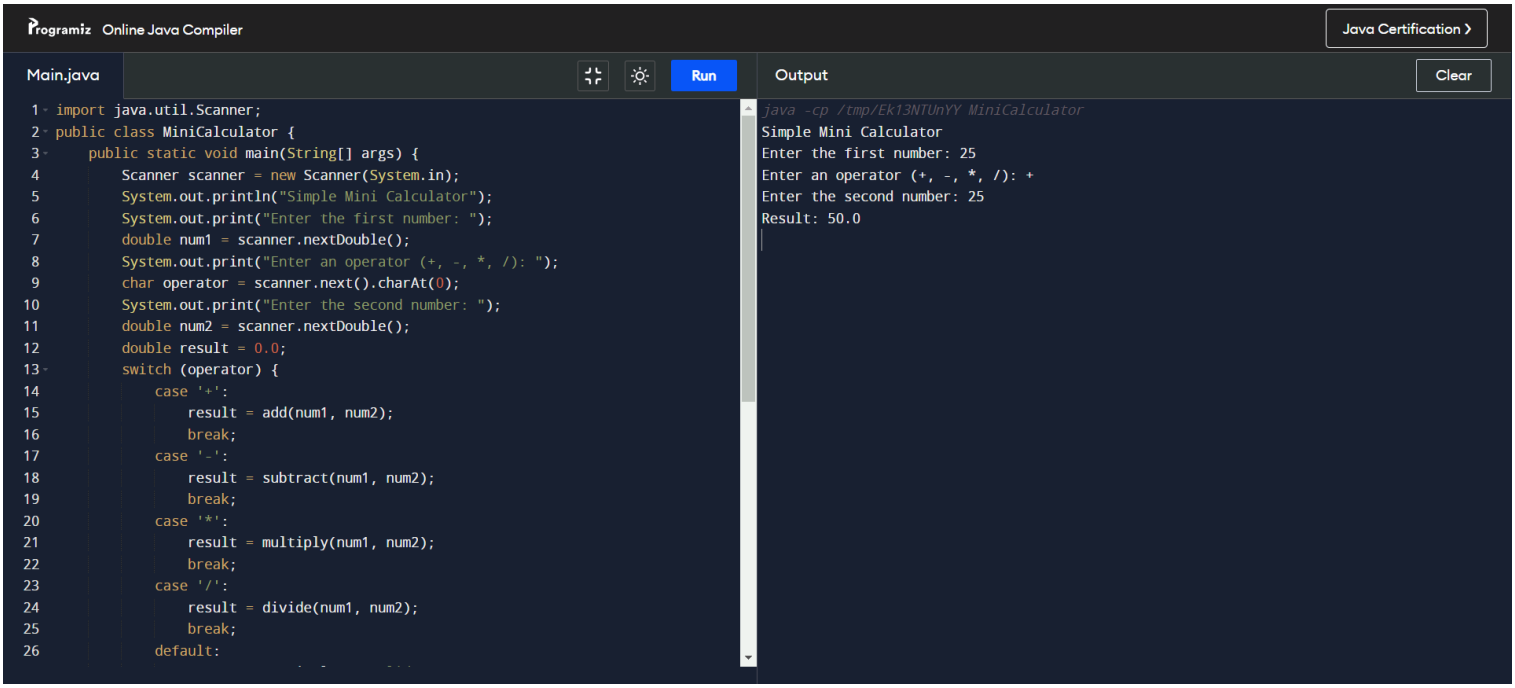
