



Introduction to Programming: Python



By Odin Outsourcing



Motivational video

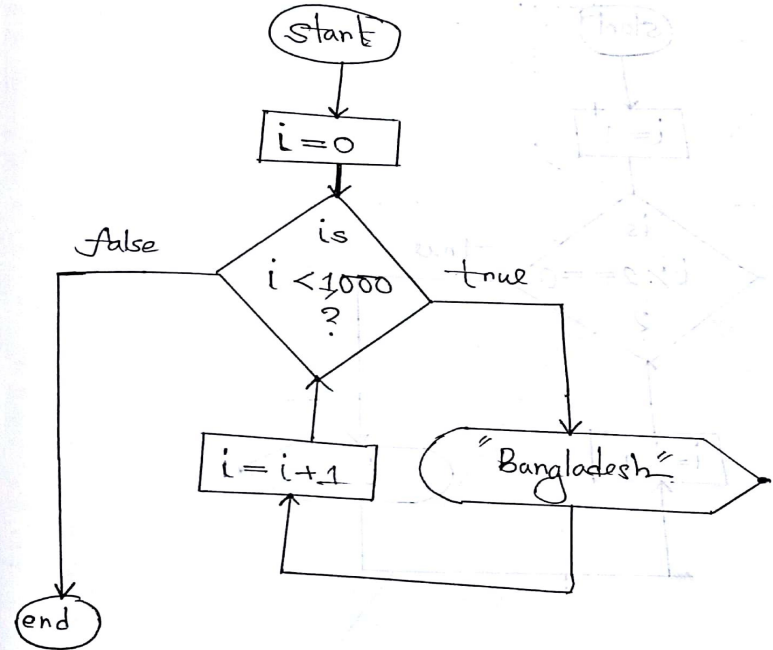
1. TEDx: <https://www.youtube.com/watch?v=xfBWk4nw440>
2. Intermediate Python: <https://www.youtube.com/watch?v=HGQBQPFzWKo>
3. Data Analysis: <https://www.youtube.com/watch?v=r-uOLxNrNk8&t=5183s>

Iteration Learning Resources

1. <https://www.learnpython.org/en/Loops>
2. <https://www.geeksforgeeks.org/loops-in-python>

Iteration-1

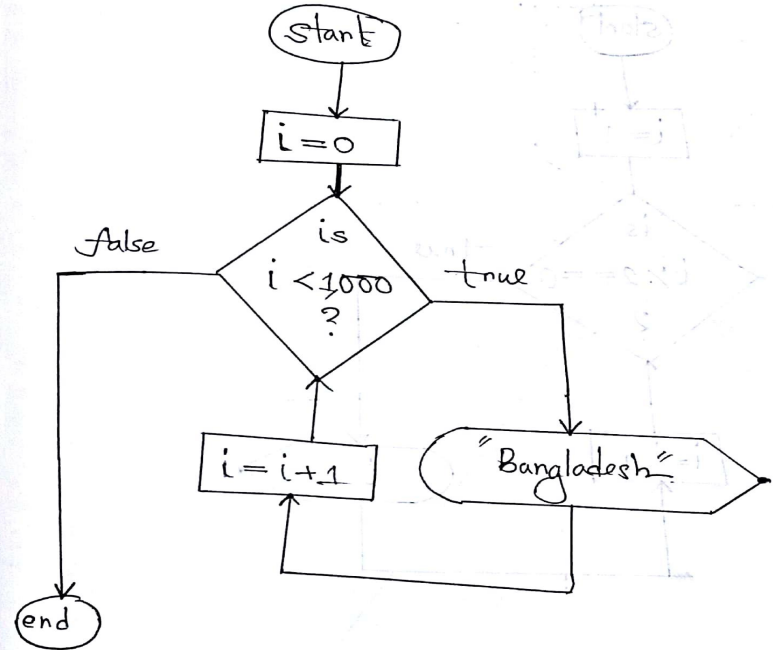
Draw a flowchart that will print "Bangladesh" 1000 times.



Iteration-1

```
i=0
while i<10:
    print('Bangladesh')
    i=i+1
```

Draw a flowchart that will print "Bangladesh" 1000 times.

