

Write a program to perform addition, subtraction, multiplication, division, and modulus operations on two user-provided integers.

The screenshot displays the OnlineGDB web interface. The browser address bar shows 'onlinegdb.com/#'. The left sidebar contains navigation links: 'OnlineGDB', 'online compiler and debugger for c/c++', 'code. compile. run. debug. share.', 'IDE', 'My Projects', 'Classroom new', 'Learn Programming', 'Programming Questions', 'Sign Up', and 'Login'. The main editor area shows a C program named 'main.c' with the following code:

```
1 #include <stdio.h>
2 int main() {
3     int num1, num2;
4     printf("Enter the first integer:");
5     scanf("%d", &num1);
6     printf("Enter the Second integer:");
7     scanf("%d", &num2);
8     printf("Addition: %d + %d = %d\n", num1, num2, num1 + num2);
9     printf("Subtraction: %d - %d = %d\n", num1, num2, num1 - num2);
10    printf("Multiplication: %d * %d = %d\n", num1, num2, num1 * num2);
11    if (num2 != 0)
12    {
13        printf("Division: %d / %d = %d\n", num1, num2, num1 / num2);
14        printf("Modulus: %d %% %d = %d\n", num1, num2, num1 % num2);
15    }
16    else {
17        printf("NULL Value");
18    }
19    return 0;
20 }
```

Below the code editor, the 'input' tab shows the program's execution output:

```
Enter the first integer:45
Enter the Second integer:3
Addition:45+3=48
Subtraction:45-3=42
Multiplication:45*3=135
Division:45/3=15
Modulus:45%3=0

...Program finished with exit code 0
Press ENTER to exit console.
```

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Write a program to calculate the average of five integers provided by the user.

The screenshot displays the OnlineGDB web interface. The browser address bar shows 'onlinegdb.com/#'. The left sidebar contains navigation links: OnlineGDB, online compiler and debugger for c/c++, code. compile. run. debug. share., IDE, My Projects, Classroom (with a 'new' badge), Learn Programming, Programming Questions, Sign Up, and Login. The main editor area shows a C program in 'main.c' with the following code:

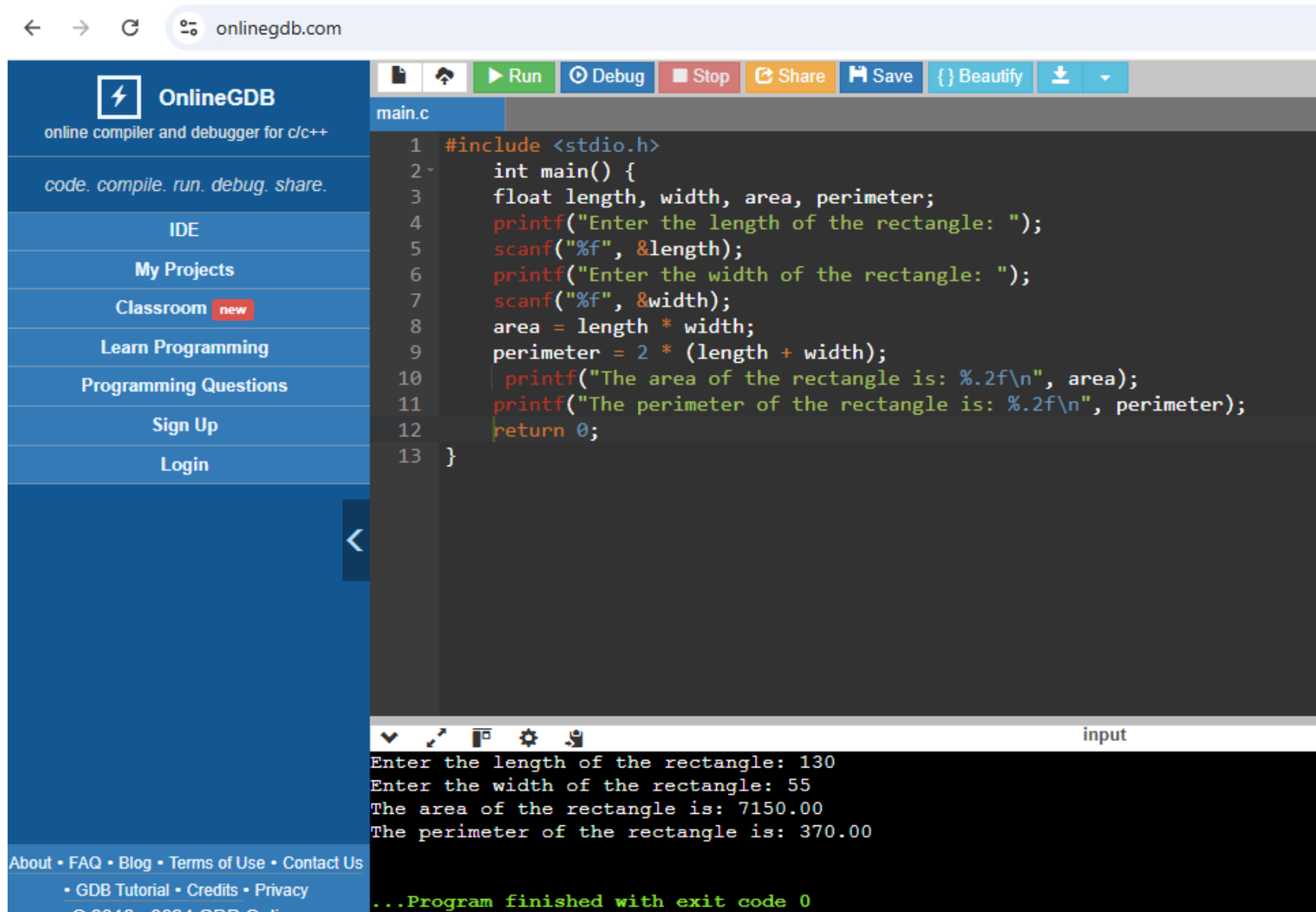
```
1  #include <stdio.h>
2
3  int main() {
4      int num1, num2, num3, num4, num5;
5      float average;
6      printf("Enter the first integer: ");
7      scanf("%d", &num1);
8      printf("Enter the second integer: ");
9      scanf("%d", &num2);
10     printf("Enter the third integer: ");
11     scanf("%d", &num3);
12     printf("Enter the fourth integer: ");
13     scanf("%d", &num4);
14     printf("Enter the fifth integer: ");
15     scanf("%d", &num5);
16     average = (num1 + num2 + num3 + num4 + num5) / 5.0;
17     printf("The average of the five integers is: %.2f\n", average);
18     return 0;
19 }
```

Below the code editor, the 'input' section shows the program's execution output:

```
Enter the first integer: 6
Enter the second integer: 87
Enter the third integer: 73
Enter the fourth integer: 5
Enter the fifth integer: 6
The average of the five integers is: 35.40
...Program finished with exit code 0
Press ENTER to exit console.
```

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Compute and display the area and perimeter of a rectangle given its length and width.



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The main area shows a C program in a file named main.c. The code is as follows:

```
1 #include <stdio.h>
2 int main() {
3     float length, width, area, perimeter;
4     printf("Enter the length of the rectangle: ");
5     scanf("%f", &length);
6     printf("Enter the width of the rectangle: ");
7     scanf("%f", &width);
8     area = length * width;
9     perimeter = 2 * (length + width);
10    printf("The area of the rectangle is: %.2f\n", area);
11    printf("The perimeter of the rectangle is: %.2f\n", perimeter);
12    return 0;
13 }
```

Below the code editor is an input/output window. The input section shows the user entering '130' for length and '55' for width. The output section shows the program's results: 'The area of the rectangle is: 7150.00' and 'The perimeter of the rectangle is: 370.00'. At the bottom, it states '...Program finished with exit code 0'.

Write a program to calculate the compound interest using the formula: $A = P \times (1 + (r/100))^n$ where P is the principal, r is the rate of interest, and n is the time period.

The screenshot shows the OnlineGDB web interface. On the left is a blue sidebar with navigation links: OnlineGDB, online compiler and debugger for c/c++, code. compile. run. debug. share., IDE, My Projects, Classroom (new), Learn Programming, Programming Questions, Sign Up, and Login. The main area displays a C program in a dark-themed editor. The program includes `<stdio.h>` and `<math.h>`, defines `main()`, and calculates compound interest using `pow()`. Below the editor is a terminal window showing the program's execution with input values 7000, 3, and 2, resulting in a compound amount of 7426.30 and a compound interest of 426.30. The terminal also shows the program finishing with exit code 0.

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main.c

```
1 #include <stdio.h>
2 #include <math.h>
3 int main() {
4     double principal, rate, time, amount, compound_interest;
5     printf("Enter the principal amount (P): ");
6     scanf("%lf", &principal);
7     printf("Enter the rate of interest (r) in percentage: ");
8     scanf("%lf", &rate);
9     printf("Enter the time period (n) in years: ");
10    scanf("%lf", &time);
11    amount = principal * pow((1 + rate / 100), time);
12    compound_interest = amount - principal;
13    printf("The compound amount (A) is: %.2f\n", amount);
14    printf("The compound interest is: %.2f\n", compound_interest);
15    return 0;
16 }
```

input

```
Enter the principal amount (P): 7000
Enter the rate of interest (r) in percentage: 3
Enter the time period (n) in years: 2
The compound amount (A) is: 7426.30
The compound interest is: 426.30

...Program finished with exit code 0
Press ENTER to exit console.
```

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Write a program to convert a temperature from Celsius to Fahrenheit using the formula:
 $F = (9/5) * C + 32$

The screenshot shows the OnlineGDB website interface. The browser address bar displays 'onlinegdb.com'. The left sidebar contains navigation links: 'IDE', 'My Projects', 'Classroom' (with a 'new' badge), 'Learn Programming', 'Programming Questions', 'Sign Up', and 'Login'. The main editor area shows a C program in 'main.c' with the following code:

```
1 #include <stdio.h>
2 int main()
3 {
4     float celsius, fahrenheit;
5     printf("Enter the temperature in Celsius: ");
6     scanf("%f", &celsius);
7     fahrenheit = (9.0 / 5.0) * celsius + 32;
8     printf("The temperature in Fahrenheit is: %.2f\n", fahrenheit);
9     return 0;
10 }
```

Below the editor, the console output is displayed under the 'input' tab:

```
Enter the temperature in Celsius: 25
The temperature in Fahrenheit is: 77.00

...Program finished with exit code 0
Press ENTER to exit console.
```

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Write a program to swap the values of two variables without using a third variable, relying only on arithmetic operations.

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```
1  #include <stdio.h>
2  int main()
3  {
4      int a, b;
5      printf("Enter the first integer (a): ");
6      scanf("%d", &a);
7      printf("Enter the second integer (b): ");
8      scanf("%d", &b);
9      printf("Before swapping: a = %d, b = %d\n", a, b);
10     a = a + b;
11     b = a - b;
12     a = a - b;
13     printf("After swapping: a = %d, b = %d\n", a, b);
14     return 0;
15 }
```

Below the code editor, the console output is displayed, showing the program's execution with input values 76 and 842. The output confirms the successful swap of the variables using arithmetic operations.

