



NUST

NATIONAL UNIVERSITY
OF SCIENCES & TECHNOLOGY

Programming lab Assignment

01

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Section C

Q.No : 01

```
#include<iostream>
using namespace std;
```

```

int main()
{
    int n,i;

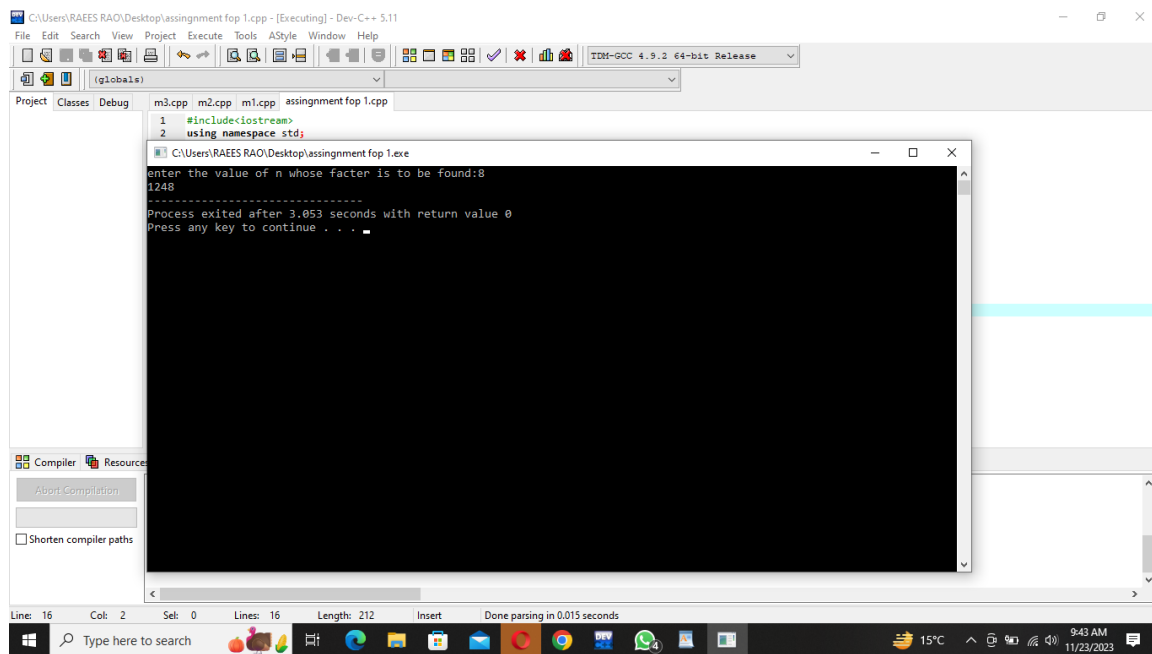
    cout<<"enter the value of n whose factor is to be found:";

    cin>>n;

    for(i=1; i<=n; ++i)
    {
        if(n%i==0)
        cout<<i;
    }

    return 0;
}

