



# NUST

NATIONAL UNIVERSITY  
OF SCIENCES & TECHNOLOGY

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## **Assignment#2**

### **Lab of fundamental programming**

**Submitted by: Muhammad Yahya Chand**

**ROLL#: 456727**

**Section: ME-15B**

**Date: 11oct,2023.**

### **Task#1:**

```
#include<iostream>

#include<cmath>

using namespace std;

int main(){

    int x;

    cin>>x;

    if(90<=x&&100>=x){

        cout<<"your grade is A";

    }

    else if(75<=x&&90>x){

        cout<<"your grade is B";

    }

    else if(60<=x&&75>x){

        cout<<"your grade is C";

    }

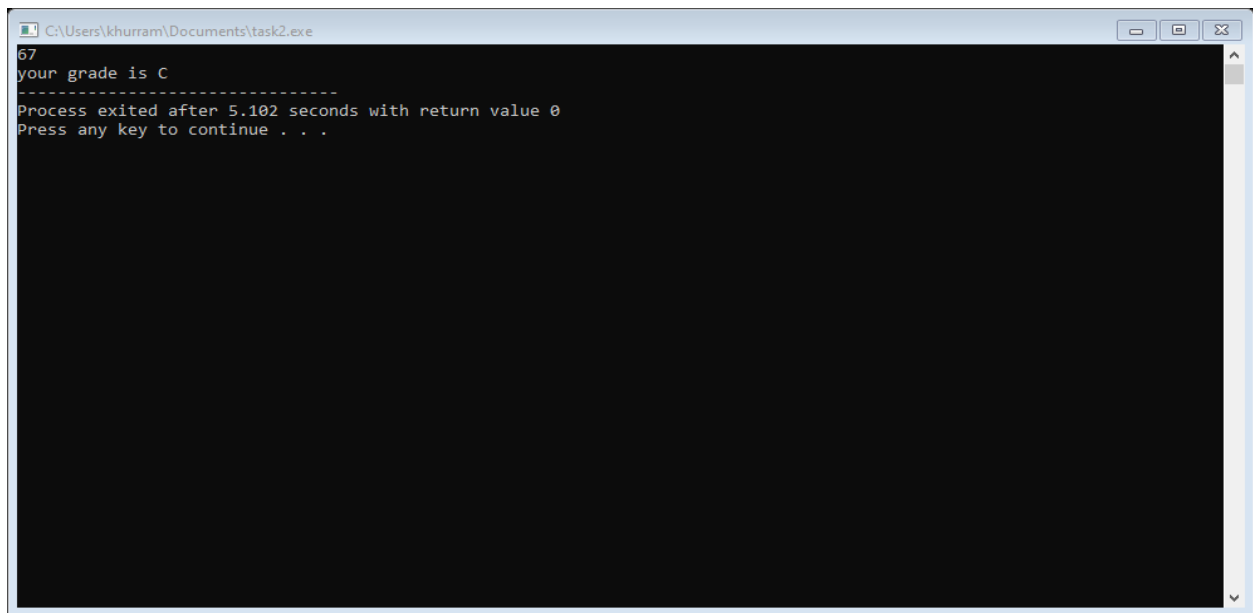
    else if(45<=x&&60>x){

        cout<<"your grade is D";

    }

    else{
```

```
        cout<<"your grade is E";  
    }  
    return 0;  
}
```



A screenshot of a Windows command prompt window. The title bar shows the file path "C:\Users\khurram\Documents\task2.exe". The window contains the following text: "67", "your grade is C", a line of dashes "-----", "Process exited after 5.102 seconds with return value 0", and "Press any key to continue . . .". The window has standard Windows window controls (minimize, maximize, close) in the top right corner.

## Task#2:

```
#include<iostream>

using namespace std;

int main(){

    int i;

    cout<<"please enter the integer: ";

    cin>>i;

    if(i/2&& i/5){

        cout<<"the integer is divisible by 2 and 5";

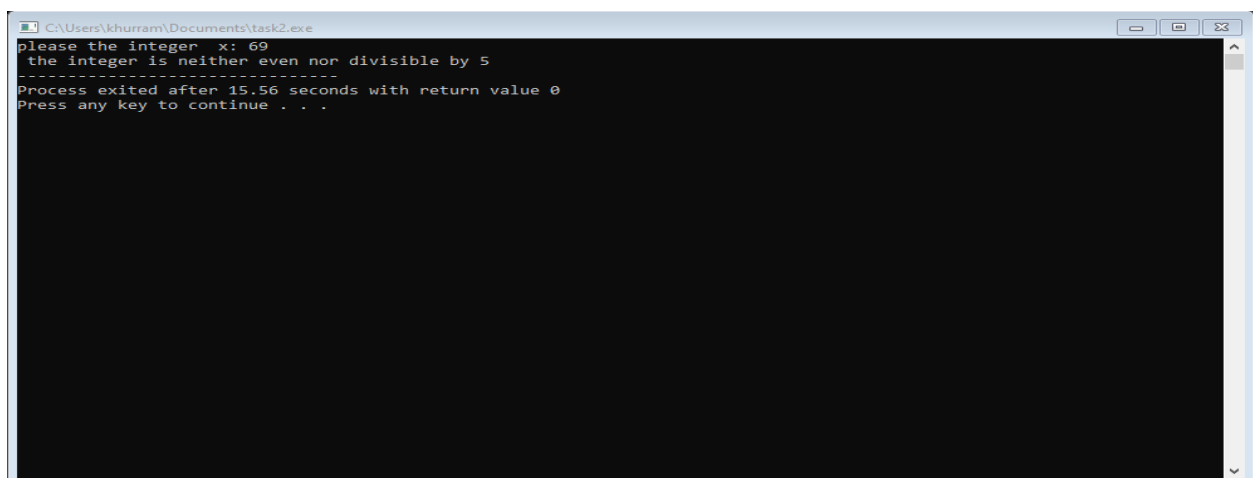
    }

    else{

        cout<<"your integer is not divisible by 2 and 5";

    }

    return 0;}
```



```
C:\Users\khuram\Documents\task2.exe
please the integer x: 69
the integer is neither even nor divisible by 5
-----
Process exited after 15.56 seconds with return value 0
Press any key to continue . . .
```