```
input
Enter the first integer (a): 76
Enter the second integer (b): 842
Before swapping: a = 76, b = 842
After swapping: a = 842, b = 76

...Program finished with exit code 0
Press ENTER to exit console.
```

Write a program to find the sum of the digits of a given three-digit number.

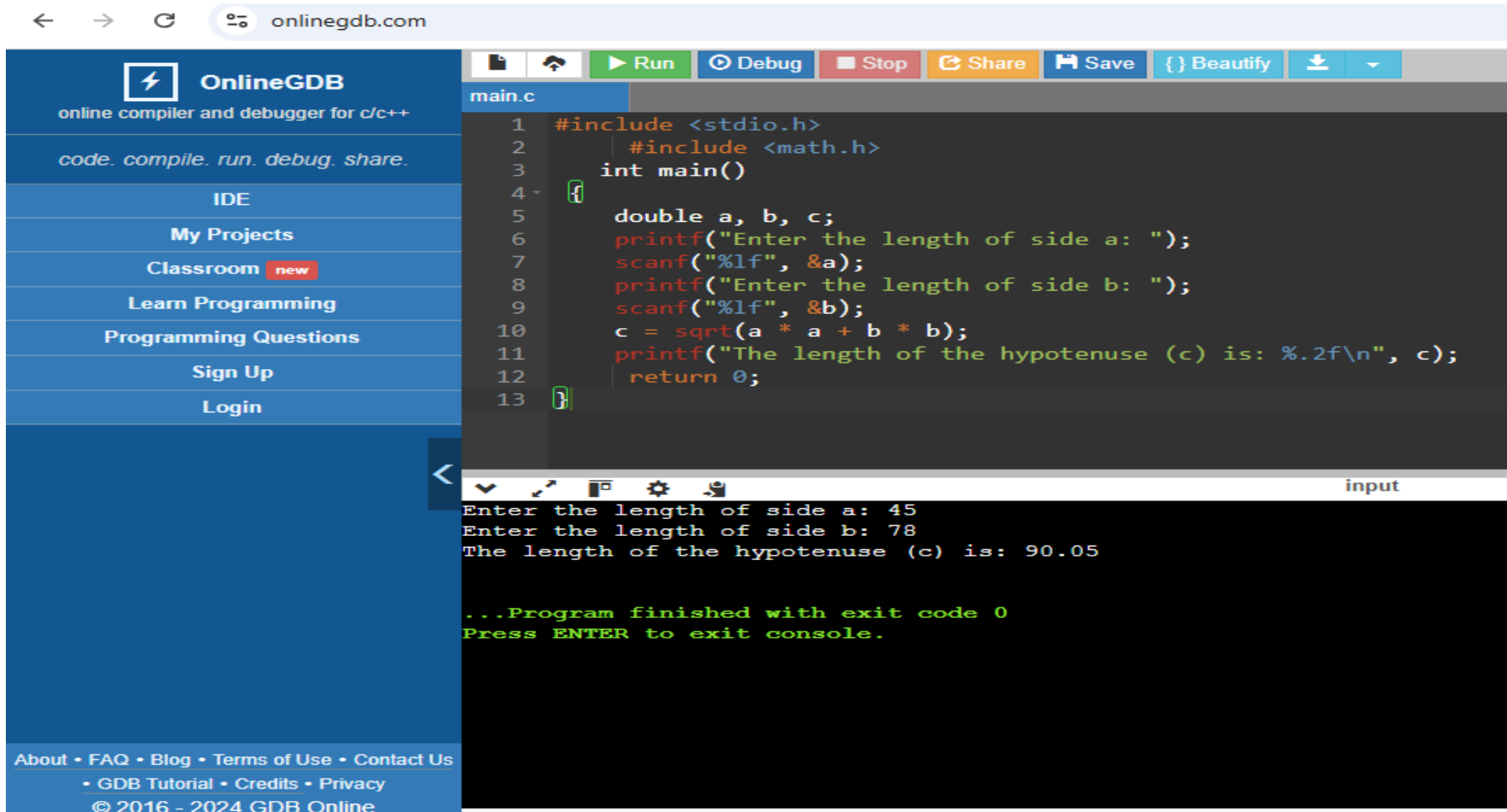
The screenshot shows the OnlineGDB web interface. The browser address bar displays 'onlinegdb.com'. The left sidebar contains navigation links: 'OnlineGDB' with a lightning bolt icon, 'online compiler and debugger for c/c++', 'code. compile. run. debug. share.', 'IDE', 'My Projects', 'Classroom' (with a 'new' badge), 'Learn Programming', 'Programming Questions', 'Sign Up', and 'Login'. The main editor area shows a C program in 'main.c' with the following code:

```
1  #include <stdio.h>
2  int main()
3  {
4      int number, sum = 0;
5      printf("Enter a three-digit number: ");
6      scanf("%d", &number);
7      if (number < 0) {
8          number = -number;
9      }
10     sum += number % 10;
11     number /= 10;
12     sum += number % 10;
13     number /= 10;
14     sum += number;
15     printf("The sum of the digits is: %d\n", sum);
16
17     return 0;
18 }
```

Below the code editor is a console window. The input '564' was entered, and the output shows the sum of digits as 15. The console also displays the message: '...Program finished with exit code 0' and 'Press ENTER to exit console.'

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Calculate the hypotenuse of a right triangle given the lengths of the other two sides using the formula: $C = \sqrt{a^2 + b^2}$



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```
main.c
1  #include <stdio.h>
2      #include <math.h>
3  int main()
4  {
5      double a, b, c;
6      printf("Enter the length of side a: ");
7      scanf("%lf", &a);
8      printf("Enter the length of side b: ");
9      scanf("%lf", &b);
10     c = sqrt(a * a + b * b);
11     printf("The length of the hypotenuse (c) is: %.2f\n", c);
12     return 0;
13 }
```

input

```
Enter the length of side a: 45
Enter the length of side b: 78
The length of the hypotenuse (c) is: 90.05

...Program finished with exit code 0
Press ENTER to exit console.
```


Write a program to calculate the circumference and area of a circle given its radius. Use the formulas:

Area: πr^2

Circumference: $2\pi r$

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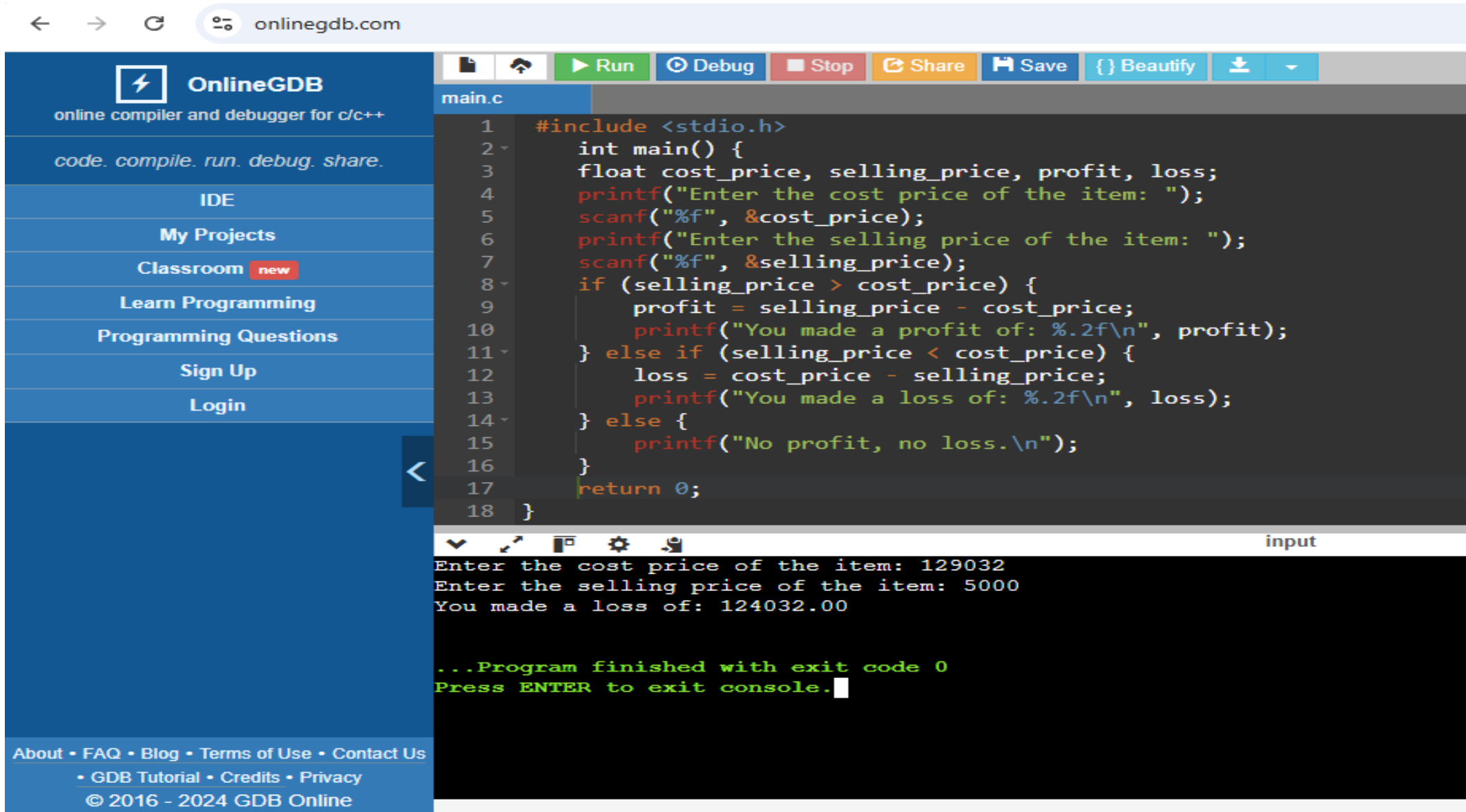
```
1 #include <stdio.h>
2 #define PI 3.14159
3 int main() {
4     double radius, area, circumference;
5     printf("Enter the radius of the circle: ");
6     scanf("%lf", &radius);
7     area = PI * radius * radius;
8     circumference = 2 * PI * radius;
9     printf("The area of the circle is: %.2f\n", area);
10    printf("The circumference of the circle is: %.2f\n", circumference);
11    return 0;
12 }
```

input

```
< Enter the radius of the circle: 12.56
The area of the circle is: 495.60
The circumference of the circle is: 78.92

...Program finished with exit code 0
Press ENTER to exit console.
```

Write a program to calculate the profit or loss made on a transaction given the cost price and selling price of an item.