```



Q.No:02

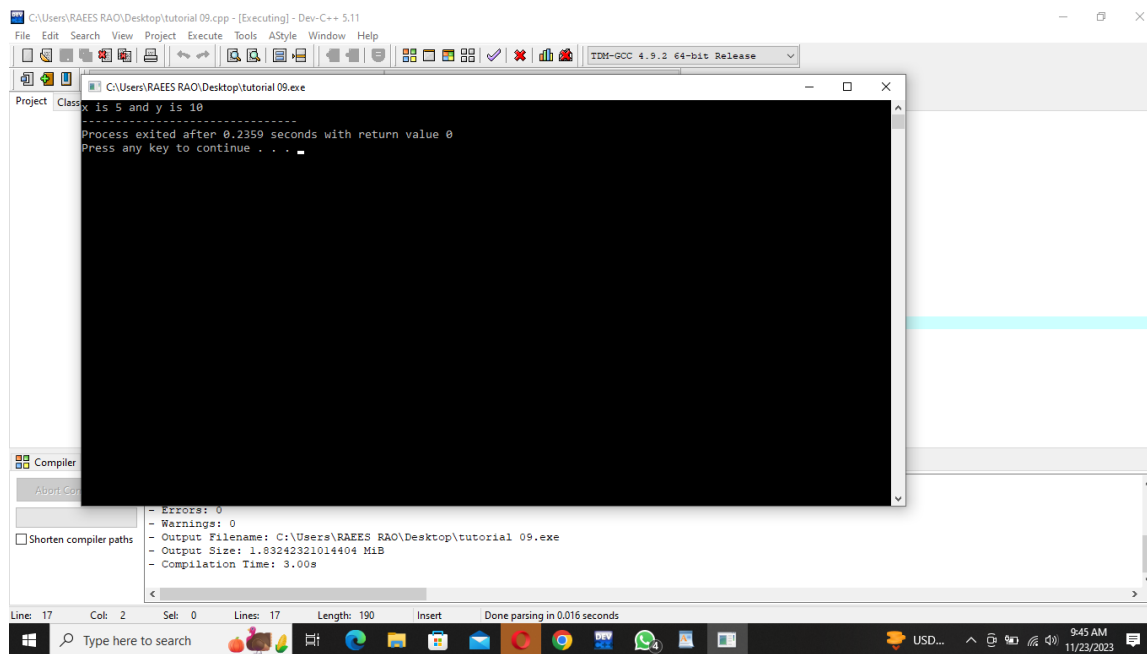
```
#include<iostream>
```

```

using namespace std;

int main()
{
    int x = 5;
    int y = 10;
    if(x==5)
        if(y==10)
            cout<<"x is 5 and y is 10";
    else
        cout<<"y is not 10";
    return 0;
}

```



Q.No:03

```

#include<iostream>

using namespace std;

```

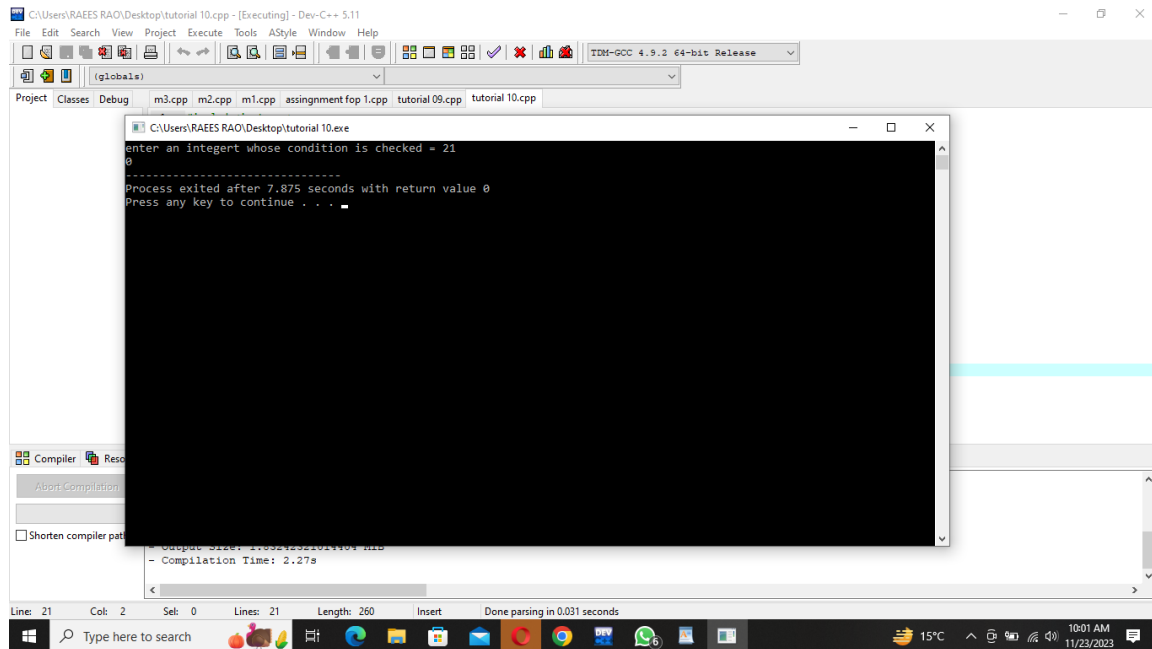
```
int main()

{
    int n;
    bool a = true;
    bool b = false;


    cout<<"enter an integert whose condition is checked = ";
    cin>>n;
    if( n>10 && n<=20)

    cout<<a;
    else
    cout<<b;
    return 0;

}
```



