

Aim:

Write a sample code to find all the **prime numbers** between the limits.

[Hint: A **prime number** is a positive integer greater than 1 and which is divisible by 1 and itself only. A few prime numbers are 2, 3, 5, 7, 11, 13, 17, 19, etc.]

At the time of execution, the program should print the message on the console as:

Enter lower and upper limits :

For example, if the user gives the **input** as:

Enter lower and upper limits : 10 20

then the program should **print** the result as:

Prime numbers between 10 and 20 are : 11 13 17 19

Note: Do use the **printf()** function with **spaces** before and after the conversational string.

Source Code:

Program12.c

```
#include<stdio.h>
int main()
{
    int l,u,i,j,count=0;
    printf("Enter lower and upper limits : ");
    scanf("%d%d",&l,&u);
    printf("Prime numbers between %d and %d are : ",l,u);
    for(i=l;i<=u;i++)
    {
        count=0;
        for(j=2;j<=i;j++)
        {
            if(i % j==0)
            {
                count++;
            }
        }
        if(count==1)
        {
            printf("%d ",i);
        }
    }
}
```

Execution Results - All test cases have succeeded!

Test Case - 1

User Output
Enter lower and upper limits : 3 20
Prime numbers between 3 and 20 are : 3 5 7 11 13 17 19

Test Case - 2
User Output
Enter lower and upper limits : 11 29
Prime numbers between 11 and 29 are : 11 13 17 19 23 29