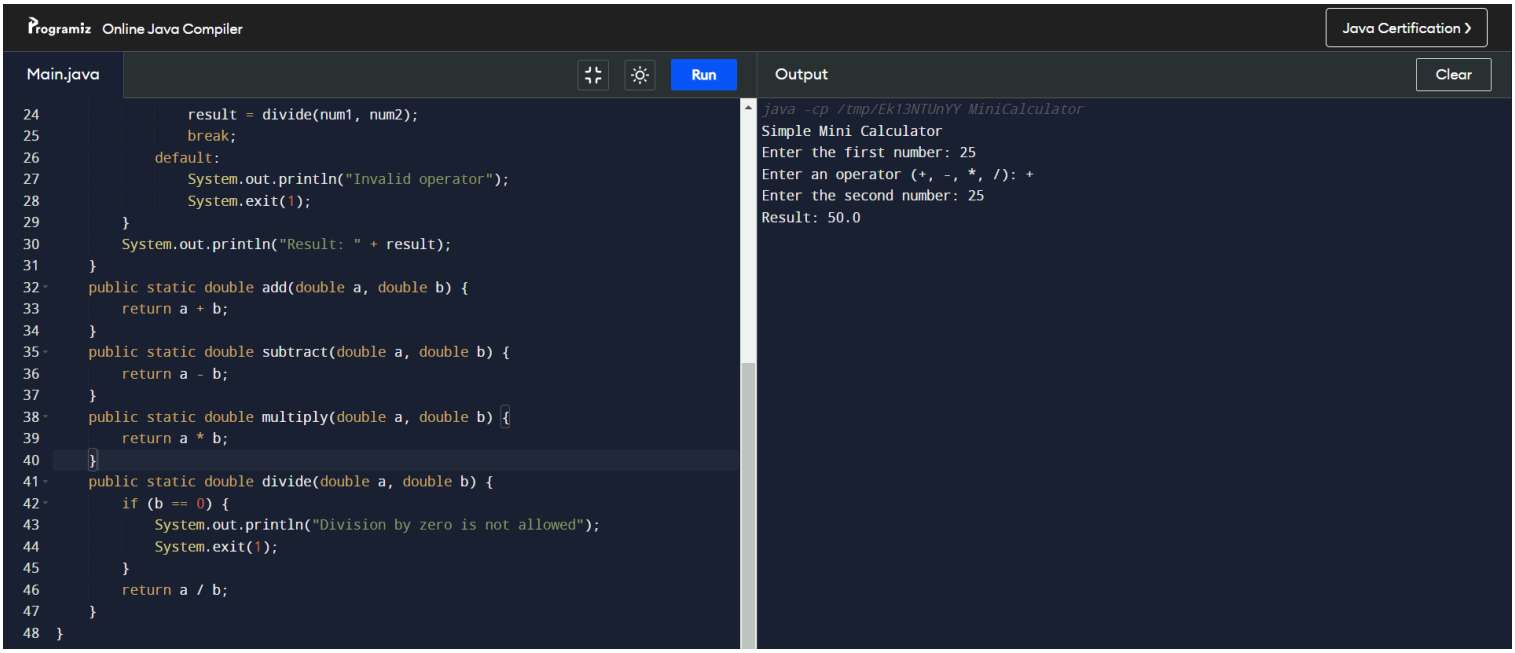

