

Fundamentals of Programing

Lab manual: 06

Lab & Home Tasks

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Course: ME-15

Section: A

Task:01

```
• #include<iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int a,x(0),y(1),z;
```

```
    cout<<"Enter the number of terms";
```

```
    cin>>a;
```

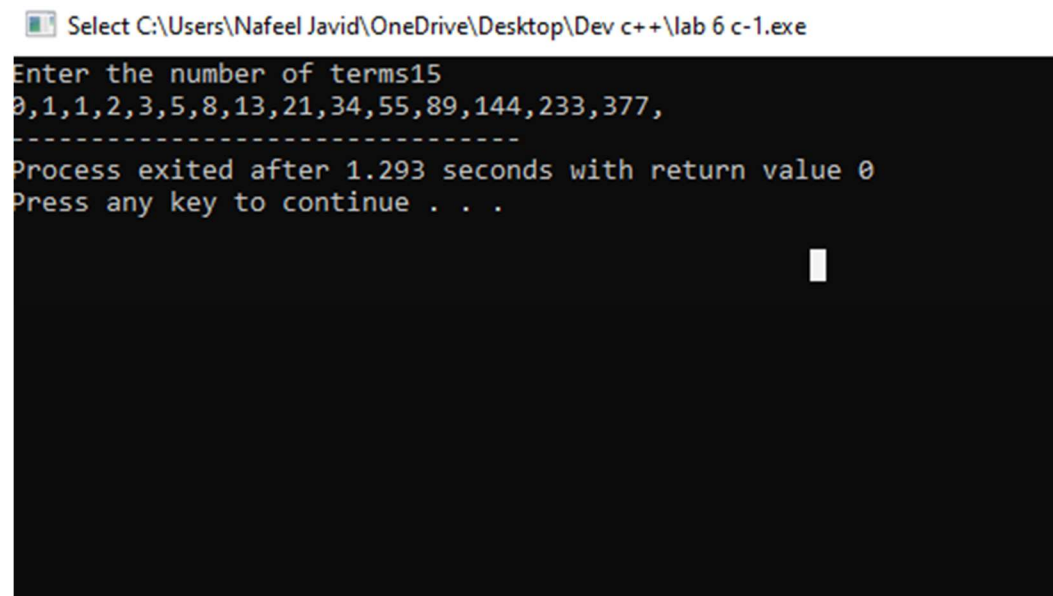
```
    for(int i=0;i<a;++i) {
```

```
        cout<<x<<" ";
```

```
        z=x+y;
```

```
        x=y;
```

```
        y=z;  
  
    }  
  
    return 0;  
  
}
```



```
Select C:\Users\Nafeel Javid\OneDrive\Desktop\Dev c++\lab 6 c-1.exe  
Enter the number of terms15  
0,1,1,2,3,5,8,13,21,34,55,89,144,233,377,  
-----  
Process exited after 1.293 seconds with return value 0  
Press any key to continue . . .
```

Task: 02

```
• #include<iostream>
```

```
using namespace std;
```

```
int main(){

    int x,y(1);

    cout<<"Enter the number of rows for the triangle: ";

    cin>>x;

    for(int i=0;i<=x;++i){

        for(int j=1;j<=i;++j) {

            cout<<y<<" ";

            y++;

        }

        cout<<endl;

    }

    return 0;

}
```

```
C:\Users\Nafeel Javid\OneDrive\Desktop\Dev c++\lab 6 c-2.exe
Enter the number of rows for the triangle: 5
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
-----
Process exited after 3.552 seconds with return value 0
Press any key to continue . . .
```

HOME TASKS:

Task:01

```
• #include<iostream>
```

```
#include<cmath>
```

```
using namespace std;
```

```
int main() {
```

```
    int x,s(0);
```

```
bool P;
```

```
for(int i=2;i<=50;++i) {
```

```
    P=true;
```

```
    for(int x=2;x<=sqrt(i);++x){
```

```
        if(i%x==0){
```

```
            P=false;
```

```
            break;
```

```
        }
```

```
    }
```

```
    if(P){
```

```
        s+=i;
```

```
    }  
  
}  
  
cout<<"Sum of Prime numbers: "<<s;  
  
return 0;  
  
}
```