The screenshot displays the OnlineGDB web interface. On the left is a blue sidebar with the OnlineGDB logo and navigation links: IDE, My Projects, Classroom (marked 'new'), Learn Programming, Programming Questions, Sign Up, and Login. At the bottom of the sidebar are links for About, FAQ, Blog, Terms of Use, Contact Us, GDB Tutorial, Credits, Privacy, and a copyright notice for 2016-2024 GDB Online. The main area features a toolbar with icons for file operations, a 'Run' button, 'Debug', 'Stop', 'Share', 'Save', 'Beautify', and download options. Below the toolbar, the file 'main.c' is open, showing a C program that calculates profit or loss based on user input for cost price and selling price. The program uses `scanf` for input and `printf` for output, with conditional logic to determine profit, loss, or no transaction. The output window at the bottom shows the program's execution with the input values 129032 and 5000, resulting in a loss of 124032.00, and a message indicating the program finished successfully.

```
1  #include <stdio.h>
2  int main() {
3      float cost_price, selling_price, profit, loss;
4      printf("Enter the cost price of the item: ");
5      scanf("%f", &cost_price);
6      printf("Enter the selling price of the item: ");
7      scanf("%f", &selling_price);
8      if (selling_price > cost_price) {
9          profit = selling_price - cost_price;
10         printf("You made a profit of: %.2f\n", profit);
11     } else if (selling_price < cost_price) {
12         loss = cost_price - selling_price;
13         printf("You made a loss of: %.2f\n", loss);
14     } else {
15         printf("No profit, no loss.\n");
16     }
17     return 0;
18 }
```

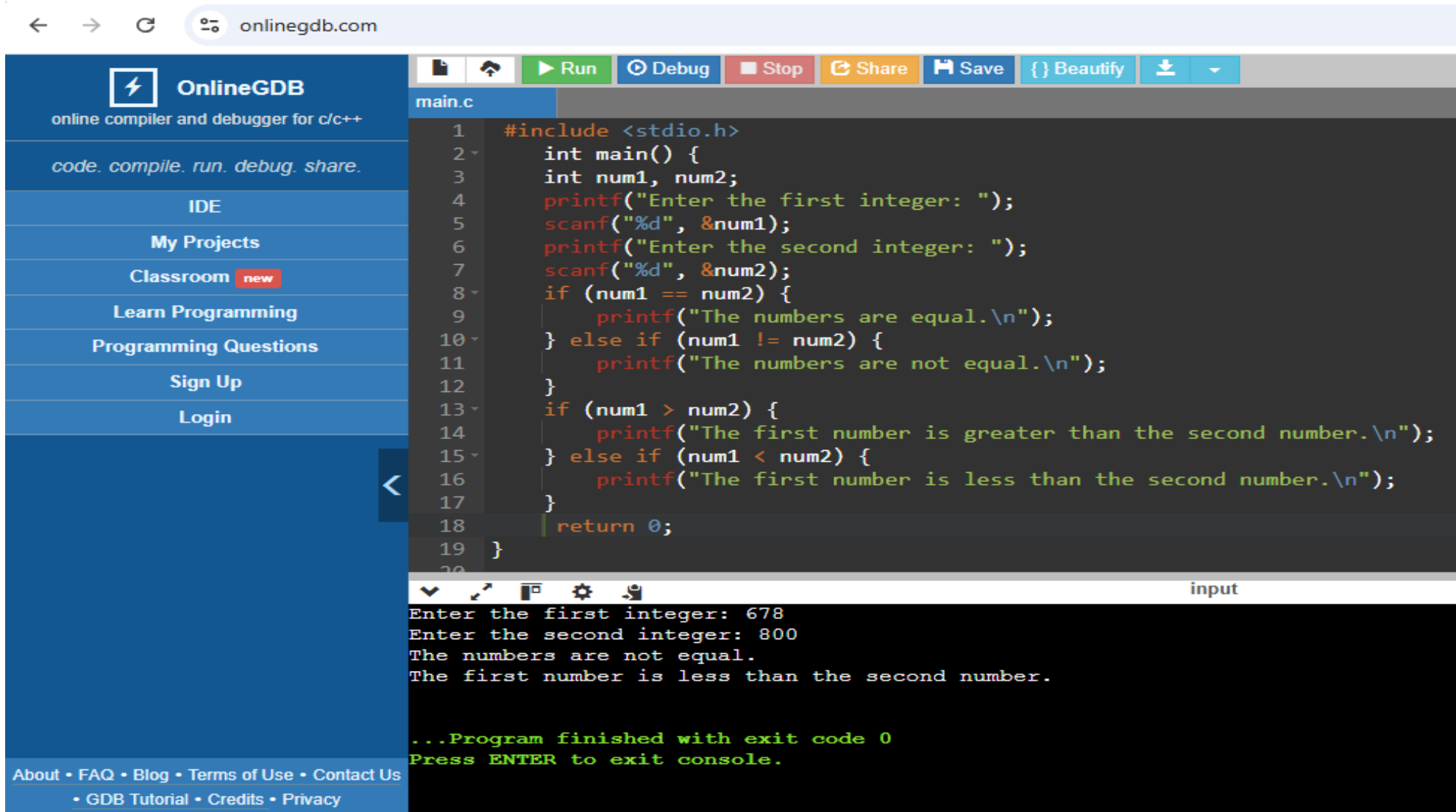
input

```
Enter the cost price of the item: 129032
Enter the selling price of the item: 5000
You made a loss of: 124032.00

...Program finished with exit code 0
Press ENTER to exit console.
```

Compare Two Numbers:

Write a program to check if two integers are equal, not equal, greater than, or less than each other using relational operators.



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```
1  #include <stdio.h>
2  int main() {
3      int num1, num2;
4      printf("Enter the first integer: ");
5      scanf("%d", &num1);
6      printf("Enter the second integer: ");
7      scanf("%d", &num2);
8      if (num1 == num2) {
9          printf("The numbers are equal.\n");
10     } else if (num1 != num2) {
11         printf("The numbers are not equal.\n");
12     }
13     if (num1 > num2) {
14         printf("The first number is greater than the second number.\n");
15     } else if (num1 < num2) {
16         printf("The first number is less than the second number.\n");
17     }
18     return 0;
19 }
```

Below the code editor, the 'input' section shows the program's execution output:

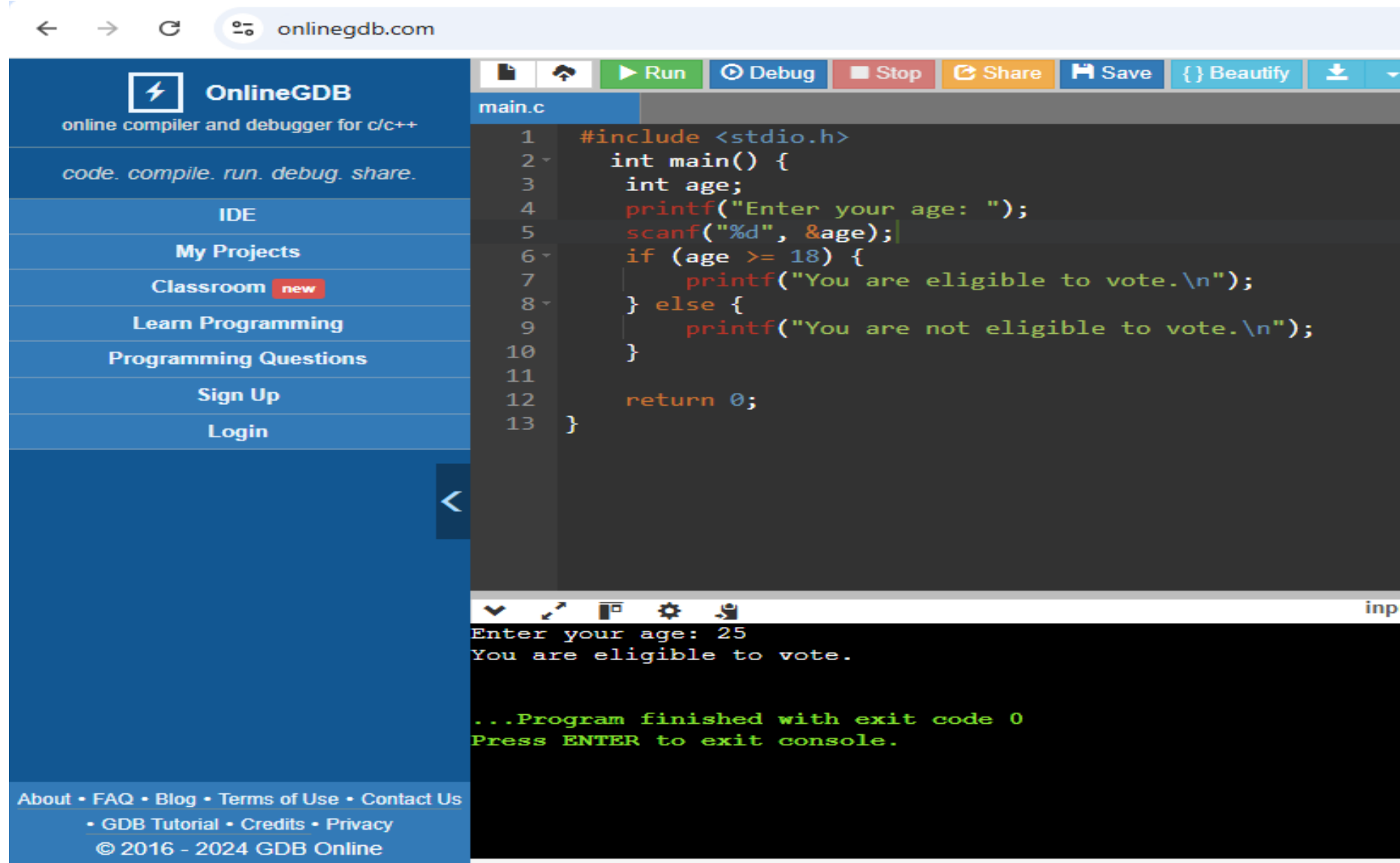
```
Enter the first integer: 678
Enter the second integer: 800
The numbers are not equal.
The first number is less than the second number.

