In [1]:

```
print("Hello")
```

```
Hello
```

In [2]:

```
#Area Of Circle
r=3.4
area=3.142*r*4
print("Area of Circle:",area)
```

```
Area of Circle: 42.731199999999994
```

In [3]:

```
#Swap
a,b=20,10
print("a=",a,"b=",b)
a,b=b,a
print("a=",a,"b=",b)
```

```
a= 20 b= 10
a= 10 b= 20
```

In [6]:

```
s="Hello"
type(s)
```

Out[6]:

```
str
```

In [8]:

```
x=int(input("Enter no 1 : "))
y=int(input("Enter no 2 : "))
if x>y :
    print(x,"is greater than",y)
elif y>x :
    print(y,"is greater than",x)
else :
    print("Both",x,"and",y,"are equal")
```

```
Enter no 1 : 3
Enter no 2 : 3
Both 3 and 3 are eqqual
```

In [9]:

```
sub1=int(input("Enter subject 1 marks: "))
sub2=int(input("Enter subject 2 marks: "))
sub3=int(input("Enter subject 3 marks: "))
per=((sub1+sub2+sub3)/300)*100
if per>80:
    print("A+")
elif per>60:
    print("A")
elif per>58:
    print("B")
elif per>40:
    print("C")
else:
    print("Fail")
```

```
Enter subject 1 marks: 34
Enter subject 2 marks: 34
Enter subject 3 marks: 54
C
```

In [10]:

```
i=1
while (i<=10):
    print(i)
    i+=1
else :
    print("i=",i)
    i=1
    print("i has became 1 again")
```

```
1
2
3
4
5
6
7
8
9
10
i= 11
i has became 1 again
```

In [11]:

```
# in single line
i=1
while(i<=10) : i+=1 ; print(i)
```

```
2
3
4
5
6
7
8
9
10
11
```

In [12]:

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

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

In [13]:

```
i=1
while(i<=10) : print(i) ; print("Hello") ; i+=1
```

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

In [17]:

```
# pass in while loop
i=1
while(i<=10):
    i+=1
    pass

print("i=",i)
```

```
i= 11
```

In [18]:

```
# range
r= range(1, 11)
print(r)
```

```
range(1, 11)
```

In [19]:

```
r=range(1,11)
print(r)
print(type(r))

for i in r:
    print(i)
```

```
range(1, 11)
<class 'range'>
1
2
3
4
5
6
7
8
9
10
```

In [20]:

```
r=range(1,6,2)
print(r)
print(type(r))

for i in r:
    print(i)
```

```
range(1, 6, 2)
<class 'range'>
1
3
5
```

In [21]:

```
r=range(8,0,-2)
print(r)
print(type(r))

for i in r:
    print(i)
```

```
range(8, 0, -2)
<class 'range'>
8
6
4
2
```

In [22]:

```
for i in range(20,220,20):
    print(i)
```

```
20
40
60
80
100
120
140
160
180
200
```

In [7]:

```
for i in range(10,110,10):
    print("i=",i)
    for j in range(1,3):
        print("j=",j)
    else:
        print("j has crossed 2")
else:
    print("i has crossed 100")
```

```
i= 10
j= 1
j= 2
j has crossed 2
i= 20
j= 1
j= 2
j has crossed 2
i= 30
j= 1
j= 2
j has crossed 2
i= 40
j= 1
j= 2
j has crossed 2
i= 50
j= 1
j= 2
j has crossed 2
i= 60
j= 1
j= 2
j has crossed 2
i= 70
j= 1
j= 2
j has crossed 2
i= 80
j= 1
j= 2
j has crossed 2
i= 90
j= 1
j= 2
j has crossed 2
i= 100
j= 1
j= 2
j has crossed 2
i has crossed 100
```

In [5]:

```
# 1 Display numbers from 1 to 100
# For
print("Number from 1 to 100")
for i in range(1,101):
    print(i, end=' ')
```

```
Number from 1 to 100
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56
57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
```

In [8]:

```
# 1 Display numbers from 1 to 100
# While
print("Number from 1 to 100")
i=1
while i<=100:
    print(i, end=' ')
    i=i+1
```

```
Number from 1 to 100
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56
57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
```

In [1]:

```
# 2 Display all even numbers from 1 to 100
# for
n1=1
n2=100
for n in range(n1,n2+1):
    if n%2==0:
        print(n,end=" ")
```

```
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100
```

In [2]:

```
# 3 Display all odd numbers from 1 to 100
# for
n1=1
n2=100
for n in range(n1,n2+1):
    if n%2!=0:
        print(n,end=" ")
```

```
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99
```