### Task#3:

```
#include<iostream>

#include<cmath>

using namespace std;

int main(){

    int a;

    cout<< "please enter the year: ";

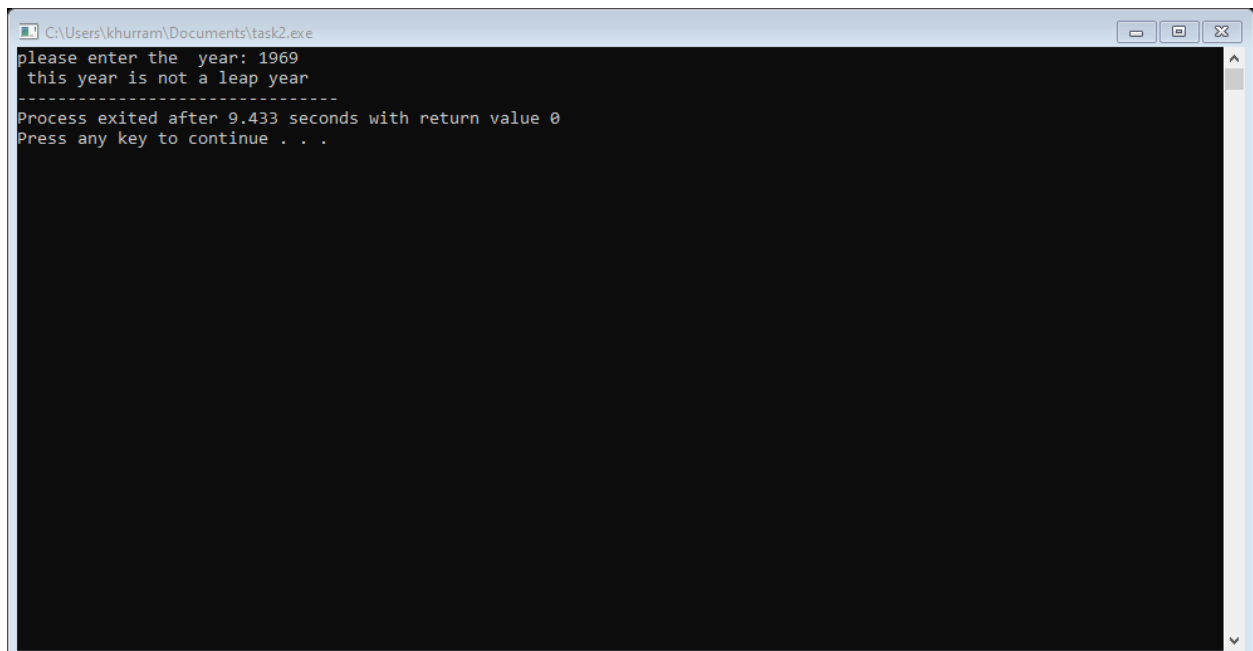
    cin>>a;

    if( a%4==0 && a%100!=0){

        cout<< " this year is a leap year";}

    else {cout<<" this year is not a leap year";}

    return 0;}
```



```
C:\Users\khurram\Documents\task2.exe
please enter the year: 1969
this year is not a leap year
-----
Process exited after 9.433 seconds with return value 0
Press any key to continue . . .
```

#### Task#4:

```
#include<iostream>
```

```
#include<cmath>
```

```
using namespace std;
```

```
int main(){
```

```
    float x;
```

```
    float y;
```

```
    cout<<" please enter the GPA: ";
```

```
    cin>> x;
```

```
    cout<< " please enter the attendance percentage: ";
```

