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Assignment no 1
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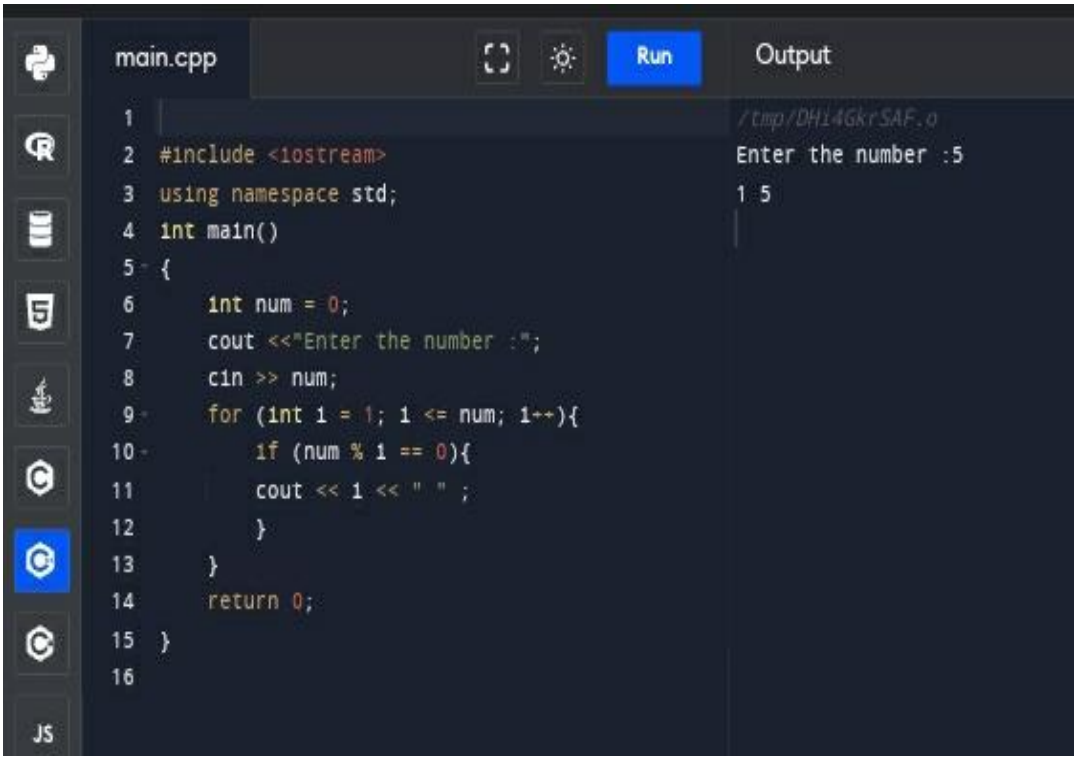
Q1



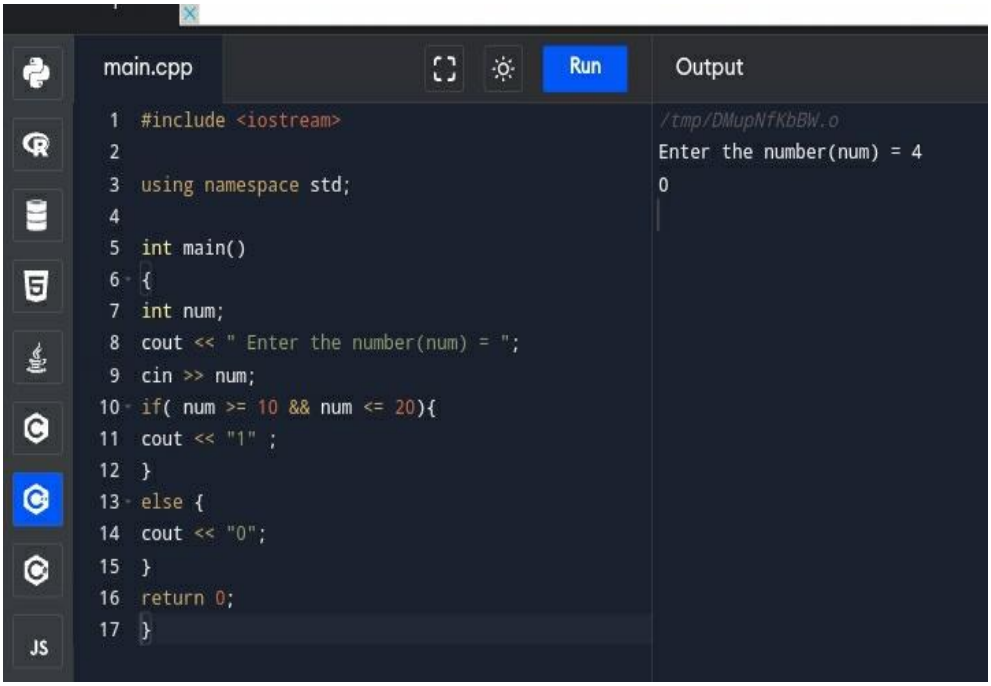
Q2. Write output to the following code.

```
#include <iostream>
int main(0{
int x = 5;
int y = 10;
if (x5)
if (y = 10) std::cout << "x is 5 and
y is 10" << std::endl; else std::cout
<< "x is not 5" << std::endl;
return 0;
```

OUTPUT:

x is 5 and y is 10.