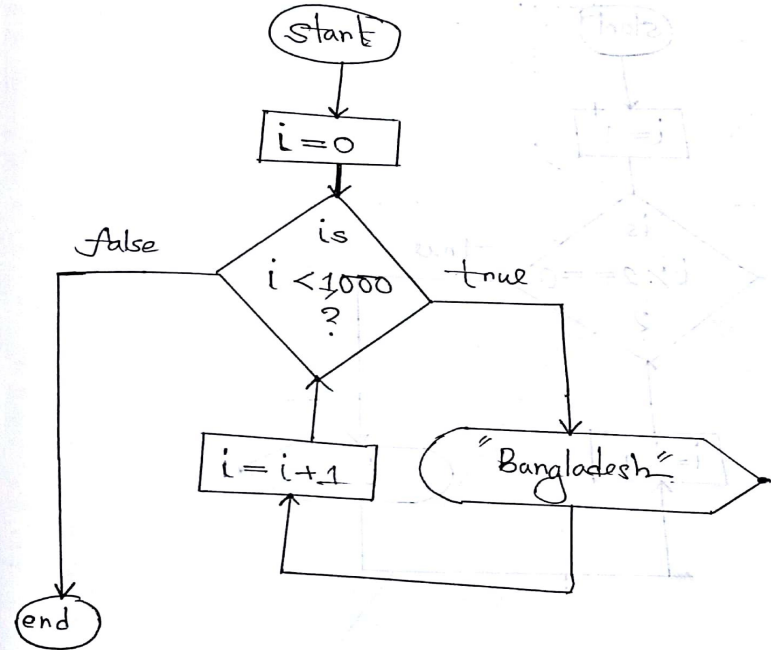


Iteration-1

```
i=0
while i<10:
    print('Bangladesh')
    i=i+1
```

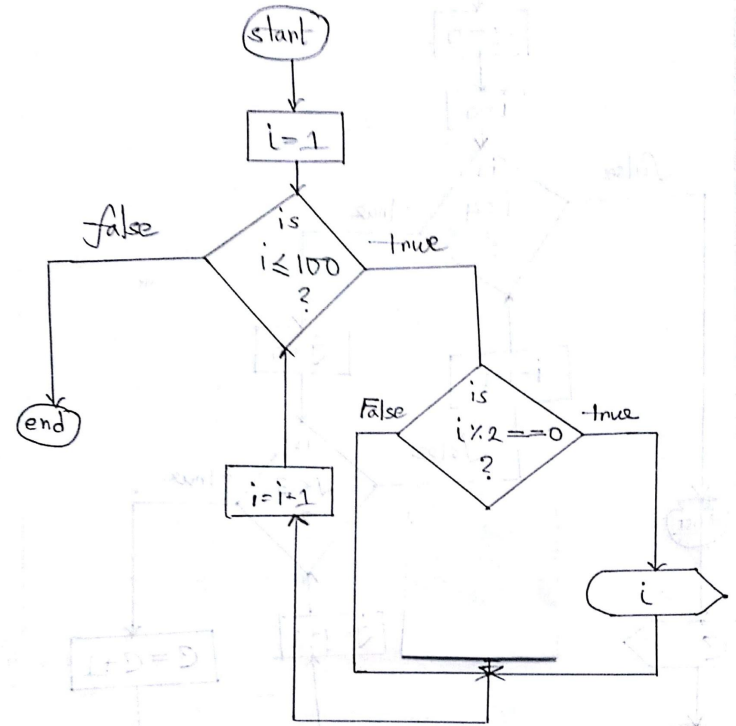
```
for i in range(0, 10):
    print('Bangladesh')
```

Draw a flowchart that will print "Bangladesh" 1000 times.



Iteration-2

Draw a flowchart that will print all even numbers between 1 to 100.