Q.No:04

```
#include<iostream>

using namespace std;

bool isprime(int num)
{
    if(num<2)
    {
        return false;    }
    for(int i=2; i<num; ++i)
    {
        if(num%i==0){
            return false;
        }
    }
    return true;
}
```

```

int main()
{
    int N;

    cout<<"enter the positive integer such as N : ";

    cin>>N;
while(N>=2) {
    if(isprime(N))

        cout<<"the largest prime number equal or less to
"<<N<<"="<<N<<"\n";

        break;

    }

    --N;

}

return 0;
}

```

The screenshot shows the Dev-C++ IDE interface. The main window displays the source code, and the console window (bottom) shows the program's execution. The console output is as follows:

```

C:\Users\RAEES RAO\Desktop\m2.exe
enter the positive integer such as N : 70
the largest prime number equal or less to 67=67
-----
Process exited after 6.224 seconds with return value 0
Press any key to continue . . .

```

The compiler window (bottom) shows the following compilation details:

```

-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\RAEES RAO\Desktop\m2.exe
- Output Size: 1.83245849609375 MiB
- Compilation Time: 2.64s

```

The status bar at the bottom indicates the current line and column: Line: 36, Col: 1, Sel: 0, Lines: 45, Length: 484. It also shows the parsing status: Done parsing in 0.031 seconds.

Q.No:05

```
#include <iostream>
#include <string>
using namespace std;
int main() {
    string str1, str2;
    cout << "Enter first string: ";
    cin >> str1;
    cout << "Enter second string: ";
    cin >> str2;
    if (str1 == str2) {
        rotate(str1.begin(), str1.begin() + 1, str1.end());
        cout << "Strings are now unequal:\n";
        cout << "String 1: " << str1 << "\n";
        cout << "String 2: " << str2 << "\n";
    } else {
        cout << "Strings are already unequal.\n";
    }
}
```

Q.No:06

```
#include <iostream>
using namespace std;

int main()
{
    int num = 0;
    cout << "Enter the number\n"; cin >> num;
```