Q3



Q4

```cpp
#include <iostream>

using namespace std;

int main()
{
int N = 0;
cout << "Enter numbwer(N) = ";
cin >> N;
int count = 2;
int i = 1;
int largestPrime = 1;
bool isPrime = true;

while (count<=N) {

isPrime = true;
i = 2;
while (i<count && isPrime==true) {
if (!(count % i == 0)){
isPrime = true;
}
else
{
isPrime = false;
}
i++;
}
if (isPrime==true) {
largestPrime = count;
}
count++;
}
cout << "The largest prime number less than or
     equal to "<< N << " is "<< largestPrime <<
endl;
return 0;
}
```

Q5

main.cpp | Run | Output | Clear

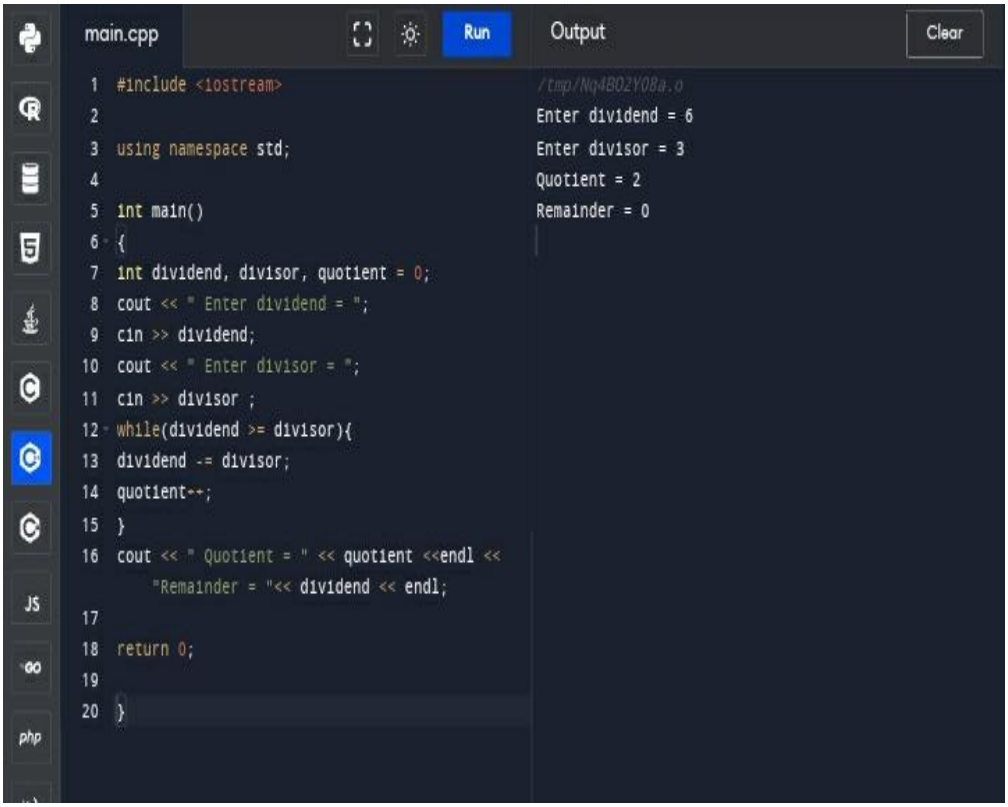
```cpp
#include <iostream>
using namespace std;
int main()
{
const int SIZE = 100;
char str1[SIZE], str2[SIZE];
cout << "Enter the first string = ";
cin >> str1;
cout << "Enter the second string = ";
cin >> str2;

int i = 0;

while (str1[i] != '\0' && str2[i] != '\0' &&
    str1[i] == str2[i]) {
i++;
}
if (str1[i] == '\0' && str2[i] == '\0') {
int len = 0;
while (str1[len] != '\0') {
len++;
}
char temp = str1[0];
for (int j = 0; j < len - 1; j++) {
str1[j] = str1[j + 1];
}
str1[len - 1] = temp;
cout << "After rotation, the first string = "
    << str1 << endl;
cout << "The second string remains = " << str2
    << endl;
} else
{
cout << "The strings are not equal." << endl;
}
return 0;
}
```

```
/tmp/Nq4BO2YO8a.o
Enter the first string = 5
Enter the second string = 7
The strings are not equal.
```

Q6


main.cpp
Run
Output
Clear
#include <iostream>
using namespace std;
int main()
{
int dividend, divisor, quotient = 0;
cout << " Enter dividend = ";
cin >> dividend;
cout << " Enter divisor = ";
cin >> divisor ;
while(dividend >= divisor){
dividend -= divisor;
quotient++;
}
cout << " Quotient = " << quotient <<endl <<
"Remainder = "<< dividend << endl;
return 0;
}
/tmp/Nq4BO2Y08a.o
Enter dividend = 6
Enter divisor = 3
Quotient = 2
Remainder = 0

Q 8

main.cpp Run Output

```cpp

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

```

```
/tmp/Nq4BO2Y08a.o
12345
```

Q7

main.cpp Run Output Clear

```cpp
#include <iostream>
using namespace std;
int main() {
   string input;
   cout << "Enter a string: ";
   cin>> input ;

   string result = "";

   for (char c : input) {
       if (result.find(c) == string::npos) {
           result += c;
       }
    }

    cout << "The string without
        duplicatcharacters is: " << result <<
        endl;

  return 0;
}
```

```
/tmp/veKnu82oHR.o
Enter a string: 6
The string without duplicatcharacters is: 6
```

Q9

main.cpp

```cpp
#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;
    }
    else
    {
        cout << "Triplet found\n";
    }
    return 0;
}
```

Output

```
/tmp/CpJdxHk1Qk.o
Enter a number
42
Enter the numbers of the array
1
2
3
4
5
Triplet not found
```

Q10

main.cpp

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

Output

```
/tmp/CpJdxHk1Qk.o
Enter the array of 6 integers
2
3
4
5
4

5
6
The sorted array is :
2
3
4
4
5
6
```