...Program finished with exit code 0
Press ENTER to exit console.
```

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Eligibility for Voting:

Determine whether a person is eligible to vote based on their age (age must be greater than or equal to 18).



The screenshot shows the OnlineGDB website interface. The browser address bar displays 'onlinegdb.com'. The left sidebar contains navigation links: 'IDE', 'My Projects', 'Classroom new', 'Learn Programming', 'Programming Questions', 'Sign Up', and 'Login'. The main editor area shows a C program named 'main.c' with the following code:

```
1  #include <stdio.h>
2  int main() {
3      int age;
4      printf("Enter your age: ");
5      scanf("%d", &age);
6      if (age >= 18) {
7          printf("You are eligible to vote.\n");
8      } else {
9          printf("You are not eligible to vote.\n");
10     }
11
12     return 0;
13 }
```

Below the code editor, the console output shows the program's execution:

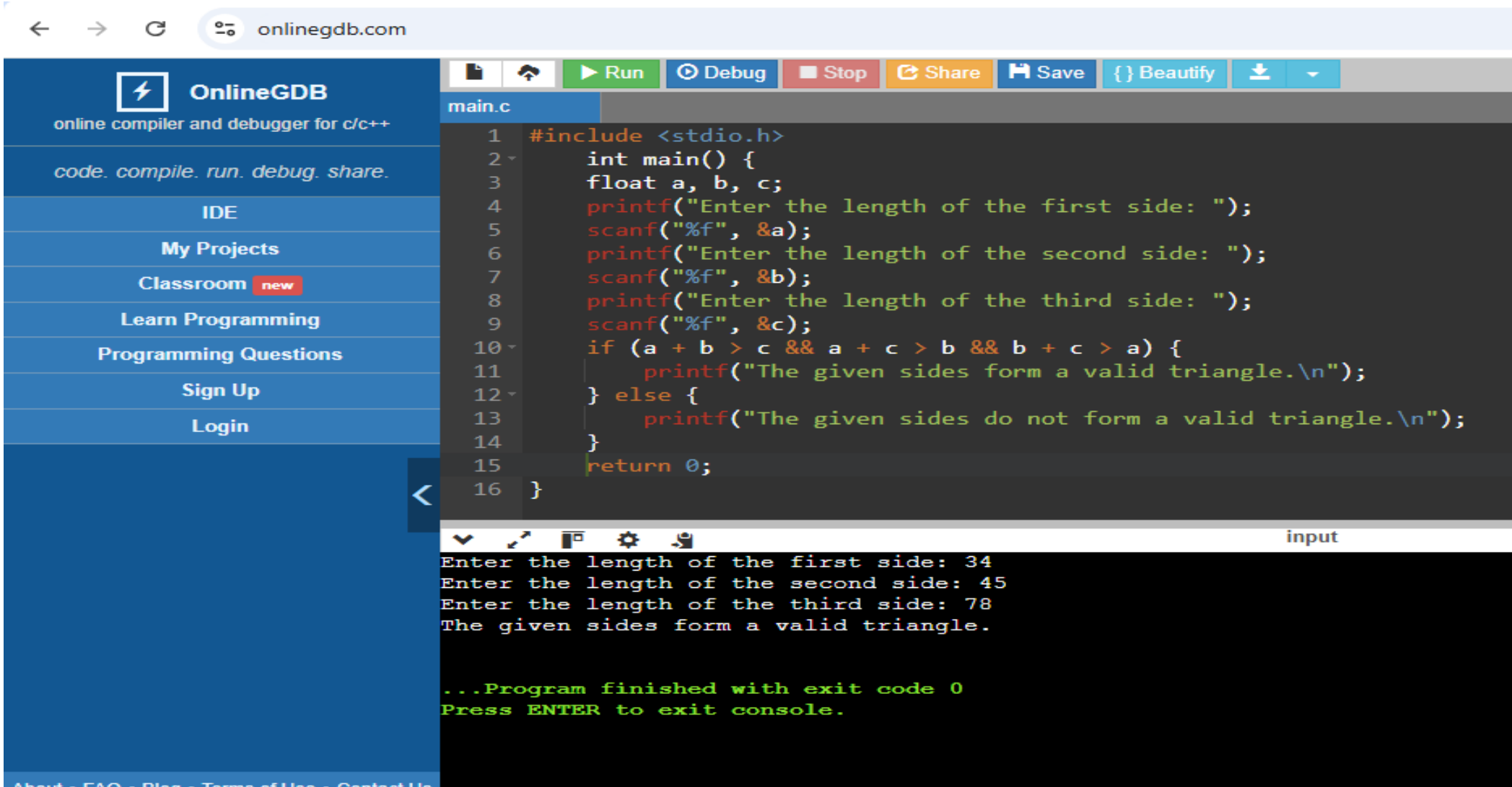
```
Enter your age: 25
You are eligible to vote.

...Program finished with exit code 0
Press ENTER to exit console.
```

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Triangle Validity Check:

Given three sides of a triangle, use relational operators to check if the triangle is valid (the sum of any two sides must be greater than the third side).



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```
1  #include <stdio.h>
2  int main() {
3      float a, b, c;
4      printf("Enter the length of the first side: ");
5      scanf("%f", &a);
6      printf("Enter the length of the second side: ");
7      scanf("%f", &b);
8      printf("Enter the length of the third side: ");
9      scanf("%f", &c);
10     if (a + b > c && a + c > b && b + c > a) {
11         printf("The given sides form a valid triangle.\n");
12     } else {
13         printf("The given sides do not form a valid triangle.\n");
14     }
15     return 0;
16 }
```

Below the code editor is a terminal window labeled 'input' showing the program's execution:

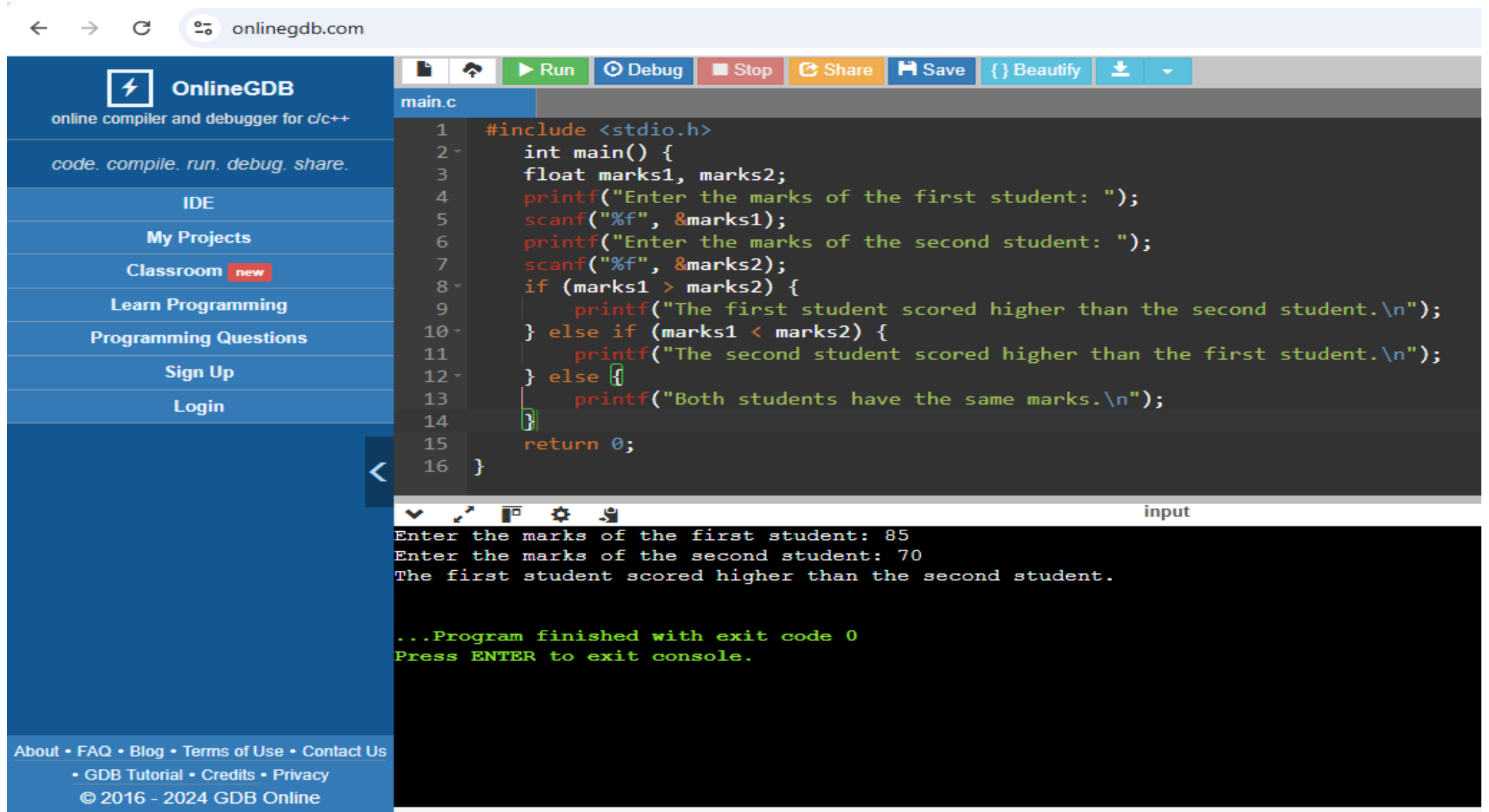
```
Enter the length of the first side: 34
Enter the length of the second side: 45
Enter the length of the third side: 78
The given sides form a valid triangle.

...Program finished with exit code 0
Press ENTER to exit console.
```

At the bottom of the sidebar, there are links for 'About', 'FAQ', 'Blog', 'Terms of Use', and 'Contact Us'.

Student Grade Comparison:

Compare the marks of two students to determine who scored higher, or if they have the same marks.



The screenshot displays the OnlineGDB web interface. The left sidebar contains navigation links: OnlineGDB, code. compile. run. debug. share., IDE, My Projects, Classroom (new), Learn Programming, Programming Questions, Sign Up, and Login. The main area shows a C program in a file named main.c. The program prompts for marks from two students and compares them. The console output shows the program running successfully with the first student's mark (85) being higher than the second's (70).

```
1  #include <stdio.h>
2  int main() {
3      float marks1, marks2;
4      printf("Enter the marks of the first student: ");
5      scanf("%f", &marks1);
6      printf("Enter the marks of the second student: ");
7      scanf("%f", &marks2);
8      if (marks1 > marks2) {
9          printf("The first student scored higher than the second student.\n");
10     } else if (marks1 < marks2) {
11         printf("The second student scored higher than the first student.\n");
12     } else {
13         printf("Both students have the same marks.\n");
14     }
15     return 0;
16 }
```

input

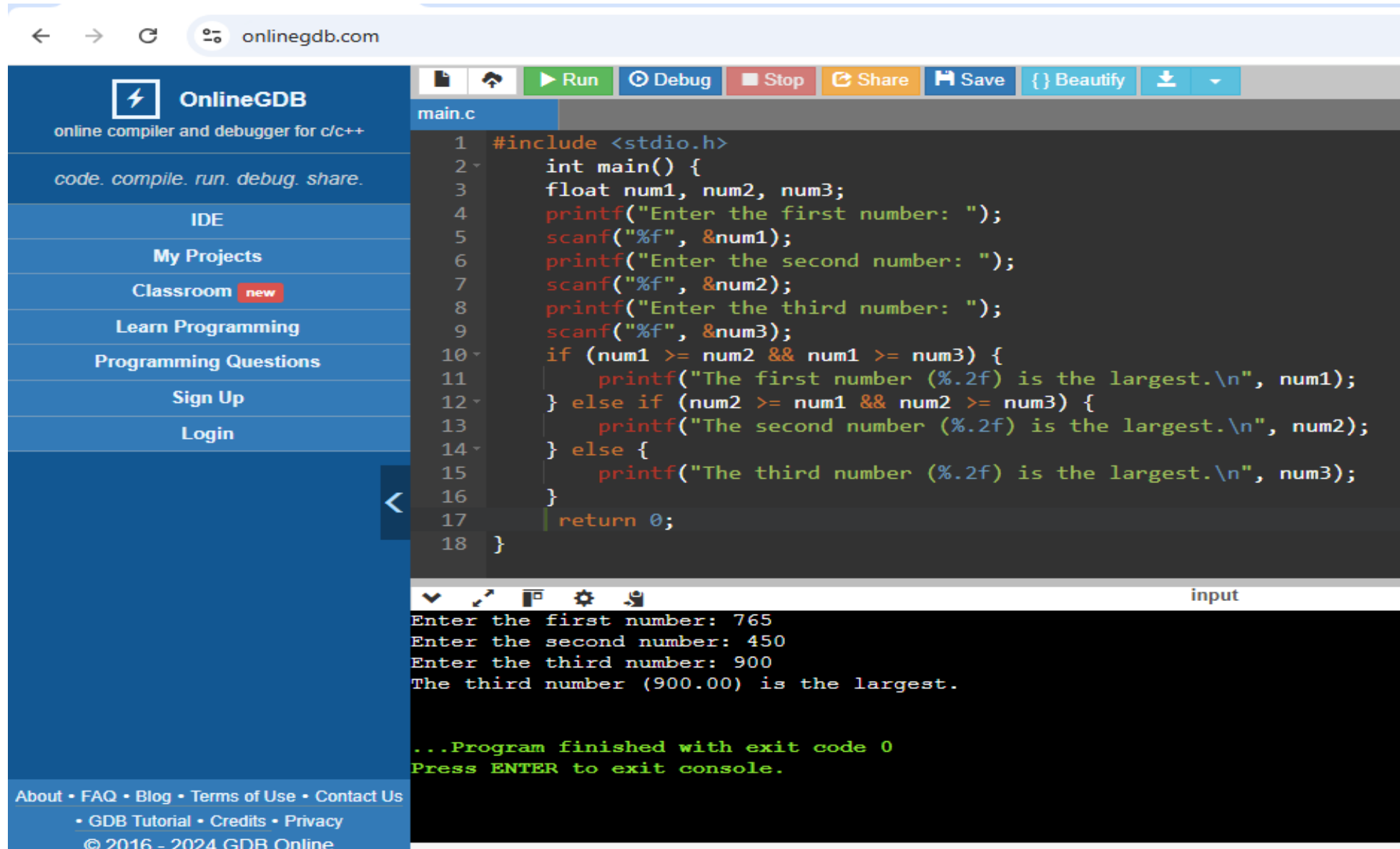
```
Enter the marks of the first student: 85
Enter the marks of the second student: 70
The first student scored higher than the second student.

...Program finished with exit code 0
Press ENTER to exit console.
```

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Find the Largest of Three Numbers:

Write a program to compare three numbers and determine the largest number using relational operators.



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```
1 #include <stdio.h>
2 int main() {
3     float num1, num2, num3;
4     printf("Enter the first number: ");
5     scanf("%f", &num1);
6     printf("Enter the second number: ");
7     scanf("%f", &num2);
8     printf("Enter the third number: ");
9     scanf("%f", &num3);
10    if (num1 >= num2 && num1 >= num3) {
11        printf("The first number (%.2f) is the largest.\n", num1);
12    } else if (num2 >= num1 && num2 >= num3) {
13        printf("The second number (%.2f) is the largest.\n", num2);
14    } else {
15        printf("The third number (%.2f) is the largest.\n", num3);
16    }
17    return 0;
18 }
```

Below the code editor is a console window with the following output:

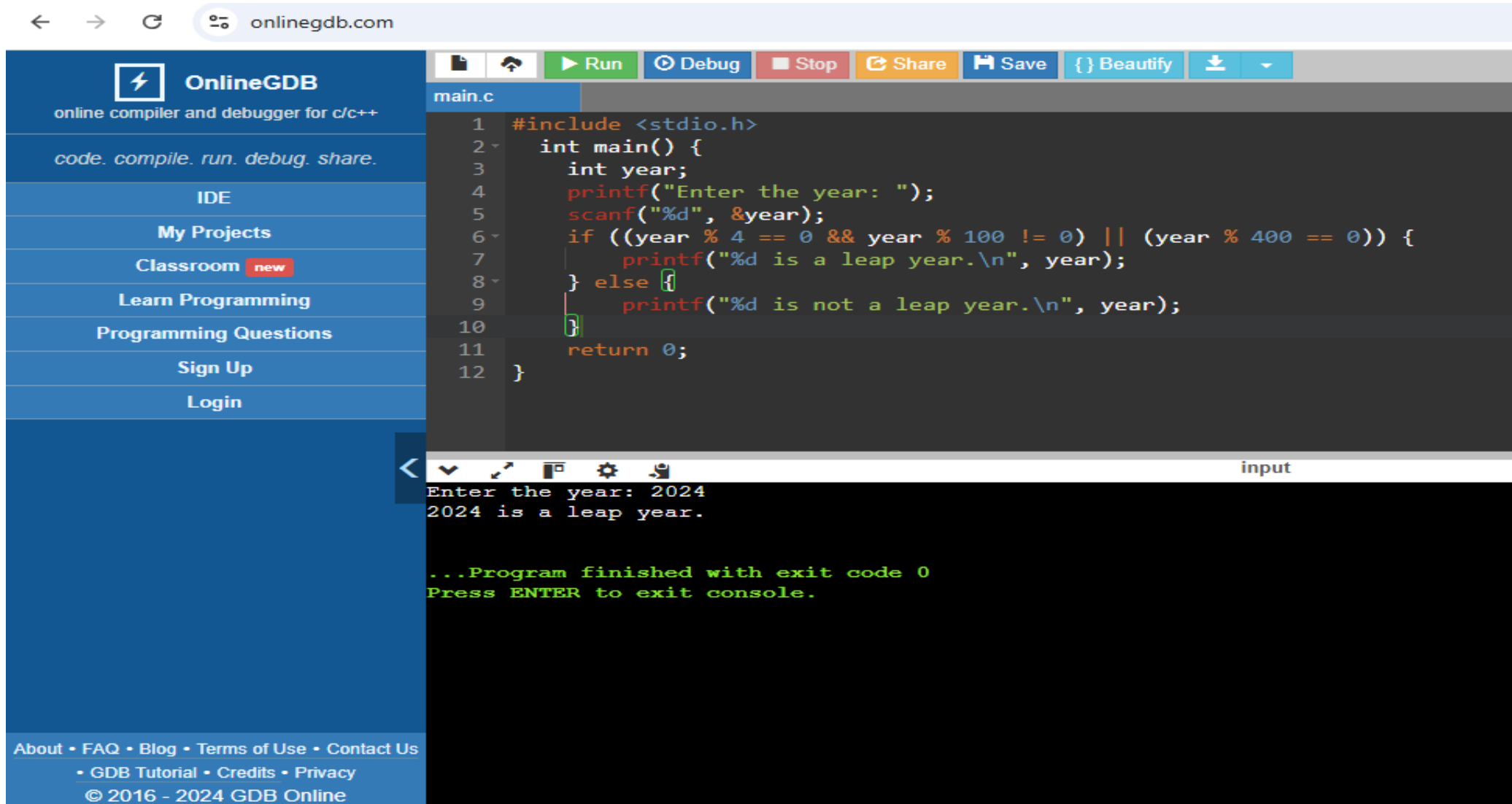
```
Enter the first number: 765
Enter the second number: 450
Enter the third number: 900
The third number (900.00) is the largest.

...Program finished with exit code 0
Press ENTER to exit console.
```

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Leap Year Check:

Use relational operators to determine if a given year is a leap year (divisible by 4 but not by 100 unless divisible by 400).



The screenshot displays the OnlineGDB web interface. The browser's address bar shows 'onlinegdb.com'. The left sidebar contains navigation links: 'OnlineGDB' (with a lightning bolt icon), 'online compiler and debugger for c/c++', 'code. compile. run. debug. share.', 'IDE', 'My Projects', 'Classroom' (marked 'new'), 'Learn Programming', 'Programming Questions', 'Sign Up', and 'Login'. The main area features a toolbar with 'Run', 'Debug', 'Stop', 'Share', 'Save', 'Beautify', and download/upload icons. Below the toolbar, a file explorer shows 'main.c' selected. The code editor contains the following C program:

```
1 #include <stdio.h>
2 int main() {
3     int year;
4     printf("Enter the year: ");
5     scanf("%d", &year);
6     if ((year % 4 == 0 && year % 100 != 0) || (year % 400 == 0)) {
7         printf("%d is a leap year.\n", year);
8     } else {
9         printf("%d is not a leap year.\n", year);
10    }
11    return 0;
12 }
```

Below the code editor is a console window with the following output:

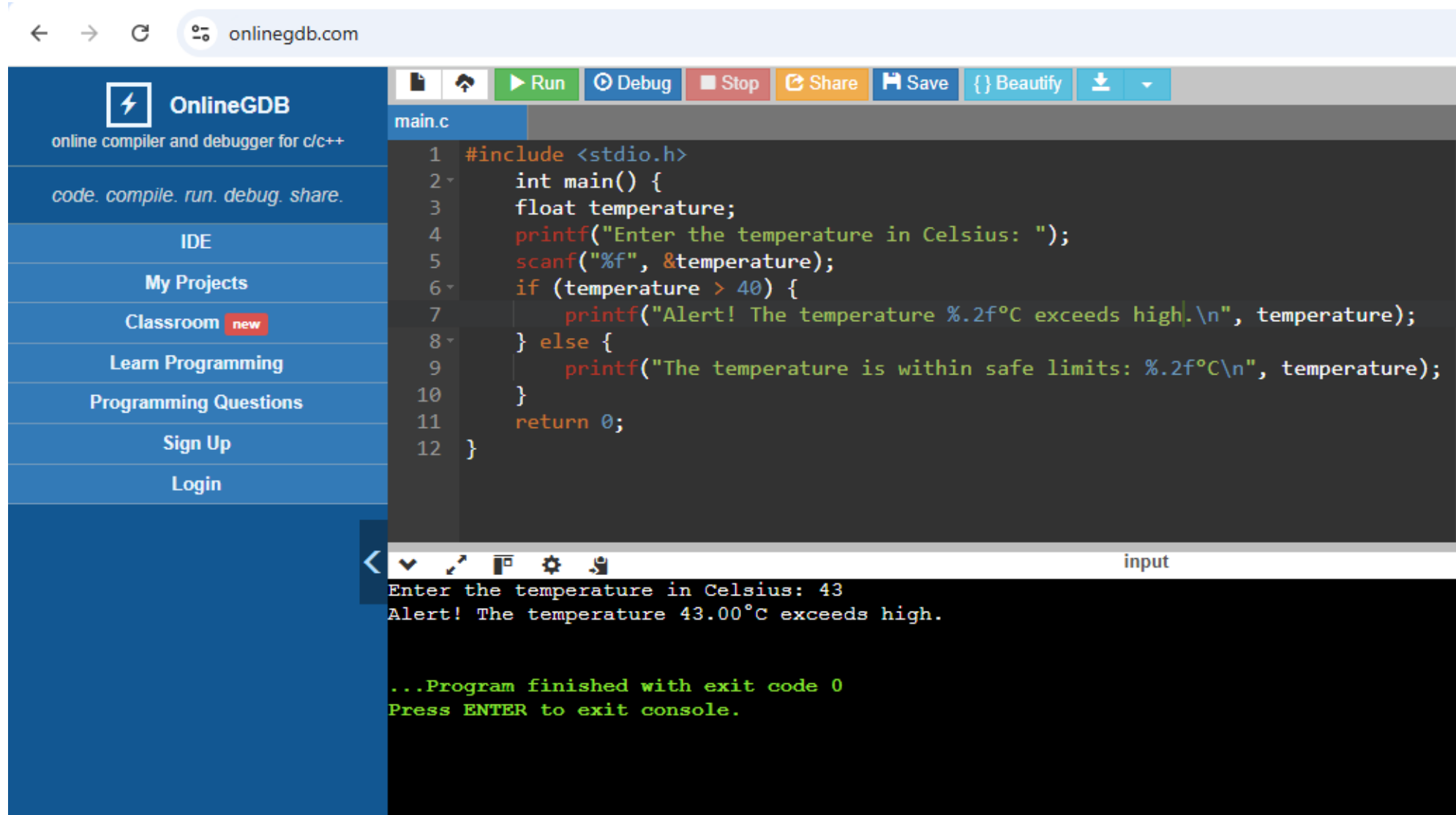
```
Enter the year: 2024
2024 is a leap year.

