if num==1:
        print("1")
```

```
    elif num==2:
        print("2")
    elif num==3:
        print("3")
    elif num==4:
        print("4")
    else:
        print("bye")
except Exception as e:
    print(e)
```

```
bye
```

In [45]:
```
try:
    if 19>4:                            # if first condition is true it only prin
        print("Hello")
        print("hai")
    elif 30>50:                         # if first condition is false then it pri
        print("Hai")
    elif 0:
        print("good job")              # if second also false it prints third sta
    else :                              # if all the above conditions are false i
        print("bye")
except Exception as e:
    print(e)
```

```
Hello
hai
```

In [46]:
```
marks_per=eval(input("Enter marks in percentage%"))
try:
    if marks_per>=90:
        print("A grade")
    elif marks_per>=70:
        print("B grade")
    elif marks_per>=50:
        print("C grade")
    elif marks_per>=35:
        print("D grade")
    else:
        print("Fail")
except Exception as e:
    print(e)
```

```
C grade
```

In [48]:
```
num1=eval(input("Enter a number1:"))
num2=eval(input("Enter a number2:"))
print("enter operation 1 for addition")
add=num1+num2
print("enter operation 2 for multiplication")
mul=num1*num2
print("enter operation 3 for  subtraction")
sub=num1-num2
print("enter operation 4 for division")
divi=num1/num2
operation=eval(input("enter the operation between 1 to 4"))
try:
    if operation==1:
           print(f"{num1} ,{num2} addition of two numbers is {add}")
    elif operation==2:
```

```
            print(f"{num1} ,{num2} subtraction of two numbers is {sub}")
    elif operation==3:
                print(f"{num1} ,{num2} multiplication of two numbers is {mul}")
    elif operation==4:
                  print(f"{num1} ,{num2} division of two numbers is {division}")
except Exception as e:
    print(e)
```

```
enter operation 1 for addition
enter operation 2 for multiplication
enter operation 3 for  subtraction
enter operation 4 for division
3 ,5 multiplication of two numbers is 15
```

In [49]:
```
gender=input("Enter the gender")
try:
    if gender=="male":
            age=eval(input("Enter the male  age"))
            if age>=30:
                  print("Middle age")
            else:
                  print("boy")
    elif gender=="female":
            age=eval(input("Enter the age"))
            if age>=30:
                  print("Middle age women")
            else:
                  print("girl")
    else:
         print("please enter valid gender")
except Exception as e:
    print(e)
```

```
Middle age
```

In [50]:
```
gender=input("Enter the gender")
try:
    if gender=="female":
        id=input("do you have an id card")
        if id=="yes":
            print("free ride")
        else:
            dist=eval(input("Enter how much distance you want to travel"))
            charge=eval(input("enter charge per km"))
            total=dist*charge
            print(f"the total charge is {total}")
    elif gender=="male":
            dist2=eval(input("How much distance you need to travel"))
            charge1=eval(input("enter charge per km"))
            total2=dist2*charge1
            print(f"the total charge is {total2}")
    else:
        print("valid gender")
except Exception as e:
    print(e)
```

```
free ride
```

In [51]:
```
num1=eval(input("Enter the number1:"))
num2=eval(input("enter the number2:"))
num3=eval(input("enter the number3:"))
```

```
try:
    if num1>num2 and num1>num2:
        print("num1 is big")
    elif num2>num3 :
        print("num2  is biggest")
    else:
        print("num3 is big")
except Exception as e:
        print(e)
```

```
num3 is big
```

In [ ]: