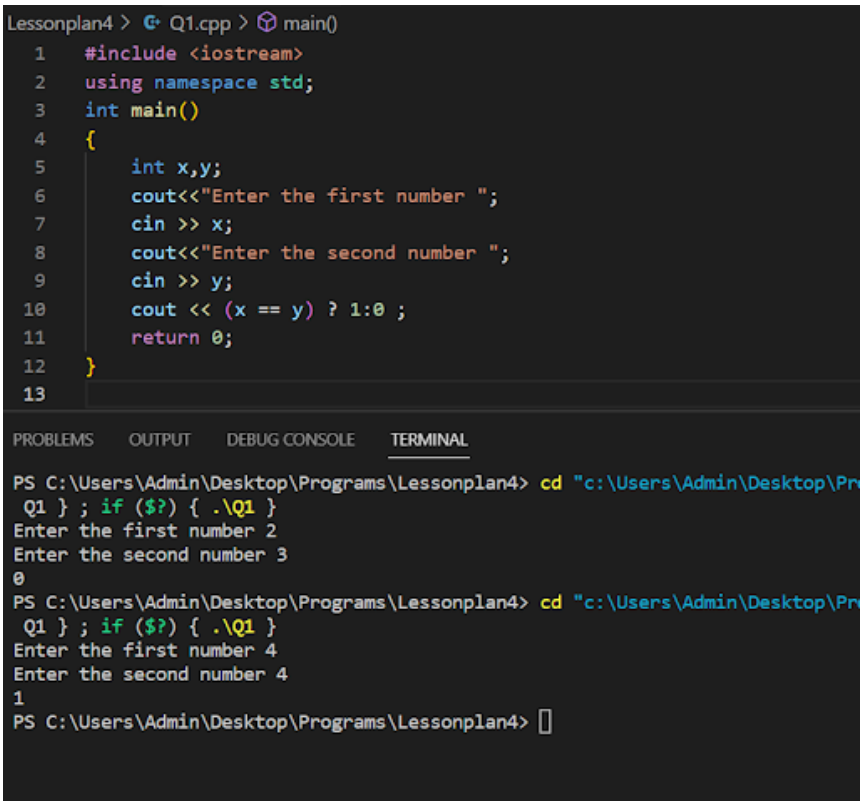
C++ Operators

Assignment Solutions

PW SKILLS

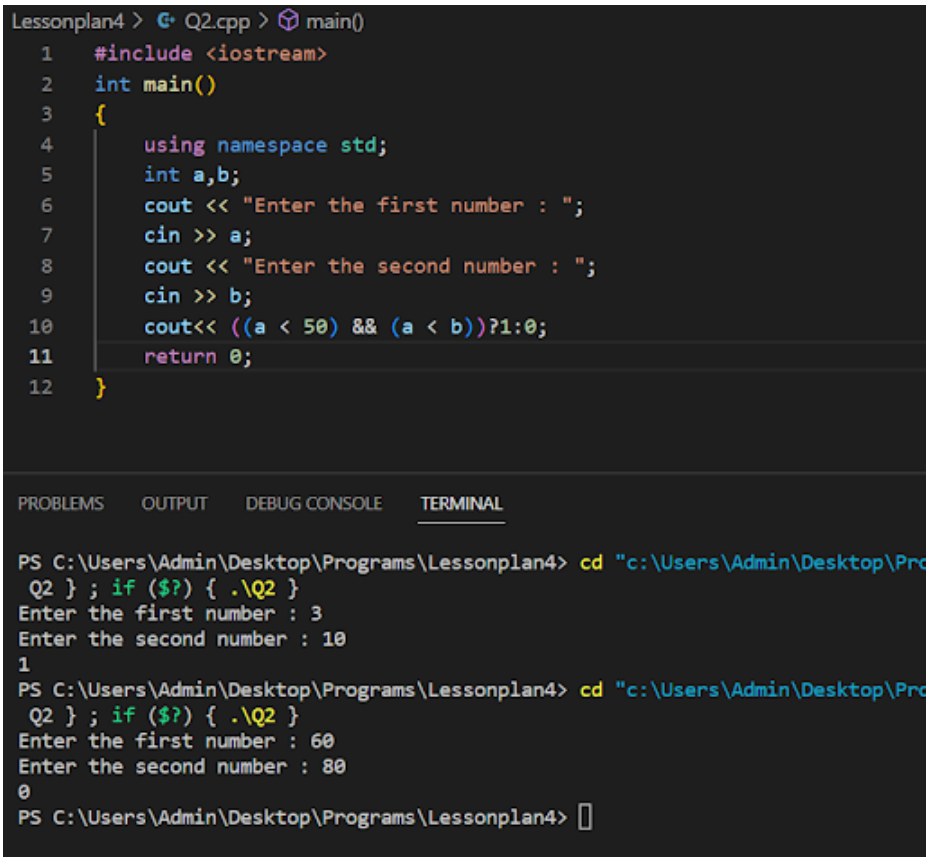
Q1 - Write a program to check whether two numbers (entered by user) are equal or not (0 for not equal, 1 for equal)

```
#include <iostream>
using namespace std;
int main()
{
	int x,y;
	cout<<"Enter the first number ";
	cin >> x;
	cout<<"Enter the second number ";
	cin >> y;
	cout << (x == y) ? 1:0 ;
	return 0;
}
```



