

Lab Manual # 06

Home Tasks



Course: **Fundamentals of Programming (CS 114)**

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Section	C

Task 1

Input:

```
#include <iostream>
using namespace std;

int main() {
    int sum = 0;

    for (int num = 2; num <= 50; num++){
        bool isPrime = true;

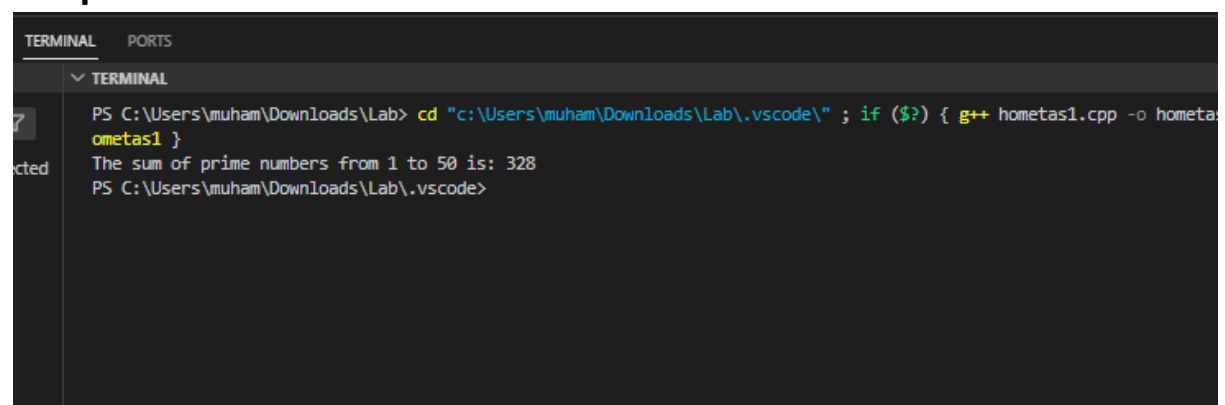
        for (int divisor=2;divisor<num;divisor++) {
            if (num%divisor==0) {
                isPrime=false;
                break;
            }
        }

        if (isPrime) {
            sum += num;
        }
    }

    cout <<"The sum of prime numbers from 1 to 50 is: "<< sum <<endl;

    return 0;
}
```

Output:



```
TERMINAL  PORTS
▼ TERMINAL
PS C:\Users\muham\Downloads\Lab> cd "c:\Users\muham\Downloads\Lab\.vscode\" ; if ($?) { g++ hometas1.cpp -o hometas1 }
The sum of prime numbers from 1 to 50 is: 328
PS C:\Users\muham\Downloads\Lab\.vscode>
```

Task 2

Input:

```
code > hometas2.cpp
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int rows;
6
7      cout<<"Enter the number of rows: ";
8      cin>> rows;
9
10     for (int i=1;i<=rows;i++) {
11         for (int j=1;j<=i;j++) {
12             cout<<j;
13             if (j<i) {
14                 cout<< " ";
15             }
16         }
17         cout<< endl;
18     }
19
20     return 0;
21 }
22
```

Output:

```
▼ TERMINAL
PS C:\Users\muham\Downloads\Lab> cd "c:\Users\muham\Downloads\Lab\.vscode\" ; if ($?) { g++ hometas2 }
Enter the number of rows: 5
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
PS C:\Users\muham\Downloads\Lab\.vscode> |
```

Task 3

Input:

```
code > C:\hometas2.cpp
1
2  #include<iostream>
3  using namespace std;
4  int main(){
5
6      int n;
7      cout<<"enter the value of n:";
8      cin>>n;
9      cout<<"1"<<endl;
10
11     for (int i=2;i<=n;i=i+2){
12         for(int j=1;j<=i;j+=1){
13             cout<<i<<" ";
14         }
15         cout<<endl;
16     }
17     return 0;
18 }
19
20
21
22
```

Output:

```
▼ TERMINAL
PS C:\Users\muham\Downloads\Lab> cd "C:\Users\muham\Downloads\Lab\.vscode\" ; if ($?) { g++ hometas2.cpp -o hometas2 }
Enter the value of n:6
1
2 2
4 4 4 4
6 6 6 6 6 6
PS C:\Users\muham\Downloads\Lab\.vscode> |
```