...Program finished with exit code 0
Press ENTER to exit console.
```

The footer of the page includes links for 'About', 'FAQ', 'Blog', 'Terms of Use', 'Contact Us', 'GDB Tutorial', 'Credits', 'Privacy', and a copyright notice: '© 2016 - 2024 GDB Online'.

Temperature Alert:

Write a program to check if the temperature exceeds a threshold value (e.g., greater than 40 degrees Celsius) and display an alert message.



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```
1 #include <stdio.h>
2 int main() {
3     float temperature;
4     printf("Enter the temperature in Celsius: ");
5     scanf("%f", &temperature);
6     if (temperature > 40) {
7         printf("Alert! The temperature %.2f°C exceeds high.\n", temperature);
8     } else {
9         printf("The temperature is within safe limits: %.2f°C\n", temperature);
10    }
11    return 0;
12 }
```

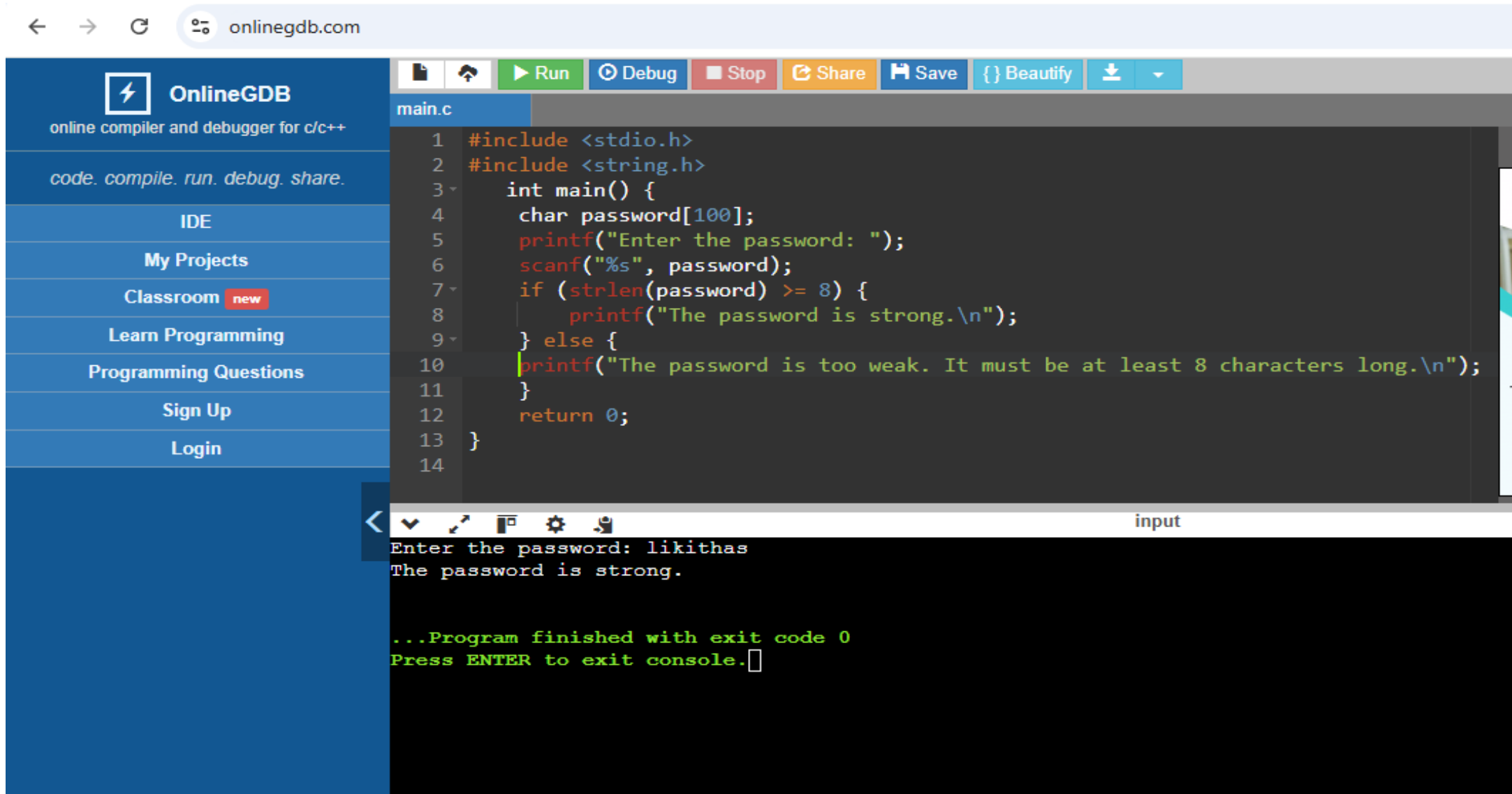
Below the code editor, the console output is visible, showing the program's execution with input '43':

```
Enter the temperature in Celsius: 43
Alert! The temperature 43.00°C exceeds high.

...Program finished with exit code 0
Press ENTER to exit console.
```

Password Strength Validation:

Given the length of a password, check if it meets the minimum requirement of 8 characters using relational operators.



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```
1 #include <stdio.h>
2 #include <string.h>
3 int main() {
4     char password[100];
5     printf("Enter the password: ");
6     scanf("%s", password);
7     if (strlen(password) >= 8) {
8         printf("The password is strong.\n");
9     } else {
10        printf("The password is too weak. It must be at least 8 characters long.\n");
11    }
12    return 0;
13 }
14
```

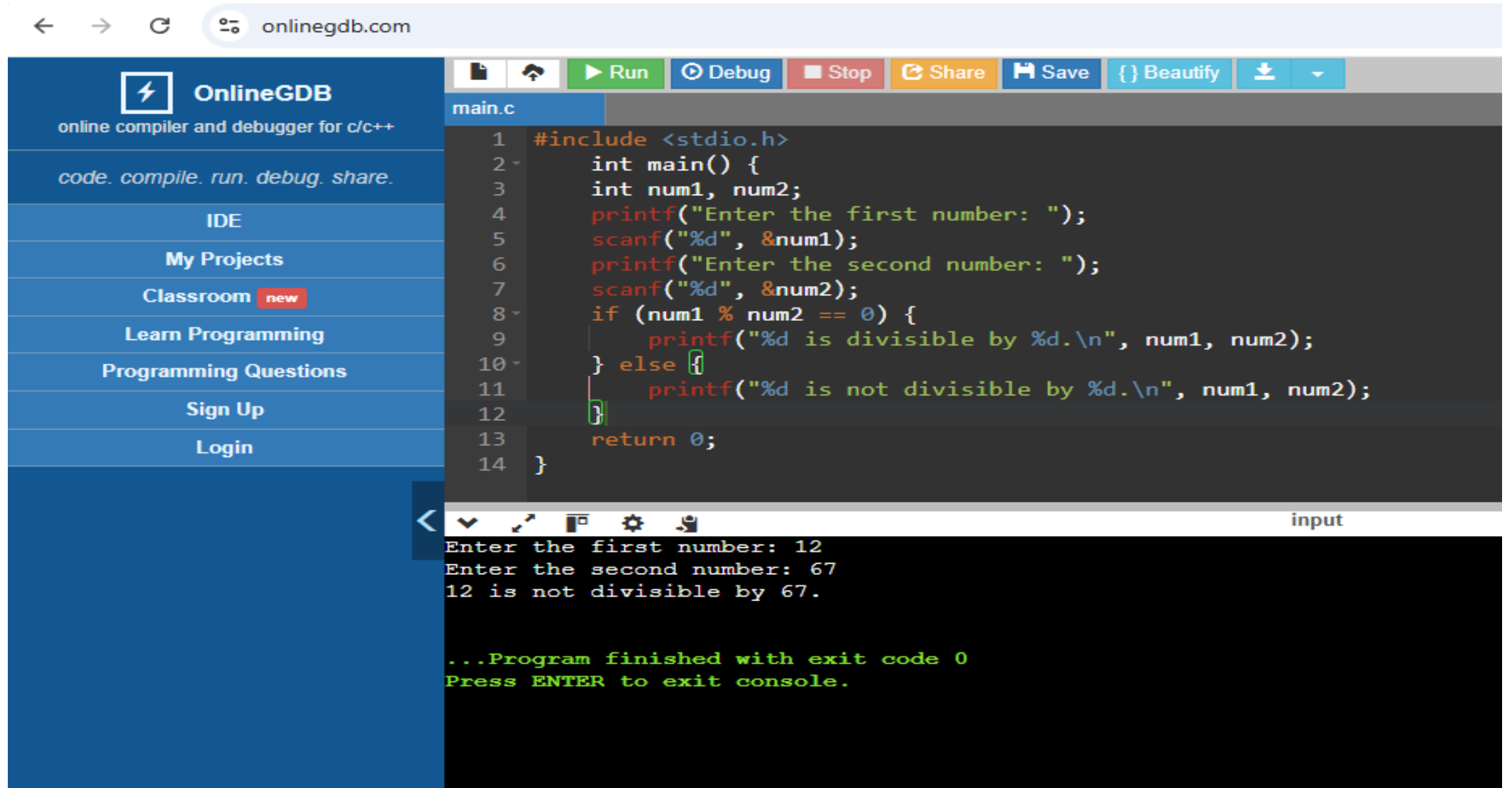
Below the code editor, the console output is visible, showing the program's execution:

```
Enter the password: likithas
The password is strong.