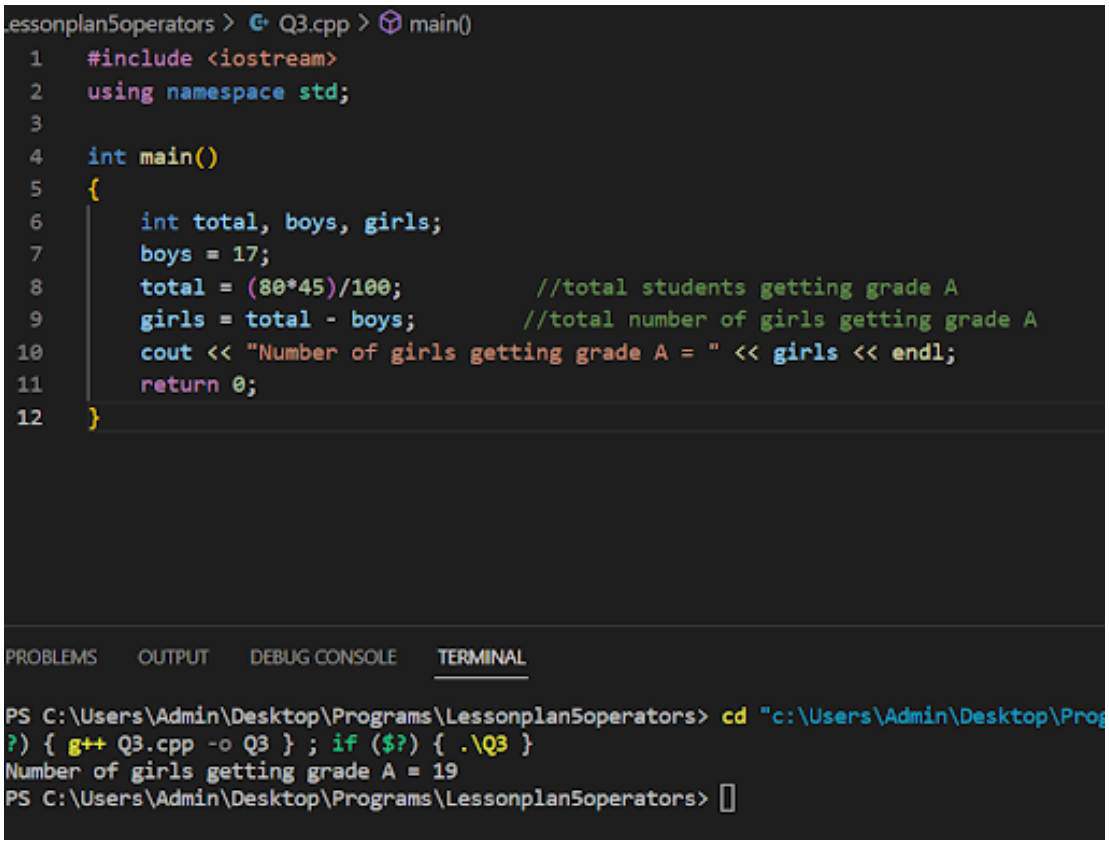
Q2 - Write a program to take the values of two variables a and b from the keyboard and then check if both the conditions 'a < 50' and 'a < b' are true.

```
#include <iostream>
using namespace std;
int main()
{
	int a,b;
	cout << "Enter the first number : ";
	cin >> a;
	cout << "Enter the second number : ";
	cin >> b;
	cout<< ((a < 50) && (a < b))?1:0;
	return 0;
}
```