Iteration-2

```
i = 0
```

```
while i <= 100:  
    if i % 2 == 0:  
        print(i)  
    else:  
        None
```

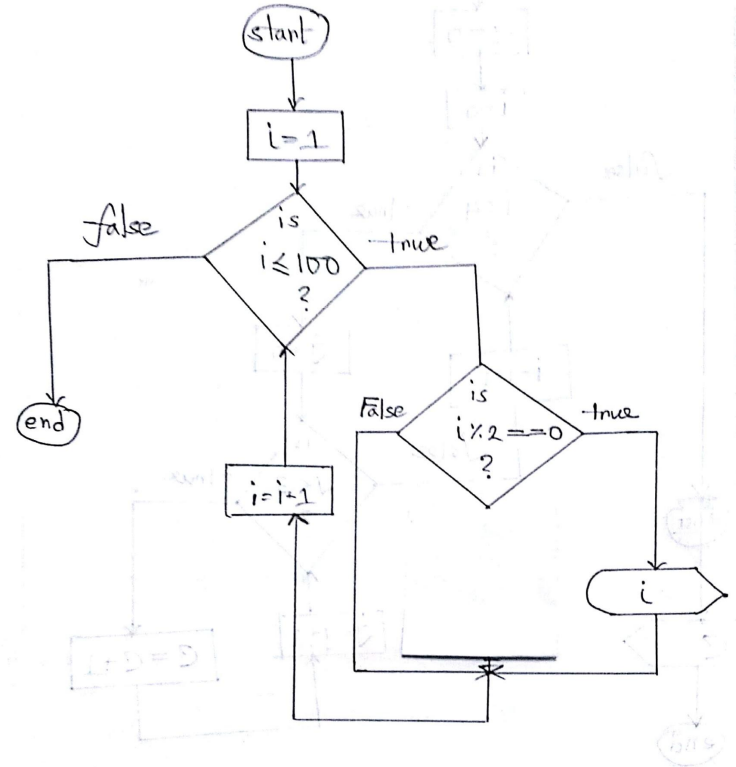
```
i = i + 1
```

```
i = 1
```

```
while i <= 100:  
    if i % 2 == 0:  
        print(i)
```

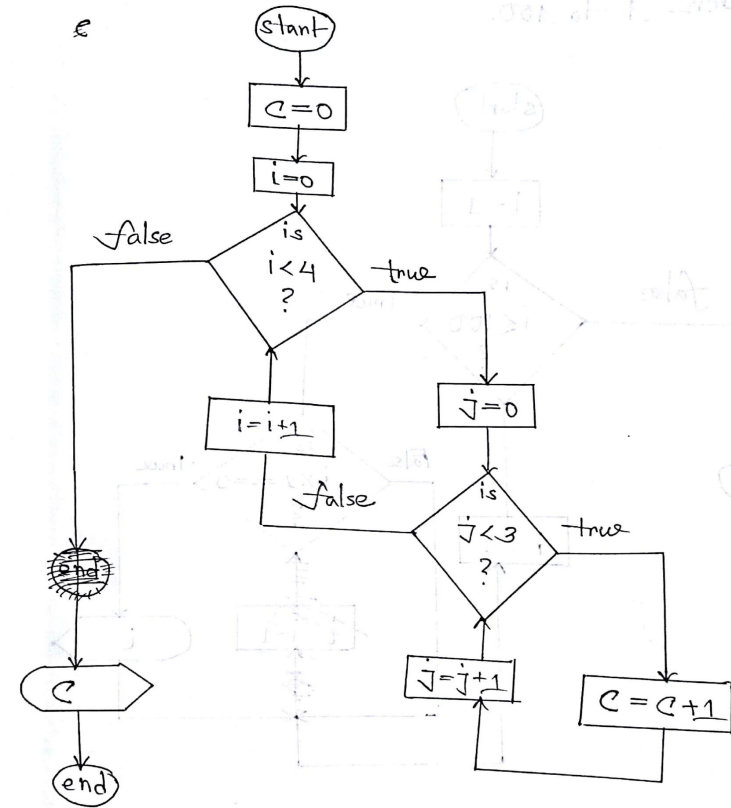
```
i = i + 1
```

Draw a flowchart that will print all even numbers between 1 to 100.



