

16/09/2025, Tuesday

⇒ fibonacci series using while

Sum of its 2 previous continuous values

Initialized from 0 & 1 ⇒ 0, 1, 1, 2, 3, 5, 8, 13, 21, 34

a, b = 0, 1

i = 0

while (i <= 10):

print(a)

s = a + b

a = b

b = s

i += 1

o/p =
0
1
1
2
3
5
8
13
21
34
55

s = a + b	s = 0 + 1	s = 1 + 1 = 2	s = 1 + 2 = 3
a = b	a = 1	a = 1	a = 2
b = s	b = 1	b = 2	b = 3
<u>a = 0</u>	print(a) = <u>1</u>	(a) = <u>1</u>	(a) = 2

s = 2 + 3 = 5	s = 3 + 5 = 8
a = 3	a = 5
b = 5	b = 8
(a) = 3	(a) = 5 (a) = 8

⇒ Swap 2 no.s

a = 5

b = 7

print(a, b)

a, b = b, a

print(a, b)

o/p 5 7
7 5

⇒ WAP to calculate the sum of digits without fn using while loop

like 257 = 2 + 5 + 7 = 14

257 // 10 = 25
25 % 10 = 7
25 // 10 = 2
2 % 10 = 5
2 // 10 = 0
0 % 10 = 2
257 % 10 = 7
257 // 10 = 25
25 % 10 = 5
25 // 10 = 2
2 % 10 = 2
2 // 10 = 0

num = int(input())

sum - digits = 0

while (num > 0):

digit = num % 10 # to get last digit

sum - digits += digit # to add digits to sum

num = num // 10 # to remove last digit

print("Sum of digits:", sum - digits)

257 > 0
257 % 10 = 7
0 + 7 = 7
257 // 10 = 25

25 > 0
25 % 10 = 5
7 + 5 = 12
25 // 10 = 2

2 > 0
2 % 10 = 2
12 + 2 = 14
2 // 10 = 0

O/p 257
Sum of digits: 14

(i) for loop inside for loop

for var1 in range(): # outer loop
for var2 in range(): # inner loop
of inner loop
of outer loop

To print tables

for i in range(1, 11, 1):
for j in range(1, 11, 1):
print(i * j, end = "\t")
print()

i = 1
j = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
i = 2
j = 1, 2, 3, ..., 10
i = 3
j = 1, 2, 3, ..., 10

	2		4	
2	4	6	8	10
	6		12	
4	8	12	16	20
	10		20	

for i in range(1, 6, 1):
for j in range(1, 6, 1):
if ((i * j) % 2 == 0):
print(i * j, end = "\t")
else:
print(" ", end = "\t")
print()