...Program finished with exit code 0
Press ENTER to exit console.
```

Check Divisibility:

Write a program to determine if one number is divisible by another using relational operators.



The screenshot displays the OnlineGDB interface. On the left is a sidebar with navigation links: OnlineGDB, code. compile. run. debug. share., IDE, My Projects, Classroom (new), Learn Programming, Programming Questions, Sign Up, and Login. The main area shows a C program in a file named main.c. The code is as follows:

```
1 #include <stdio.h>
2 int main() {
3     int num1, num2;
4     printf("Enter the first number: ");
5     scanf("%d", &num1);
6     printf("Enter the second number: ");
7     scanf("%d", &num2);
8     if (num1 % num2 == 0) {
9         printf("%d is divisible by %d.\n", num1, num2);
10    } else {
11        printf("%d is not divisible by %d.\n", num1, num2);
12    }
13    return 0;
14 }
```

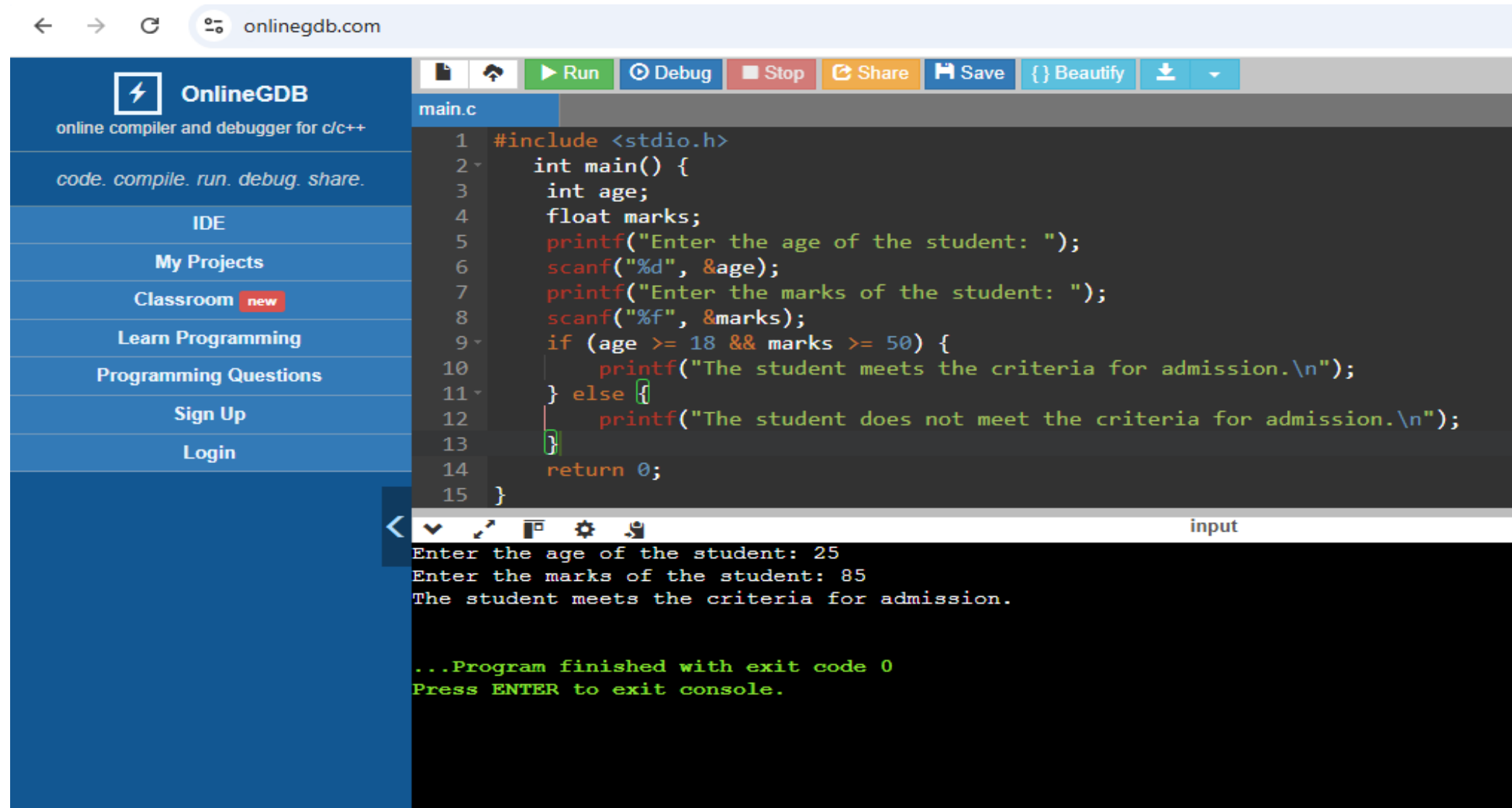
Below the code editor is a console window. The input shows the user entering '12' for the first number and '67' for the second number. The output of the program is '12 is not divisible by 67.' followed by a message indicating the program finished with exit code 0.

```
input
Enter the first number: 12
Enter the second number: 67
12 is not divisible by 67.

...Program finished with exit code 0
Press ENTER to exit console.
```

Admission Criteria:

Check if a student meets the criteria for admission to a course based on their age (greater than or equal to 18) and marks (greater than or equal to 50).



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```
1 #include <stdio.h>
2 int main() {
3     int age;
4     float marks;
5     printf("Enter the age of the student: ");
6     scanf("%d", &age);
7     printf("Enter the marks of the student: ");
8     scanf("%f", &marks);
9     if (age >= 18 && marks >= 50) {
10         printf("The student meets the criteria for admission.\n");
11     } else {
12         printf("The student does not meet the criteria for admission.\n");
13     }
14     return 0;
15 }
```

Below the code editor, the 'input' tab shows the program's execution output:

```
Enter the age of the student: 25
Enter the marks of the student: 85
The student meets the criteria for admission.

...Program finished with exit code 0
Press ENTER to exit console.
```

Write a Program to calculate the total distance between A and B. Where $AC = 160$, $CB = 50$

The screenshot shows the OnlineGDB web interface. The browser address bar displays 'onlinegdb.com'. The left sidebar contains navigation links: 'OnlineGDB', 'online compiler and debugger for c/c++', 'code. compile. run. debug. share.', 'IDE', 'My Projects', 'Classroom' (with a 'new' badge), 'Learn Programming', 'Programming Questions', 'Sign Up', and 'Login'. The top toolbar includes icons for file operations and buttons for 'Run', 'Debug', 'Stop', 'Share', 'Save', 'Beautify', and download options. The main editor area, titled 'main.c', contains the following C code:

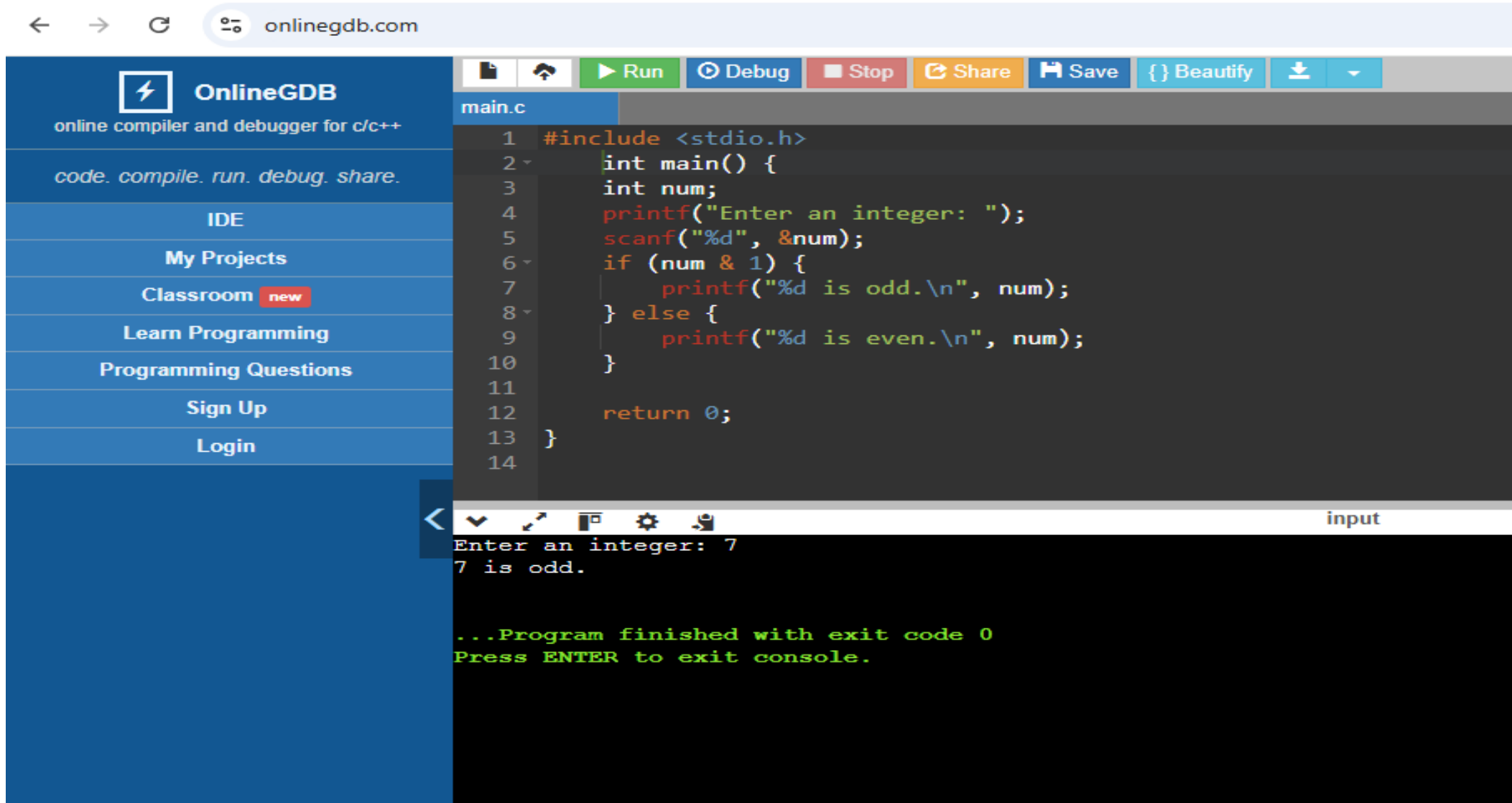
```
1  #include <stdio.h>
2  int main()
3  {
4      int AC= 160;
5      int CB= 50;
6      int totaldistance;
7      totaldistance= AC+CB;
8      printf("the distance between A and B is:%d\n", totaldistance);
9      return 0;
10
11 }
```

Below the code editor is a console window with a toolbar and an 'input' label. The console output shows the program's execution:

```
the distance between A and B is:210

...Program finished with exit code 0
Press ENTER to exit console.
```

Write a program to check wheather a number is even or odd without using modulus operator.



