NATIONAL UNIVERSITY OF SCINCE AND TECHNOLOGY

FUNDAMENTALS OF PROGRAMMING

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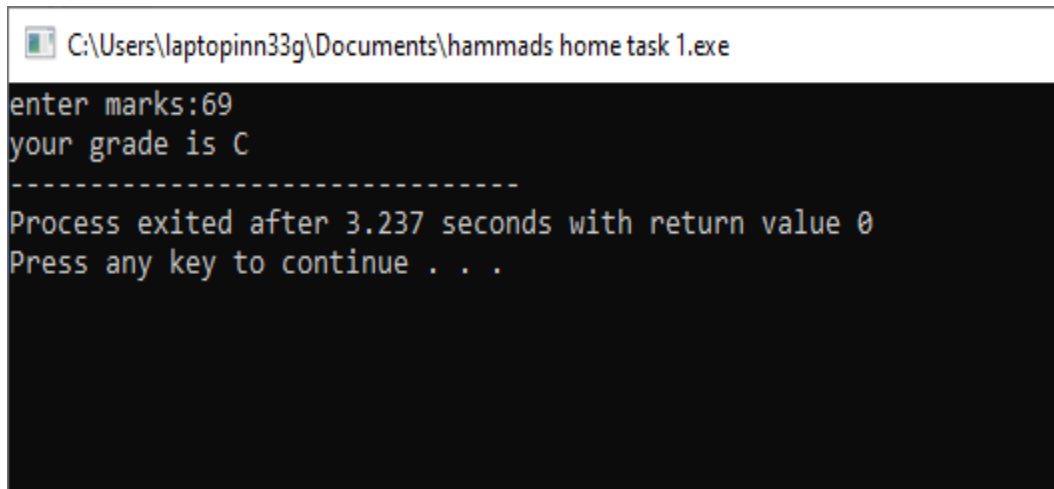
SECTION:ME-15(A)

REG # 481644

TASK NO 1:

```cpp
1    #include<iostream>  //library
2    using namespace std;  //for cout
3
4    int main() //scope
5    {
6        int marks; //declaration
7        cout<<"enter marks:"; //input
8        cin>>marks;
9        if(marks<=100 && marks>=90){  //condition using logic operators &&
10           cout<<"your grade is A"; //output
11       }
12
13       else if(marks<90 && marks>=75){ //condition using logic operators &&
14           cout<<"your grade is B"; //output
15       }
16       else if(marks<75 && marks>60){ // condition using logic operators &&
17            cout<<"your grade is C"; //output
18       }
19       else if(marks<=60 && marks>45){ //condition using logic operators &&
20           cout<<"yor grade is D "; //output
21       }
22       else if (marks<=45 && marks>=0){    //condition using logic operators &&
23           cout<<"your grade is F "; //output
24       }
25
26       return 0;
27   }
```

RESULTS:

```
C:\Users\laptopinn33g\Documents\hammads home task 1.exe

enter marks:69
your grade is C
--------------------------------
Process exited after 3.237 seconds with return value 0
Press any key to continue . . .
```

TASK NO 2:

```cpp
int main()
{
    int a; //given integer
    int even;
    int div;

    cout<<"enter the given integer :"; //DISPLAY
    cin>>a; //input
    even=a%2; // operator
    div=a%5;
    if(even==0 && div==0){                        //condition
        cout<<"the integer is both even and divisible by 5"; //input

    }
    else if(even!=0 && div==0){       //condition
        cout<<"the integer is divisible by 5 but not even"; //input
    }
    else if(even==0 && div!=0){    //condition

    cout<<"the integer is  even and  not  divisible by 5"; //input
        }
    else if(even!=0  && div!=0){  //condition

    cout<<"the integer is not even and not divisible by 5";   //input
}

    return 0;

}
```

RESULTS:

C:\Users\laptopinn33g\Documents\hammads home task 2.exe

```
enter the given integer :65
the integer is divisible by 5 but not even
--------------------------------
Process exited after 2.43 seconds with return value 0
Press any key to continue . . .
```

TASK NO 3:

```cpp
#include<iostream>
using namespace std;
int main(){


    int  year;
    int leap;

    cout <<"enter the given year:";
    cin>>year;
    leap=year%4;
    if(leap==0){
        cout<<"given year is leap year:";
    }
    else{
        cout<<"results::::::::given year is not a leap year:";
    }
    return 0;
}
```

RESULTS:

C:\Users\laptopinn33g\Documents\hammads home task 3.exe

```
enter the given year:2020
given year is leap year:
-------------------------------
Process exited after 5.705 seconds with return value 0
Press any key to continue . . .
```

TASK NO 4:

```cpp
#include<iostream>
using namespace std;
int main()
{
    float cg ;  // variable for  cgpa
    int att; //variable for attendance
    cout<<"enter the given attendance :";
    cin>>att;
    cout<<"enter the given cgpa:"; //display
    cin>>cg; //input
        if(cg>=3.5 && att>=80){ //operation
        cout<<"Student is eligible for  scholarship:"; //output
        }
        else if (cg<3.5 || att<80)
{
                        cout<<"Student is not eligible for scholarship: "; //output
        }

    return 0;

}
```

RESULT:

```
C:\Users\laptopinn33g\Documents\hammad home task 4.exe

enter the given attendance :86
enter the given cgpa:3.7
Student is eligible for  scholarship:
-------------------------------
Process exited after 7.777 seconds with return value 0
Press any key to continue . . .
```

TASK NO 5:

```
1    #include<iostream>
2    using namespace std;
3    int main()
4    {
5        char  x; //declarayion
6        cout<<"enter the given char   :";//input
7        cin>>x;
8        if (x=='a'|| x=='e'||x=='i'||x=='o' ||x=='u'){//operation
9
10
11           cout<<"the given char is a vowel :"; //output 1
12
13       }
14       else{
15
16           cout<<" th given char is not a vowel :";//output 2
17       }
18       return 0;
19   }
```

RESULT:

C:\Users\laptopinn33g\Documents\hammad home task 5.exe

```
enter the given char  :i
the given char is a vowel :
----------------------------------
Process exited after 1.212 seconds with return value 0
Press any key to continue . . .
```