 C:\Users\Nafeel Javid\OneDrive\Desktop\Dev c++\lab 6 h-1.exe

```
Sum of Prime numbers: 328  
-----  
Process exited after 0.1055 seconds with return value 0  
Press any key to continue . . .
```

Task:02

- #include<iostream>

```
using namespace std;
```

```
int main() {
```

```
    cout<<"The pattern is: "<<endl;
```

```
    for(int i=0;i<=5;i++){
```

```
        for(int j=1;j<=i;j++) {
```

```
            cout<<j<<" ";
```

```
        }
```

```
    cout<<endl;
```

```
}
```

```
return 0;
```

```
}
```



```
C:\Users\Nafeel Javid\OneDrive\Desktop\Dev c++\lab 6 h-2.exe
The pattern is:
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5

-----
Process exited after 0.1093 seconds with return value 0
Press any key to continue . . .
```

Task:03

• #include<iostream>

using namespace std;

int main()

{

int x=1;

for(int i=0;i<4;i++){

```
if(i>=1 && i<=2)
```

```
{ x*=2;
```

```
}
```

```
else if(i==3)
```

```
{x=x+2;
```

```
}
```

```
else
```

```
{
```

```
}
```

```
for(int j=0;j<x;j++)
```

```
{
```

```
cout<<x<<" ";
```

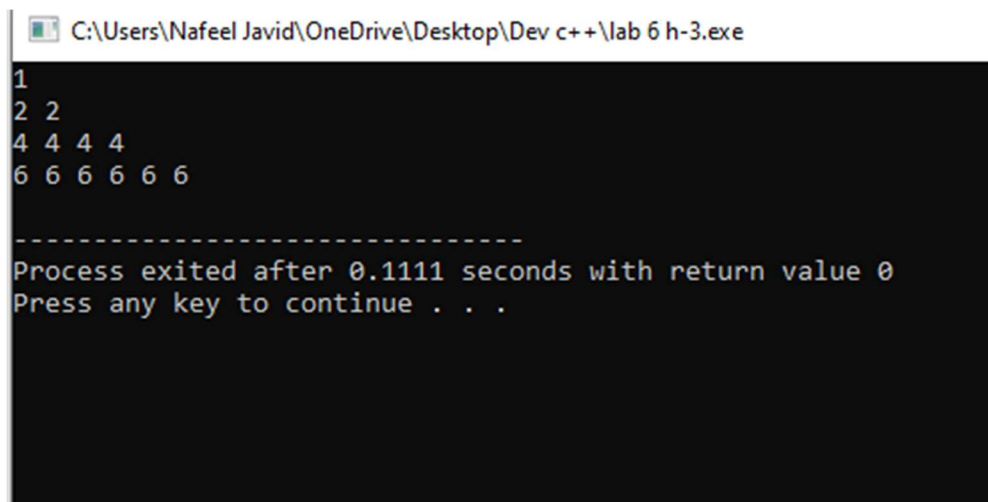
```
}
```

```
cout<<endl;
```

```
}
```

```
return 0;
```

```
}
```



The screenshot shows a Windows command prompt window with the title bar "C:\Users\Nafeel Javid\OneDrive\Desktop\Dev c++\lab 6 h-3.exe". The output of the program is displayed on a black background with white text. It shows four lines of numbers: "1", "2 2", "4 4 4 4", and "6 6 6 6 6 6". Below these lines is a dashed line separator. After the separator, the text "Process exited after 0.1111 seconds with return value 0" is shown, followed by "Press any key to continue . . .".

```
C:\Users\Nafeel Javid\OneDrive\Desktop\Dev c++\lab 6 h-3.exe
1
2 2
4 4 4 4
6 6 6 6 6 6

-----
Process exited after 0.1111 seconds with return value 0
Press any key to continue . . .
```