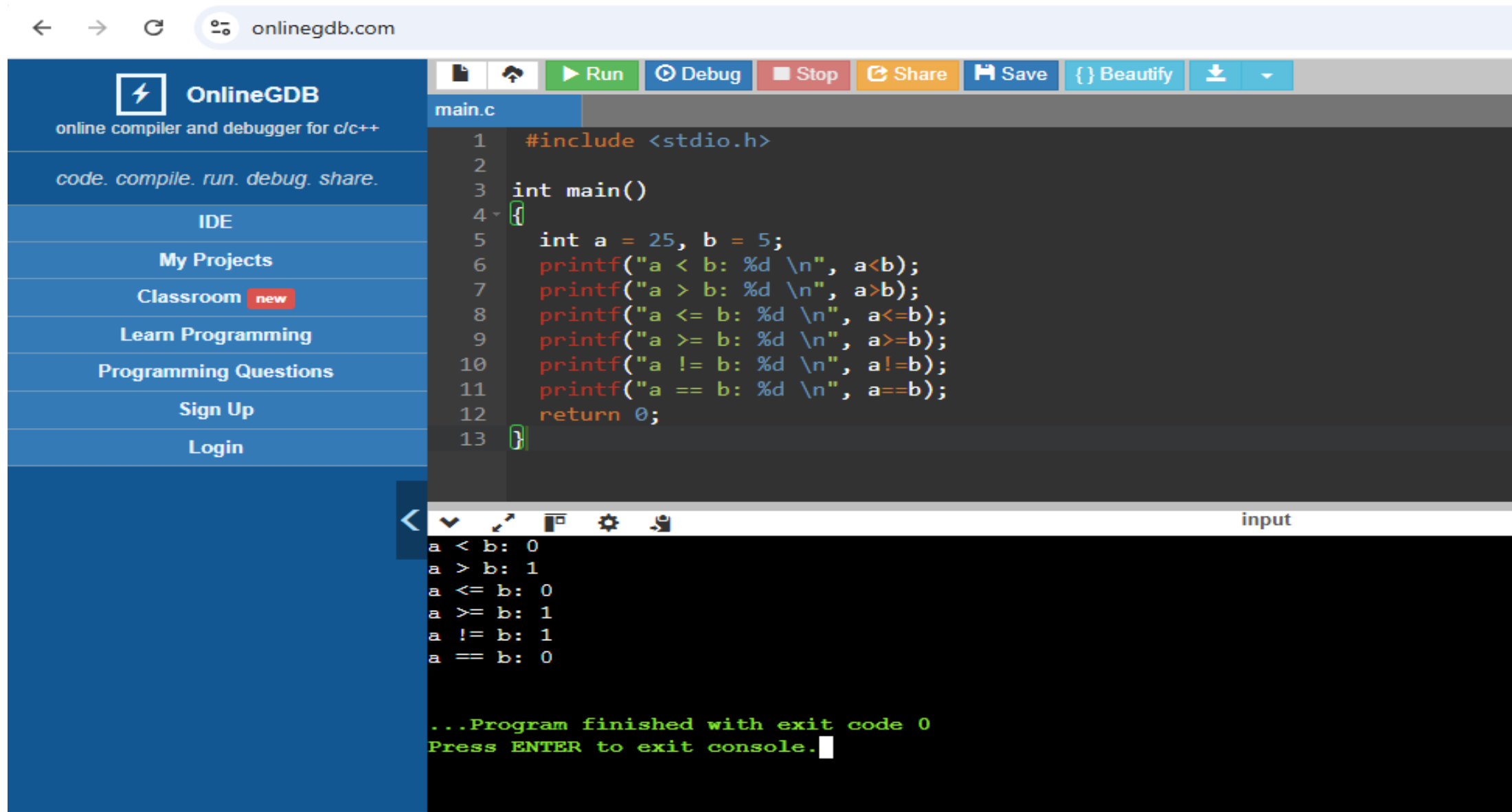
The screenshot displays the OnlineGDB web interface. On the left is a sidebar with navigation links: OnlineGDB, code. compile. run. debug. share., IDE, My Projects, Classroom (with a 'new' badge), Learn Programming, Programming Questions, Sign Up, and Login. The top of the editor features a toolbar with icons for file operations and buttons for Run, Debug, Stop, Share, Save, Beautify, and a download icon. The main editor area shows a C program in a file named 'main.c'. The code uses a bitwise AND operator (& 1) to check for odd numbers. Below the code editor is a console window with a toolbar and a label 'input'. The console output shows the program's execution: 'Enter an integer: 7', '7 is odd.', and a completion message: '...Program finished with exit code 0 Press ENTER to exit console.'

```
1  #include <stdio.h>
2  int main() {
3      int num;
4      printf("Enter an integer: ");
5      scanf("%d", &num);
6      if (num & 1) {
7          printf("%d is odd.\n", num);
8      } else {
9          printf("%d is even.\n", num);
10     }
11
12     return 0;
13 }
14
```

Enter an integer: 7
7 is odd.

...Program finished with exit code 0
Press ENTER to exit console.

Write a Program to show case the usage of all Relational Operator.



The screenshot shows the OnlineGDB interface. The left sidebar contains navigation links: OnlineGDB, online compiler and debugger for c/c++, code. compile. run. debug. share., IDE, My Projects, Classroom (new), Learn Programming, Programming Questions, Sign Up, and Login. The top toolbar includes icons for file operations, a Run button, Debug, Stop, Share, Save, Beautify, and download. The main editor displays a C program named main.c with the following code:

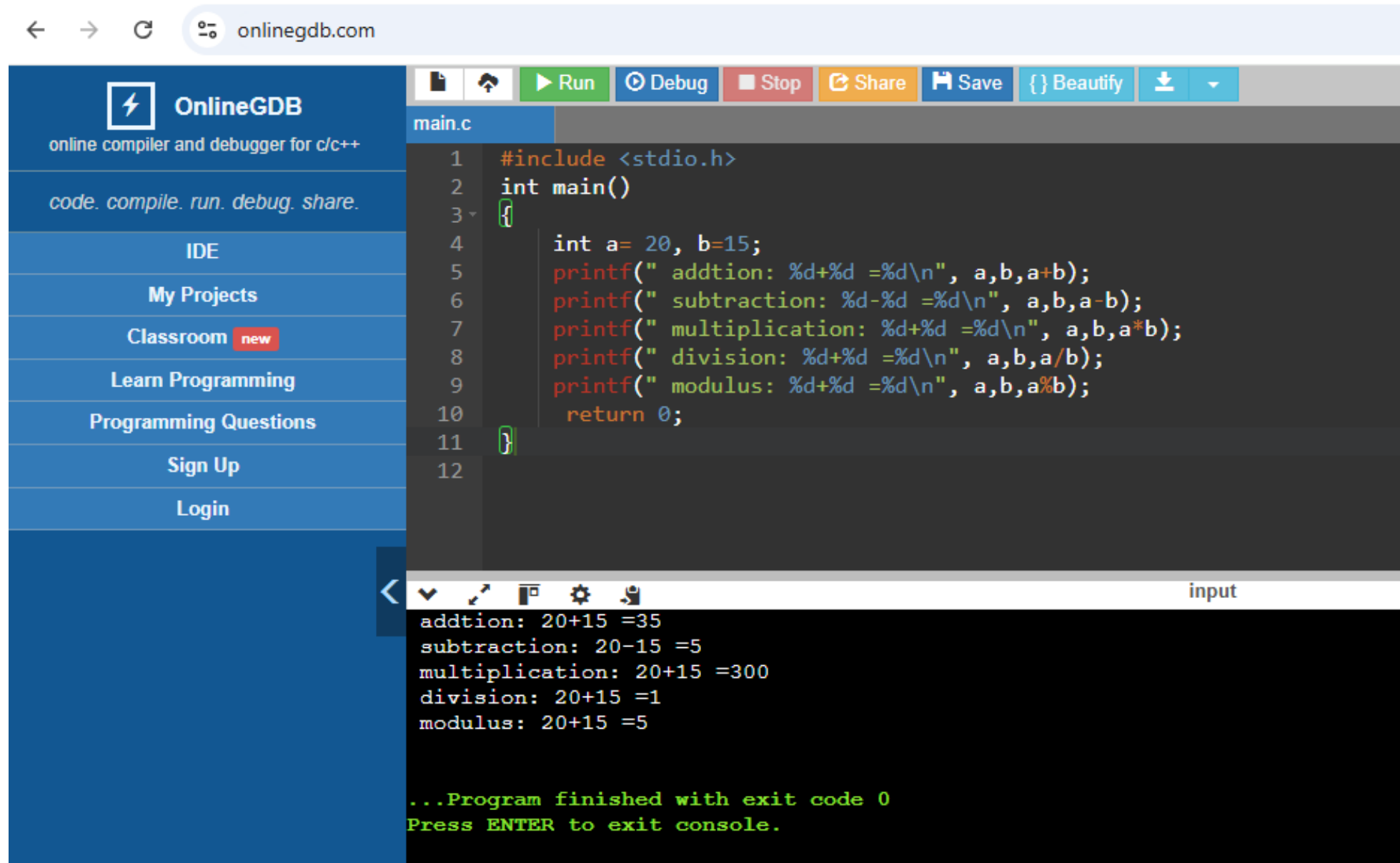
```
1  #include <stdio.h>
2
3  int main()
4  {
5      int a = 25, b = 5;
6      printf("a < b: %d \n", a<b);
7      printf("a > b: %d \n", a>b);
8      printf("a <= b: %d \n", a<=b);
9      printf("a >= b: %d \n", a>=b);
10     printf("a != b: %d \n", a!=b);
11     printf("a == b: %d \n", a==b);
12     return 0;
13 }
```

Below the code editor is a console window with the following output:

```
a < b: 0
a > b: 1
a <= b: 0
a >= b: 1
a != b: 1
a == b: 0

...Program finished with exit code 0
Press ENTER to exit console.
```

Write a program to show case the usage of all the arithmetic operators.



The screenshot shows the OnlineGDB web interface. The browser address bar displays 'onlinegdb.com'. The left sidebar contains navigation links: 'OnlineGDB', 'online compiler and debugger for c/c++', 'code. compile. run. debug. share.', 'IDE', 'My Projects', 'Classroom new', 'Learn Programming', 'Programming Questions', 'Sign Up', and 'Login'. The top toolbar includes icons for file operations and buttons for 'Run', 'Debug', 'Stop', 'Share', 'Save', 'Beautify', and download. The main editor area, titled 'main.c', contains the following C code:

```
1  #include <stdio.h>
2  int main()
3  {
4      int a= 20, b=15;
5      printf(" addition: %d+%d =%d\n", a,b,a+b);
6      printf(" subtraction: %d-%d =%d\n", a,b,a-b);
7      printf(" multiplication: %d+%d =%d\n", a,b,a*b);
8      printf(" division: %d+%d =%d\n", a,b,a/b);
9      printf(" modulus: %d+%d =%d\n", a,b,a%b);
10     return 0;
11 }
12
```

Below the code editor is a console window with a toolbar and the label 'input'. It displays the program's output:

```
addtion: 20+15 =35
subtraction: 20-15 =5
multiplication: 20+15 =300
division: 20+15 =1
modulus: 20+15 =5

...Program finished with exit code 0
Press ENTER to exit console.
```