Iteration-3

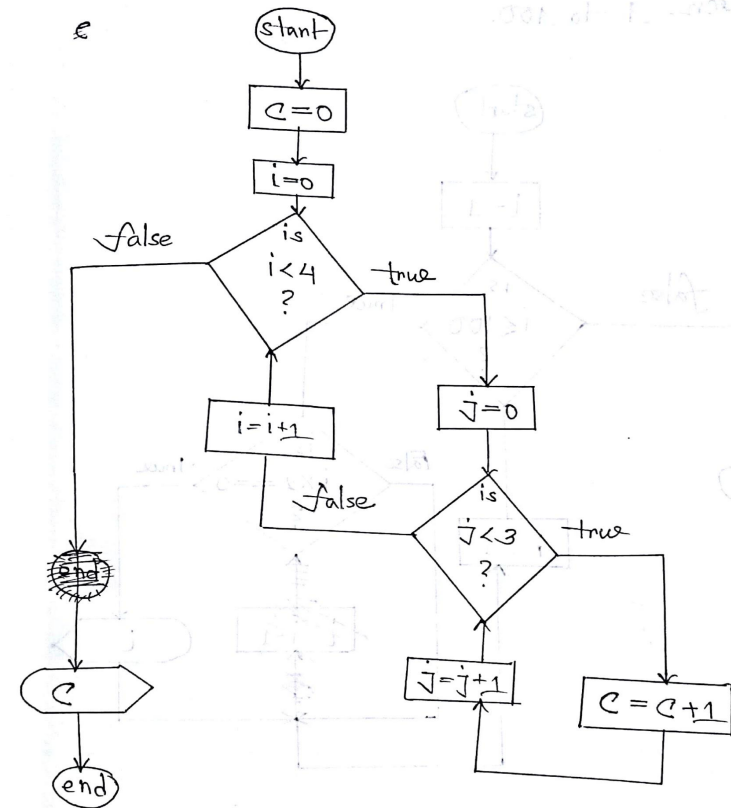
Find the value of C (trace/debug)



Iteration-3

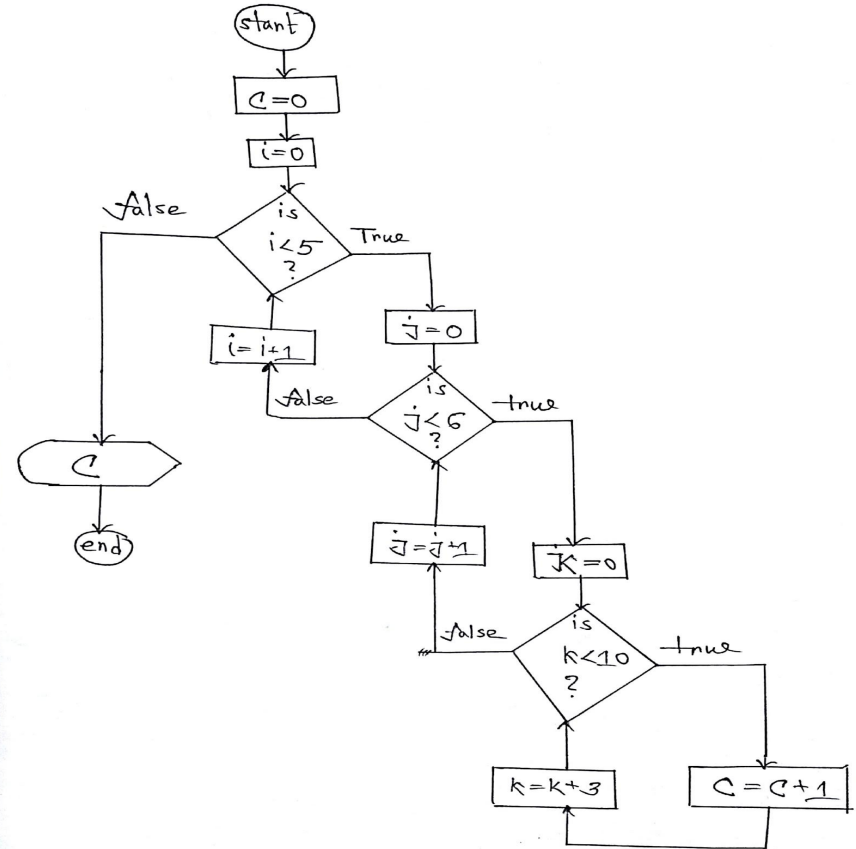
```
C=0  
  
i=0  
while i<4:  
    j=0  
    while j<3:  
        C=C+1  
        j = j+1  
    i = i+1  
  
print(C)
```