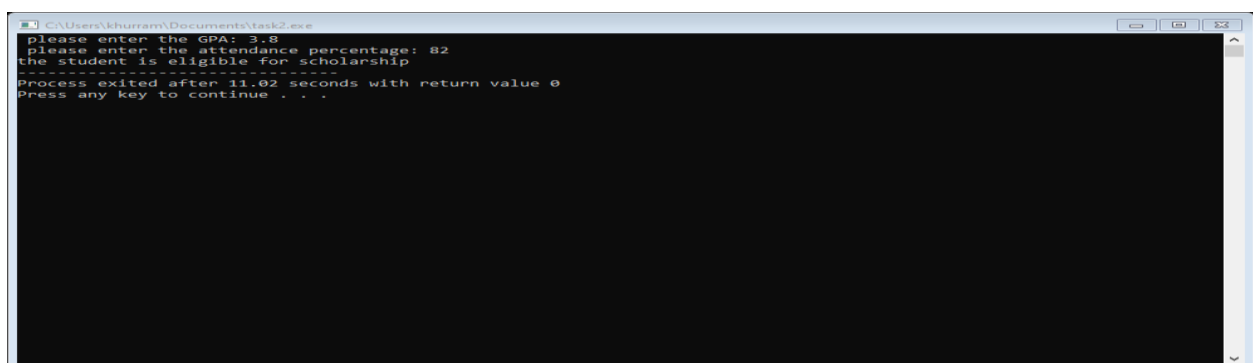
```
    cin>> y;
```

```
    if( x>= 3.5 && y>=80){        {
```

```
        cout<<"the student is eligible for scholarship";}
```

```
    else { cout<<"the student is not eligible for scholarship"; }
```

```
    return 0; }
```



```
C:\Users\khuram\Documents\task2.exe
please enter the GPA: 3.8
please enter the attendance percentage: 82
the student is eligible for scholarship
-----
Process exited after 11.02 seconds with return value 0
Press any key to continue . . .
```

### Task#5:

```
#include<iostream>
```

```
#include<cmath>
```

```
using namespace std;
```

```
int main(){
```

```
    char x;
```

```
    cout<< "please enter the character: ";
```

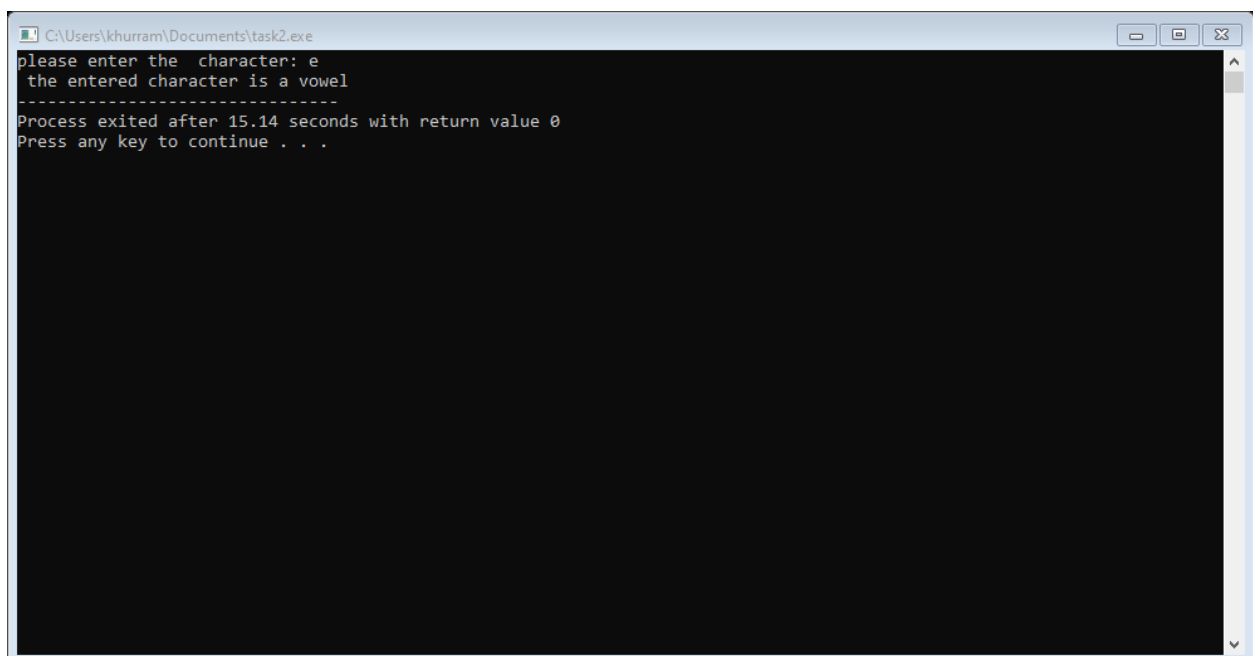
```
    cin>>x;
```

```
    if ( x=='a' || x=='e' || x=='i' || x=='o' || x=='u'){
```

```
        cout<< " the entered character is a vowel";}
```

```
    else { cout<< " the entered character is a consonant";}
```

```
    return 0;}
```



```
C:\Users\khuram\Documents\task2.exe
please enter the character: e
the entered character is a vowel
-----
Process exited after 15.14 seconds with return value 0
Press any key to continue . . .
```