Q3 - There are 45 total pupils in the class, 25 of whom are boys. Write a program to find how many girls received grades "A" if 17 boys made up 80% of the students that received grades "A".

```
#include <iostream>
using namespace std;
int main()
{
    int total, boys, girls;
    boys = 17;
    total = (80*45)/100;                    //total students getting grade A
    girls = total - boys;                   //total number of girls getting grade A
    cout << "Number of girls getting grade A = " << girls << endl;
    return 0;
}
```

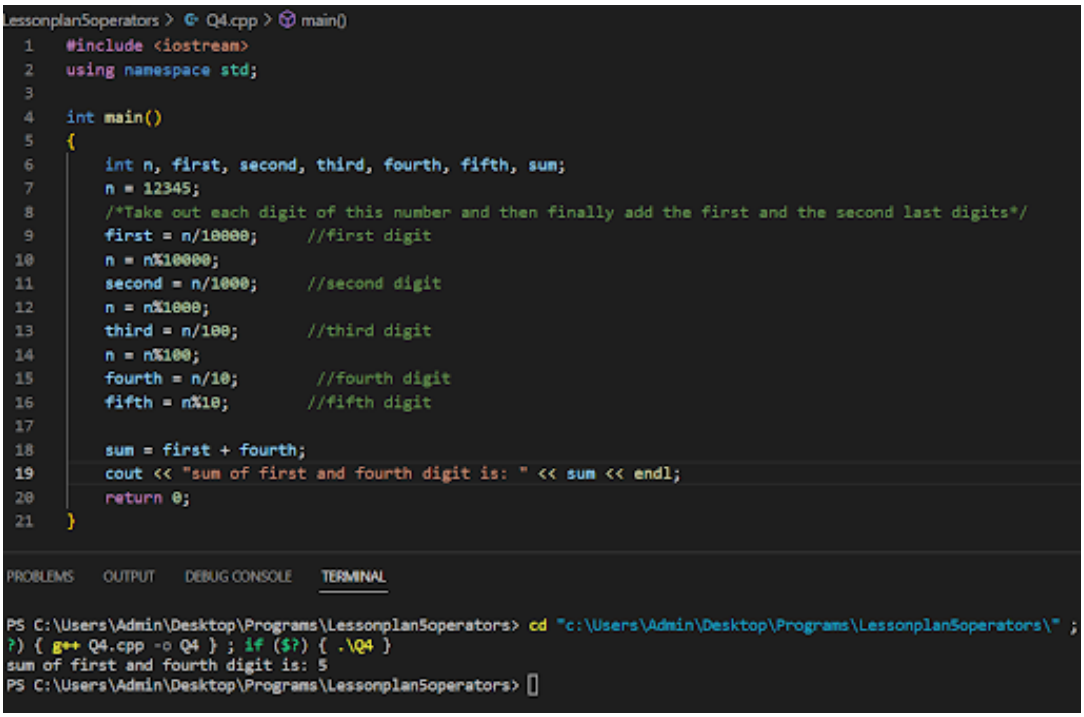


Q4 - Write a program to calculate the sum of the first and the second last digit of a 5 digit number.

