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A. To print all prime number in a series

In [1]:
```
# Method 1 -Prime

num = int(input("Enter the number:  "))
if num > 1:
    for i in range(2,num):
        if  (num%i == 0):
            print("Not a prime number")
            break
    else:
        print("It is a prime number")
else:
    print("Give proper input")
```

```
Enter the number:  9
Not a prime number
```

In [2]:
```
# Method 2 -Prime
import math
num = int(input("Enter the number:  "))
if num > 1:
    for i in range(2,math.floor(math.sqrt(num))+1):
        if  (num%i == 0):
            print("Not a prime number")
            break
    else:
        print("It is a prime number")
else:
    print("Give proper input")
```

```
Enter the number:  11
It is a prime number
```

In [3]:
```
# Method 3 -Prime
num = int(input("Enter the number:  "))
if num > 1:
    for i in range(2,(num//2)+1):
        if  (num%i == 0):
            print("Not a prime number")
            break
    else:
        print("It is a prime number")
else:
    print("Give proper input")
```

```
Enter the number:  6
Not a prime number
```

In [4]:
```
# Prime nmbrs from 2 to n
n = int(input("Enter the number: "))
for n in range(2,n):
    if n > 1:
        for i in range(2,n):
            if (n % i) == 0:
                break
        else:
            print(n)
```

```
Enter the number: 28
2
3
5
7
11
13
17
19
23
```

In [5]:
```
#Prime nmbrs in given range
lower = int(input("Enter lower range: "))
upper = int(input("Enter upper range: "))

for num in range(lower,upper + 1):
    if num > 1:
        for i in range(2,num):
            if (num % i) == 0:
                break
        else:
            print(num)
```

```
Enter lower range: 1
Enter upper range: 23
2
3
5
7
11
13
17
19
23
```

B. To find largest among three numbers

In [7]:
```
a = int(input("Enter the 1st number: "))
b = int(input("Enter the 2nd number: "))
c = int(input("Enter the 3rd number: "))

if a>b and a>c:
    print("{} is the largest number".format(a))
elif b>a and b>c:
    print("{} is the largest number".format(b))
else:
    print("{} is the largest number".format(c))
```

```
Enter the 1st number: 67
Enter the 2nd number: 78
Enter the 3rd number: 89
89 is the largest number
```

C.To find HCF for two numbers, input by user

In [8]:
```
x = int(input("Enter the 1st number: "))
y = int(input("Enter the 2nd number: "))
x_c = x
while(x!=y):
    if(x > y):
        x = x-y
    else:
        y = y-x

print("The HCF of {} and {} is {}".format(x_c,y,x))
```

```
Enter the 1st number: 15
Enter the 2nd number: 25
The HCF of 15 and 5 is 5
```

In [9]:
```
# recursion method
def hcf(x,y):
    if y == 0:
        return x
    else:
        return hcf(x, x%y)

x = int(input("Enter the 1st number: "))
y = int(input("Enter the 2nd number: "))
print("The HCF of {} and {} is {}".format(x,y,hcf(x,y)))
```

```
Enter the 1st number: 200
Enter the 2nd number: 420
The HCF of 200 and 420 is 200
```