



new\*



```
1  #include<iostream>
2  using namespace std;
3  int main()
4  {
5      int t1=0, t2=1, nextTerm;
6      int num, limit, flag, choice;
7      char ch;
8      cout<<"Enter limit of series: ";
9      cin>>limit;
10     cout<<"Enter a number: ";
11     cin>>num;
12     do
13     {
14         cout<<"\n*****MENU*****";
15         cout<<"\n1.ODD number series: ";
16         cout<<"\n2.PRIME number series: ";
17         cout<<"\n3.SQUARE series: ";
18         cout<<"\n4.FIBBONACCI series: ";
19         cout<<"\n5.EXIT: ";
20         cout<<"\nEnter your choice: ";
21         cin>>choice;
22         switch(choice)
23         {
24             case 1:cout<<"\nSeries of ODD
numbers are: ";
25                 for(int i=1;i<=limit;i++)
26                 {
27                     if(num%2!=0)
28                     {
29                         cout<<num<<" ";
30                     }
31                     num++;
32                 }
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30         }
31         num++;
32     }
33     break;
34     case 2:cout<<"\nSeries of PRIME
numbers are: ";
35     while(num<=limit)
36     {
37         flag=0;
38         for(int i=2;i<=num/2;i++)
39         {
40             if(num%i==0)
41             {
42                 flag=1;
43                 break;
44             }
45         }
46         if(flag==0)
47         {
48             cout<<num<<" ";
49         }
50         num++;
51     }
52     break;
53     case 3:cout<<"\nSQUARE series
are: ";
54     for(int i=1;i<=limit;i++)
55     {
56         cout<<num*num<<" ";
57         num++;
58     }
59     break;
60     case 4:cout<<"\nFIBBONA
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59         break;
60         case 4:cout<<"\nFIBBONACCI
series are: ";
61         for(int i=1;i<=limit;i++)
62         {
63             if(i==1)
64             {
65                 cout<<" "<<t1<<" ";
66                 continue;
67             }
68             if(i==2)
69             {
70                 cout<<t2<<" ";
71                 continue;
72             }
73             nextTerm=t1+t2;
74             t1=t2;
75             t2=nextTerm;
76             cout<<nextTerm<<" ";
77         }
78         break;
79         case 5:exit(0);
80         default:cout<<"Invalid choice";
81     }
82     cout<<"\n\nWhether you want to
continue(Y/N)? ";
83     cin>>ch;
84 }
85 while(ch=='Y');
86 cout<<"\nProgram over";
87 return 0;
88 }
89
```

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Enter limit of series: 50  
Enter a number: 10

\*\*\*\*\*MENU\*\*\*\*\*

- 1.ODD number series:
- 2.PRIME number series:
- 3.SQUARE series:
- 4.FIBBONACCI series:
- 5.EXIT:

Enter your choice: 20  
Invalid choice

Whether you want to continue(Y/N)?: Y

\*\*\*\*\*MENU\*\*\*\*\*

- 1.ODD number series:
- 2.PRIME number series:
- 3.SQUARE series:
- 4.FIBBONACCI series:
- 5.EXIT:

Enter your choice: 5

[Program finished]