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

int main()
{
int n, first, second, third, fourth, fifth, sum;
      n = 12345;
/*Take out each digit of this number and then finally add the first and the second last digits*/
      first = n/10000;     //first digit
      n = n%10000;
      second = n/1000;     //second digit
      n = n%1000;
      third = n/100;       //third digit
      n = n%100;
      fourth = n/10;        //fourth digit
      fifth = n%10;        //fifth digit

      sum = first + fourth;
      cout << "sum of first and fourth digit is: " << sum << endl;
      return 0;
}
```

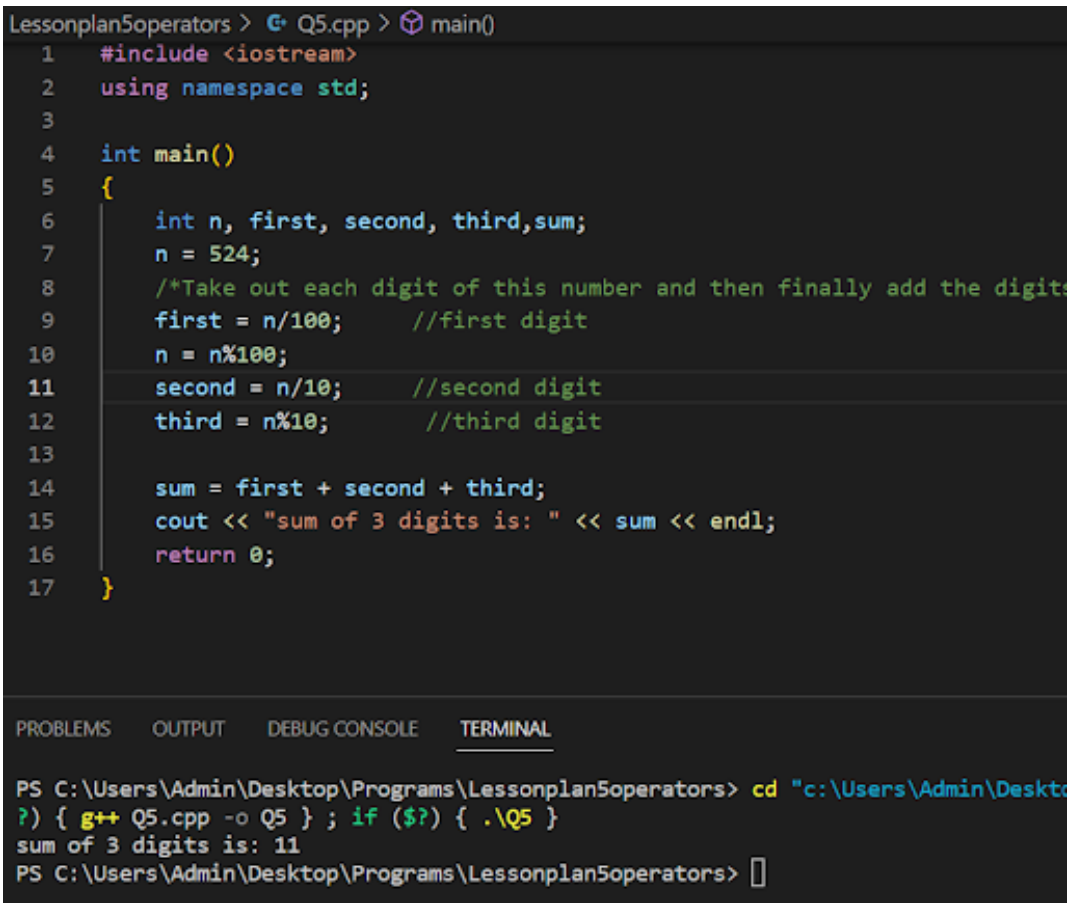


Q5 - write a program to calculate the sum of digits of a 3 digit number.

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

int main()
{
	int n, first, second, third,sum;
	n = 524;
	/*Take out each digit of this number and then finally add the digits*/
	first = n/100;	//first digit
	n = n%100;
	second = n/10;	//second digit
	third = n%10;	 //third digit

	sum = first + second + third;
	cout << "sum of 3 digits is: " << sum << endl;
	return 0;
}
```



Q6 - Design a calculator to perform basic arithmetic operations (+,-,/,*)

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

int main() {

    float num1, num2;
    cout << "Enter the first number ";
    cin >> num1;
    cout << "Enter the second number ";
    cin >> num2;
    cout << "Sum = " << num1 + num2<<endl;
    cout <<"Difference = " << num1 - num2<<endl;
    cout <<"Product = " << num1 * num2<<endl;
    cout << "Division = " << num1 / num2<<endl;
    return 0;
}
```