Fundamentals of Programing

Lab manual: 06

Lab & Home Tasks

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Course: ME-15

Section: A

Task:01

```cpp
#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;
```
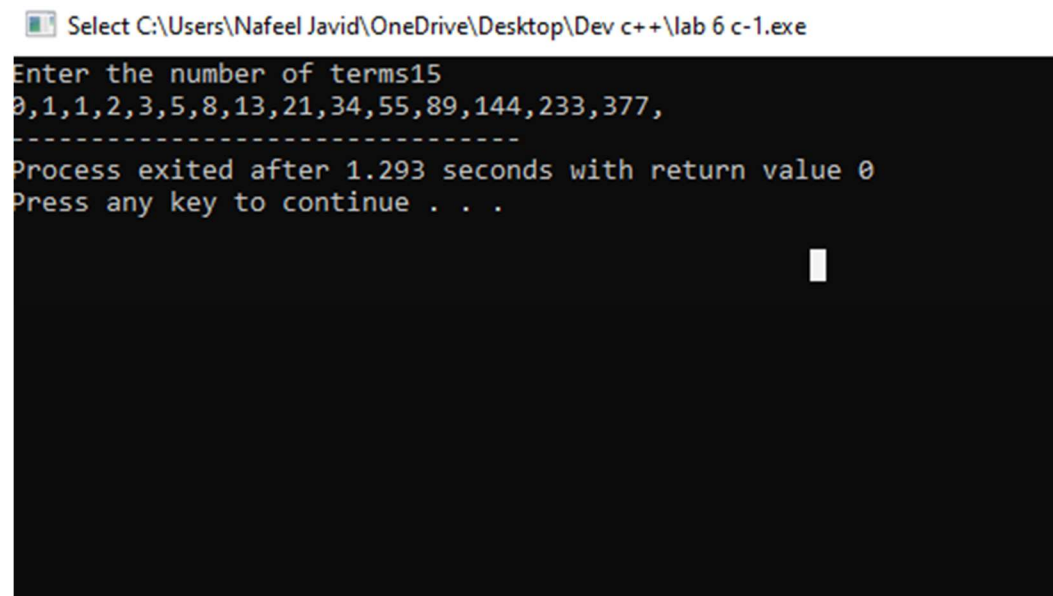
```
        y=z;


    }


    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;

```cpp
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;

}
```

```
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);

```cpp
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;

}
```


Task:02

• #include<iostream>

```cpp
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;

}
```

Task:03

- #include<iostream>

using namespace std;

int main() {

      int x=2;

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

      cout<<"1\n";

```cpp
    for(int i=2;i<=4;++i ) {

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

            cout<<x<<" ";

    }

    x+=2;

    cout<<endl;

}

return 0;

}
```

```
The pattern is:
1
2 2
4 4 4
6 6 6 6

--------------------------------
Process exited after 0.1316 seconds with return value 0
Press any key to continue . . .
```