In [40]:

```
# 2 Display all even numbers from 200 to 300
# while
print("Number from 200 to 300")
max=300
min=200
while min<=max:
    if(min%2==0):
        print("{0}".format(min),end=" ")
    min=min+1
```

```
Number from 200 to 300
200 202 204 206 208 210 212 214 216 218 220 222 224 226 228 230 232 234 236 238 240 242 244 246 248 250 252 254 256 258 260 262 264 266 268 270 272 274 276 27
8 280 282 284 286 288 290 292 294 296 298 300
```

In [39]:

```
# 3 Display all odd numbers from 200 to 300
# while
print("Number from 200 to 300")
max=300
min=200
while min<=max:
    if(min%2!=0):
        print("{0}".format(min),end=" ")
    min=min+1
```

```
Number from 200 to 300
201 203 205 207 209 211 213 215 217 219 221 223 225 227 229 231 233 235 237 239 241 243 245 247 249 251 253 255 257 259 261 263 265 267 269 271 273 275 277 27
9 281 283 285 287 289 291 293 295 297 299
```

In [4]:

```
# 4 Display the seventh element between 400 to 500
#for
i=400
for i in range(400,500,7):
    print(i,end=" ")
```

```
400 407 414 421 428 435 442 449 456 463 470 477 484 491 498
```

In [9]:

```
# 4 Display the seventh element between 400 to 500
# while
i=400
while i<=495:
    i=i+7
    print(i,end=" ")
```

```
407 414 421 428 435 442 449 456 463 470 477 484 491 498
```

In [41]:

```
# 5 Find first 10 even numbers
# for
n=10
for n in range(1,n+1):
    if n%2==0:
        print(n)
```

```
2
4
6
8
10
```

In [49]:

```
# 5 Find first 10 even numbers
# while
num=10
n=1
while n<=num:
    if n%2==0:
        print(n)
    n=n+1
```

```
2
4
6
8
10
```

In [52]:

```
# 6 Find all prime numbers<100
# for
n1=1
n2=100
for n in range(n1,n2+1):
    if n>1:
        for i in range(2,n):
            if(n%i)==0:
                break
        else:
            print(n,end=" ")
```

```
2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97
```

In [2]:

```
# 7 Find all prime number from 400 till 300
print("Enter the number from 400 till 300 : ")
for n in range(400,300,-1):
    count=0
    for i in range(2,(n//2+1)):
        if(n%i==0):
            count=count+1
            break
    if (count==0):
        print(n,end=" ")
```

```
Enter the number from 400 till 300 :
397 389 383 379 373 367 359 353 349 347 337 331 317 313 311 307
```

In [34]:

```
# 8 Calculate factorial of a number
# for
n=int(input("Enter the element : "))
fact=1
for i in range(1,n+1):
    fact=fact*i
print(fact)
```

```
Enter the element : 7
5040
```

In [35]:

```
# 9 Count number of digits in any number
# while
n=int(input("Enter the number : "))
count=0
while(n>0):
    count=count+1
    n=n//10
print(count)
```

```
Enter the number : 654
3
```

In [36]:

```
# 10 Generate Fibonacci series. 0,1,1,2,3,5,8..k.where k<n. n is entered by user
# while
n=int(input("Enter the value : "))
a=0
b=1
sum=0
count=1
print("Fabonacci series : ",end=" ")
while(count<=n):
    print(sum,end=" ")
    count+=1
    a=b
    b=sum
    sum=a+b
print("\nend of logic")
```

```
Enter the value : 6
Fabonacci series :  0 1 1 2 3 5
end of logic
```

In [42]:

```
# 11  Generate Fibonacci series for first n terms
a=int(input("Enter the terms : "))
f=0
s=1
if a<=0:
    print("The requested series is : ",f)
else:
    print(f,s,end=" ")
    for x in range(2,a):
        next=f+s
        print(next,end=" ")
        f=s
        s=next
```

```
Enter the terms : 20
0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987 1597 2584 4181
```

In [37]:

```
# 12 Find sum of all digits of a number
# while
n=int(input("Enter a number : "))
sum=0
while(n>0):
    digit=n%10
    sum=sum+digit
    n=n//10
print("The total sum of digit is : ",sum)
```

```
Enter a number : 56
The total sum of digit is :  11
```

In [39]:

```
# 13 Find out if given number is palindrome or not
# while
n=int(input("Enter a number : "))
temp=n
rev=0
while(n>0):
    digit=n%10
    rev=rev*10+digit
    n=n//10
if(temp==rev):
    print("The number is palindrome")
else:
    print("The number is not palindrome")
```

```
Enter a number : 45
The number is not palindrome
```

In [ ]:

In [ ]: