

Student Name

Computer Programming

Engr. M Waleed Khan



Bahria University, Islamabad
Department of Software Engineering

Computer Programming Lab
(Fall-2023)

Teacher: Engr. M Waleed Khan

Student : ABDULHADI

Enrollment : 01-131232-
075

Lab Journal: X

Date: 02-11-2023

Task No:	Task Wise Marks		Documentation Marks		Total Marks (20)
	Assigned	Obtained	Assigned	Obtained	
1	3				
2	3				
3	3		5		

4	3				
5	3				

Comments:

Signature

Program 01

```
#include<iostream>

using namespace std;

int main()
{
    int days,quantity,t,fine;

    cout<<"please tell us how many books do you want and how many days do you need"<<endl;
    cout<<"enter days"<<endl;
    cin>>days;
    cout<<"Enter the number of books"<<endl;
    cin>>quantity;

    if(days>=7){
        cout<<"your fine per day after due date will be charged"<<endl;
        fine+=300*quantity*t;
        cout<<fine<<endl;

    }else
        cout<<"there is no fine for you ";
```

```
    return 0;
}
```

Screenshots

```
1  #include<iostream>
2  using namespace std;
3  int main()
4  {
5      int days,quantity,t,fine;
6      cout<<"please tell us how many books do you want and how many days do you need"<<endl;
7      cout<<"enter days"<<endl;
8      cin>>days;
9      cout<<"Enter the number of books"<<endl;
10     cin>>quantity;
11
12     if(days>=7){
13         cout<<"your fine per day after due date will be charged"<<endl;
14         fine+=300*quantity*t;
15         cout<<fine<<endl;
16     }else
17     {
18         cout<<"there is no fine for you ";
19         return 0;
20     }
```

```
please tell us how many books do you want and how many days do you need
enter days
2
Enter the number of books
03
there is no fine for you

...Program finished with exit code 0
Press ENTER to exit console.
```

Program 2

```
#include <iostream>
```

```
bool isPrime(int num) {
    if (num <= 1)
        return false;
```

```

    for (int i = 2; i <= num/2; ++i) {
        if (num % i == 0) {
            return false;
        }
    }

    return true;
}

void findPrimesInRange(int lower, int upper) {
    std::cout << "Prime numbers in the range " << lower << " to " << upper << " are:\n";

    for (int i = lower; i <= upper; ++i) {
        if (isPrime(i)) {
            std::cout << i << " ";
        }
    }
}

int main() {
    int choice;

    std::cout << "Menu:\n";
    std::cout << "1. Find Prime Numbers in a Range\n";
    std::cout << "2. Check if a Number is Prime\n";

```

```
std::cout << "Enter your choice: ";

std::cin >> choice;


if (choice == 1) {
    int lower, upper;

    std::cout << "Enter the lower bound of the range: ";
    std::cin >> lower;

    std::cout << "Enter the upper bound of the range: ";
    std::cin >> upper;

    findPrimesInRange(lower, upper);
} else if (choice == 2) {
    int num;

    std::cout << "Enter a number: ";
    std::cin >> num;

    if (isPrime(num)) {
        std::cout << num << " is a prime number.\n";
    } else {
        std::cout << num << " is not a prime number.\n";
    }
} else {
    std::cout << "Invalid choice.\n";
}
```

```
}
```

```
return 0;
```

```
}
```

Screenshots

```
1 #include <iostream>
2
3 bool isPrime(int num) {
4     if (num <= 1)
5         return false;
6
7     for (int i = 2; i <= num/2; ++i) {
8         if (num % i == 0) {
9             return false;
10        }
11    }
12    return true;
13 }
14 void findPrimesInRange(int lower, int upper) {
15     std::cout << "Prime numbers in the range " << lower << " to " << upper << " are: ";
16
17     for (int i = lower; i <= upper; ++i) {
18         if (isPrime(i)) {
19             std::cout << i << " ";
20         }
21     }
22 }
23 int main() {
24     int choice;
25
26     std::cout << "Menu:\n";
27     std::cout << "1. Find Prime Numbers in a Range\n";
28     std::cout << "2. Check if a Number is Prime\n";
29     std::cout << "Enter your choice: ";
30     std::cin >> choice;
31     if (choice == 1) {
32         int lower, upper;
33         std::cout << "Enter the lower bound of the range: ";
34         std::cin >> lower;
35         std::cout << "Enter the upper bound of the range: ";
36         std::cin >> upper;
37         findPrimesInRange(lower, upper);
38     } else if (choice == 2) {
39         int num;
40         std::cout << "Enter a number: ";
41         std::cin >> num;
42         if (isPrime(num)) {
43             std::cout << num << " is a prime number.\n";
44         } else {
45             std::cout << num << " is not a prime number.\n";
46         }
47     } else {
48         std::cout << "Invalid choice.\n";
49     }
50     return 0;
51 }
52
53
```

Menu:

1. Find Prime Numbers in a Range

2. Check if a Number is Prime

Enter your choice: 1

Enter the lower bound of the range: 2

Enter the upper bound of the range: 3

Prime numbers in the range 2 to 3 are:

2 3