

Double-click (or enter) to edit

✓ CONDITIONALS STATEMENTS(NESTED)

```
wear = input()
color = input()
if wear == "shirt" :
    if(color == "red") :
        print("red match with light pants")
    elif(color == "white") :
        print("white matches with dark pants")
else :
    print("T-shirt matches with jeans")
```

```
⇒ bwdkjbcb
   vwhjvc
   T-shirt matches with jeans
```

```
device = input()
price = int(input())
if(device.lower() == "laptop") :
    if(price >= 15000 and price <= 30000) :
        print("we have i3 i5 with 11th gen and amd dual core 4500")
    elif(price > 30000 and price <=70000) :
        print("we have 12th gen i5 and 13th gen i3, have ryzen with RTX also ")
else :
    print("explore more in our shop")
```

```
⇒ hweghjbd
   12000
   explore more in our shop
```

✓ LOOPS

```
start = 10;
while(start > 0) :
    print("hello world")
    start = start - 1
```

```
⇒ hello world
   hello world
   hello world
   hello world
   hello world
   hello world
   hello world
   hello world
   hello world
   hello world
```

```
for _ in range(10):
    print("hello world")
```

```

→ hello world
hello world
hello world
hello world
hello world
hello world
hello world
hello world
hello world
hello world

```

```

# name = "Tanishak"
# for i in name:
#     if(i == "a") :
#         print("1", end="")
#     else :
#         print(i, end="")
name = "Tanishak"
i = 0
while(i < len(name)) :
    if(name[i] == "a") :
        print("1", end="")
    else :
        print(name[i], end="")
    i = i+1

```

```

→ T1nish1k

```

```

#prime or not
number = int(input("Enter a number: "))
val = True
# for i in range(2, number) : #go from 2 to number-1 by default
#     if(number == 2) :
#         print("prime")
#     if(number % i == 0):
#         val = False
#         break
# if(val == True):
#     print("prime")
# else :
#     print("not prime")
i = 2
while(i < number) :
    if(number % i == 0) :
        val = False
        break
    i = i + 1
# if(number == 2) :
#     print("prime")
elif(val) :
    print("Prime")
else :
    print("Not prime")

```

```

→ Enter a number: 10
Not prime

```

```

#sum of numbers in a range
sum = 0

```

```
for i in range(1, 101) :
    sum = sum + i
print("sum of number in range is: ", sum)
```

➞ sum of number in range is: 5050

```
#print even numbers
num = int(input("Enter a number: "))
for i in range(1, num+1) :
    if(i % 2 == 0) :
        print(i, end=" ")
```

➞ Enter a number: 10
2 4 6 8 10

```
#count number of digits in a number
number = 3458
count = 0
while(number > 0) :
    count = count + 1;
    number = number//10
print(count)
```

➞ 4

```
#calculate factorial
fact = 1
number = 5
for i in range(1, number+1) :
    fact = fact * i
print(fact)
```

➞ 120

```
#print multiplication table
number = 5;
for i in range(1, 11) :
    print(f"{number} * {i} = {number*i}")
```

➞ 5 * 1 = 5
5 * 2 = 10
5 * 3 = 15
5 * 4 = 20
5 * 5 = 25
5 * 6 = 30
5 * 7 = 35
5 * 8 = 40
5 * 9 = 45
5 * 10 = 50

```
import math
```

```
for i in range(2, 51):
    val = True
    for j in range(2, int(math.sqrt(i)) + 1):
        if i % j == 0:
            val = False
            break
    if val:
        print(i)
```

```

⇒ 2
3
5
7
11
13
17
19
23
29
31
37
41
43
47

```

```

my_string = "Tanishak"
length = len(my_string)
for i in range(length):
    print(my_string[length - i - 1], end="")

```

```

⇒ kahsinaT

```

```

#fibonacci
a = 0
b = 1
for i in range(10) :
    print(a)
    a, b = b, b+a

```

```

⇒ 0
1
1
2
3
5
8
13
21
34

```

```

#fibonacci
prev_val = 0
curr_val = 1
print(prev_val)
print(curr_val)
for i in range(0,8) :
    updated_val = prev_val + curr_val
    print(updated_val),
    prev_val = curr_val
    curr_val = updated_val

```

```

⇒ 0
1
1
2
3
5
8
13
21
34

```

✓ NESTED LOOPS

```
# *
# **
# ***
# ****
#print this pattern
for i in range(1, 6) :
    for j in range(i) :
        print("*", end="");
    print()
```



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

✓ WHILE LOOP

```
i = 6
while(i < 10) :
    i += 1
    print(i)
```



```
7
8
9
10
```

```
#countdown timer
i = 10
while(i > 0) :
    print(i)
    i -= 1
```



```
10
9
8
7
6
5
4
3
2
1
```

```
#sum of numbers
n = 10
sum = 0
while(n > 0) :
    sum += n
    n -= 1;
print(sum)
```



```
55
```

```
#user_input
user_input = input()
while(user_input != "quite") :
    user_input = input("enter quite to exit")
```

```
⇒ jbwjce
   enter quite to exitnwsdb hbc
   enter quite to exitquite
```

✓ LIST COMPREHENSEN

```
natural_numbers = [1,2,3,4,5,6,7,8]
[x for x in range(1,10) if x%2 == 0]
```

```
⇒ [2, 4, 6, 8]
```

```
names = ["Gaurav", "Saurav", "Sachine"]
[name.upper() for name in names]
```

```
⇒ ['GAURAV', 'SAURAV', 'SACHINE']
```

```
[[i,j,k] for i in range(3) for j in range(2) for k in range(2) if i+j+k == 2]
```

```
⇒ [[0, 1, 1], [1, 0, 1], [1, 1, 0], [2, 0, 0]]
```