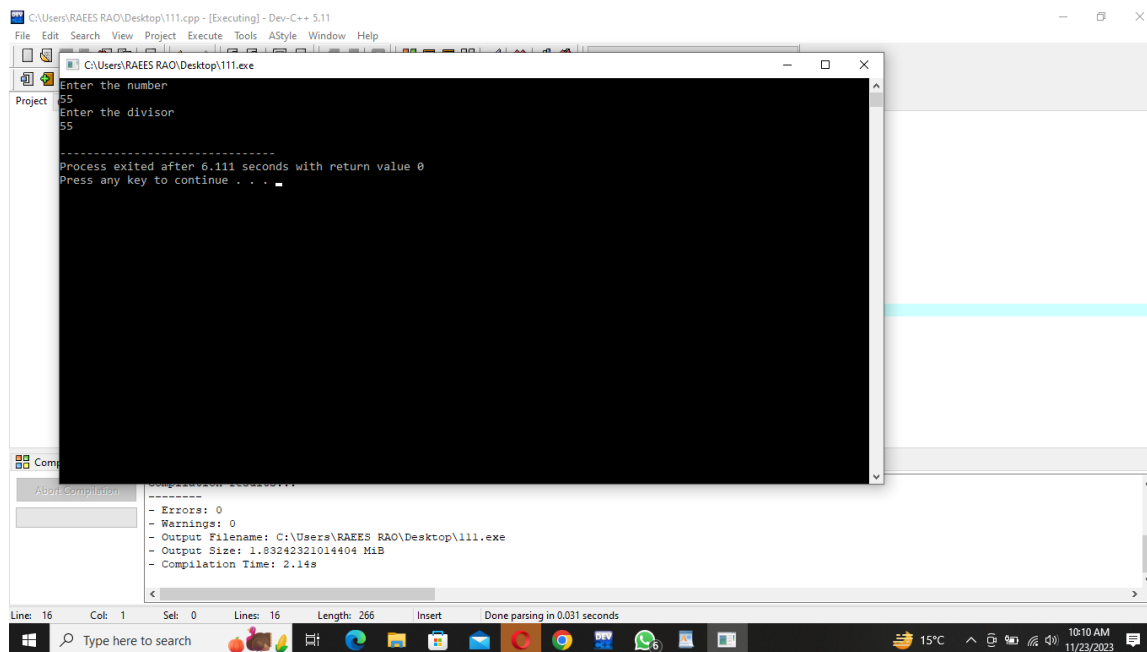
```

int quotient = 0; int divisor = 0;

cout << "Enter the divisor\n"; cin >> divisor;

while (num>=divisor)
{
num -= divisor; quotient++;
}
}

```



Q.No:07

```

#include <iostream>

using namespace std;

string removeDuplicates(const string& str) {
    string result;

    for (int i = 0; i < str.length(); ++i) {
        char currentChar = str[i];

        if (str.find(currentChar, i + 1) == string::npos) {
            result.push_back(currentChar);
        }
    }
}

```



```

        }
    }
    return result;
}

int main() {
    string inputString;
    cout << "Enter a string: ";
    cin >> inputString;
    string resultString = removeDuplicates(inputString);
    cout << "Resultant string after removing duplicates: " <<
resultString << endl;
    return 0;
}

```

Q.No:08

```

#include <iostream> using namespace std; int main()
{int a[10] = { 1,2,3,4,5 };
for (int i = 0; i <= 9; i++)
{cin >> a[i];
}for (int i = 0; i <= 9; i++)
{cout<<a[i]<<endl;}
}

```

Q.No:09

```

#include <iostream> using namespace std;

int main()
{

int a[5]; int num = 0;

```

```
bool found = false;

cout << "Enter a number¥n"; cin >> num;

cout << endl;

cout << "Enter the numbers of the array¥n"; for (int i = 0; i < 5;
i++)

{
cin >> a[i];
}

for (int i = 0; i < 5; i++)
{for (int j = 0; j < 5; j++)
{for (int k = 0; k < 5; k++)
{if (a[i]+a[j]+a[k]==num)
{found = true;
}
}
}
}if (!found)
{
}
```

```
cout << "Triplet not found" << endl;
cout << "Triplet found\n";
return 0;}
```

Q.No:10

```
int main()
{
    int a[6];
    cout << "Enter the array of 6 integers\n"; for (int i = 0; i < 6; i++)
    cin >> a[i];
    for (int e = 0; e <= 6; e++)
    {for (int j = 0; j < 4;j++)
    {if (a[j] > a[j + 1])
    {int temp; temp = a[j];
    a[j] = a[j + 1]; a[j + 1] = temp;}}}
    }
    cout << "The sorted array is :" << endl;
    for (int k = 0;k < 6;k++)
    {cout<< a[k]<<endl;
    }return 0;
}
else
{
}
```