Find the value of C (trace/debug)



Iteration-4

Find the value of c (trace/debug)



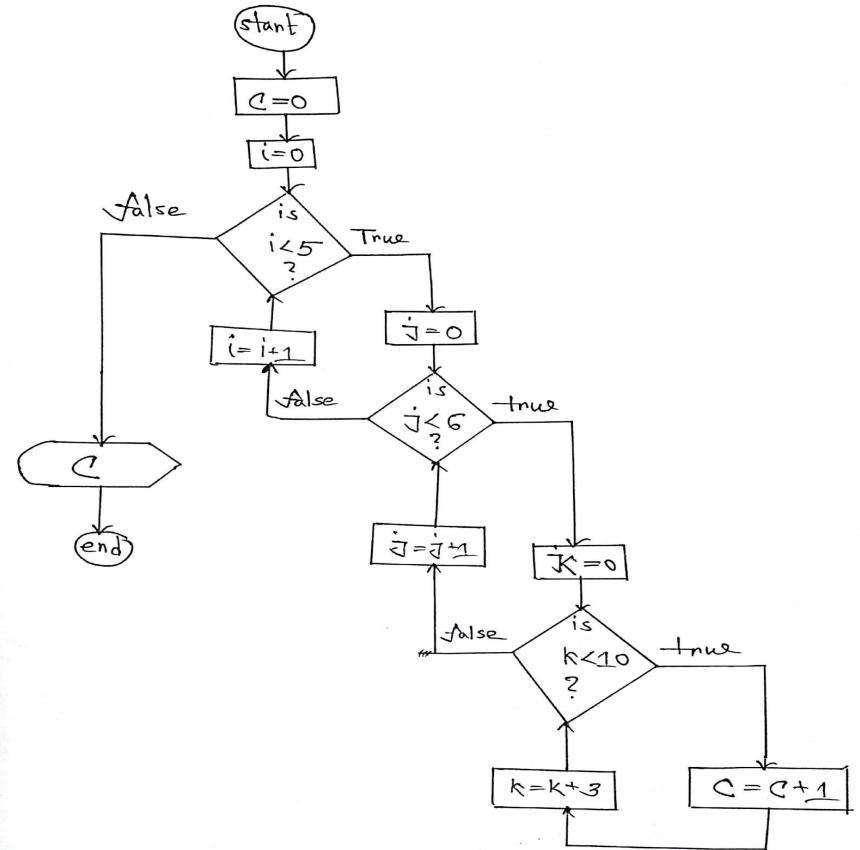
Iteration-4

```
C=0

i=0
while i<5:
    j=0
    while j<6:
        k=0
        while k<10:
            C=C+1
            k = k+1
        j=j+1
    i=i+1

print(C)
```

Find the value of C (trace/debug)



Problem Solving

1. Input a number, then reverse it. (1234 to 4321; 596254 to 452695).
2. Check a number whether it is palindrome or not.
3. Count the digit of a number.
4. Count the unique-digit of a number.
5. Take two inputs, base(b) and power(p) determine the value.
6. Fibonacci Series (0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89 ... upto N)
7. Print series: 3, 6, 9, 12, 15, 18, 21, 24, 27 upto N.
8. Print $3n+1$ series (if number is even then $n=n/2$, otherwise $n=3n+1$).
9. Factorial ($3! = 6$, $4! = 24$, $5! = 120$, $6! = 720$, $7! = 5040$)

Contract your instructor!

Find Me: <http://rafsanjani.pythonanywhere.com/contact>

Course Website: <https://mrzresearcharena.github.io/Big-Data-using-Python>



Thank you!