Programiz Online Java Compiler
Java Certification
Main.java
Run
Output
Clear
import java.util.Scanner;
public class MiniCalculator {
public static void main(String[] args) {
Scanner scanner = new Scanner(System.in);
System.out.println("Simple Mini Calculator");
System.out.print("Enter the first number: ");
double num1 = scanner.nextDouble();
System.out.print("Enter an operator (+, -, *, /): ");
char operator = scanner.next().charAt(0);
System.out.print("Enter the second number: ");
double num2 = scanner.nextDouble();
double result = 0.0;
switch (operator) {
case '+':
result = add(num1, num2);
break;
case '-':
result = subtract(num1, num2);
break;
case '*':
result = multiply(num1, num2);
break;
case '/':
result = divide(num1, num2);
break;
default:
java -cp /tmp/Ek13NTUnYY MiniCalculator
Simple Mini Calculator
Enter the first number: 25
Enter an operator (+, -, *, /): +
Enter the second number: 25
Result: 50.0


Programiz Online Java Compiler
Java Certification
Main.java
Run
Output
Clear
result = divide(num1, num2);
break;
default:
System.out.println("Invalid operator");
System.exit(1);
}
System.out.println("Result: " + result);
}
public static double add(double a, double b) {
return a + b;
}
public static double subtract(double a, double b) {
return a - b;
}
public static double multiply(double a, double b) {
return a * b;
}
public static double divide(double a, double b) {
if (b == 0) {
System.out.println("Division by zero is not allowed");
System.exit(1);
}
return a / b;
}
}
java -cp /tmp/Ek13NTUnYY MiniCalculator
Simple Mini Calculator
Enter the first number: 25
Enter an operator (+, -, *, /): +
Enter the second number: 25
Result: 50.0

Programiz C++ Online Compiler

C++ Certification ›

main.cpp

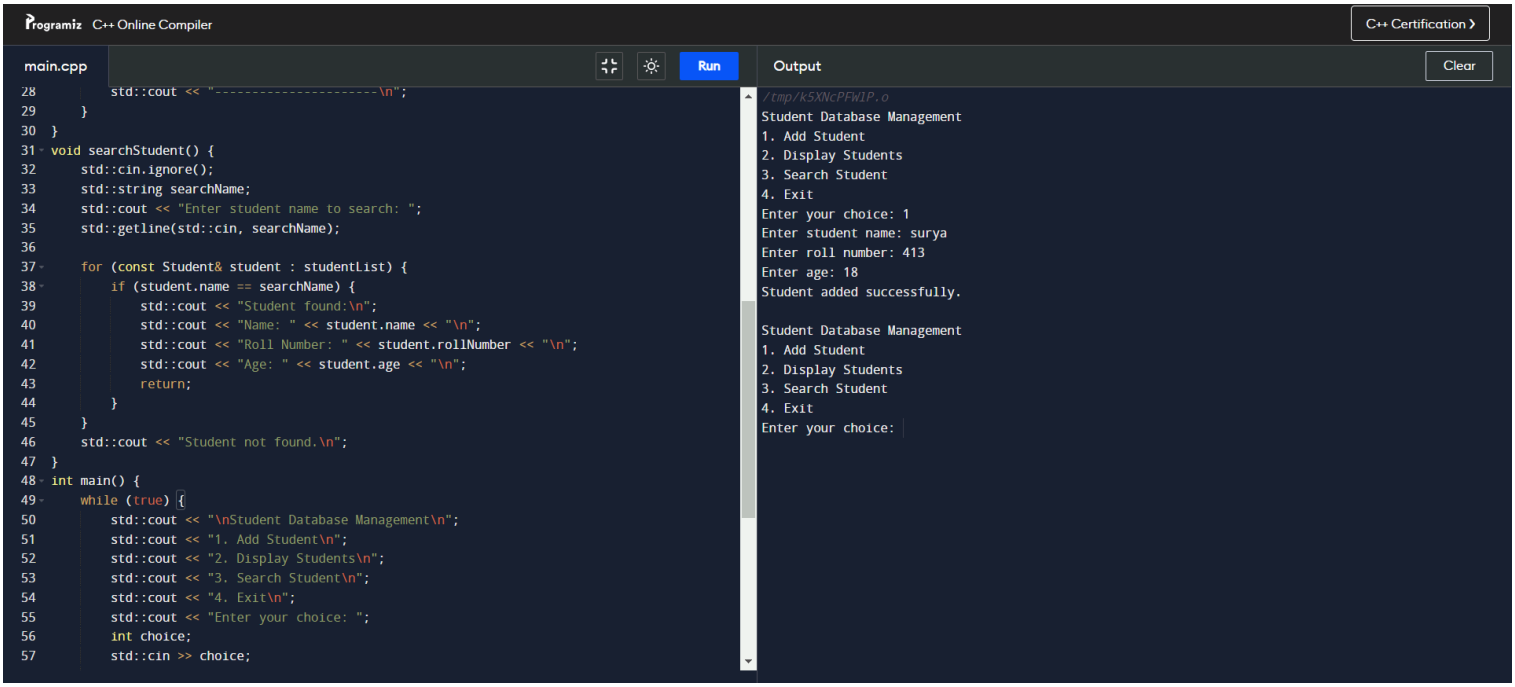
Run

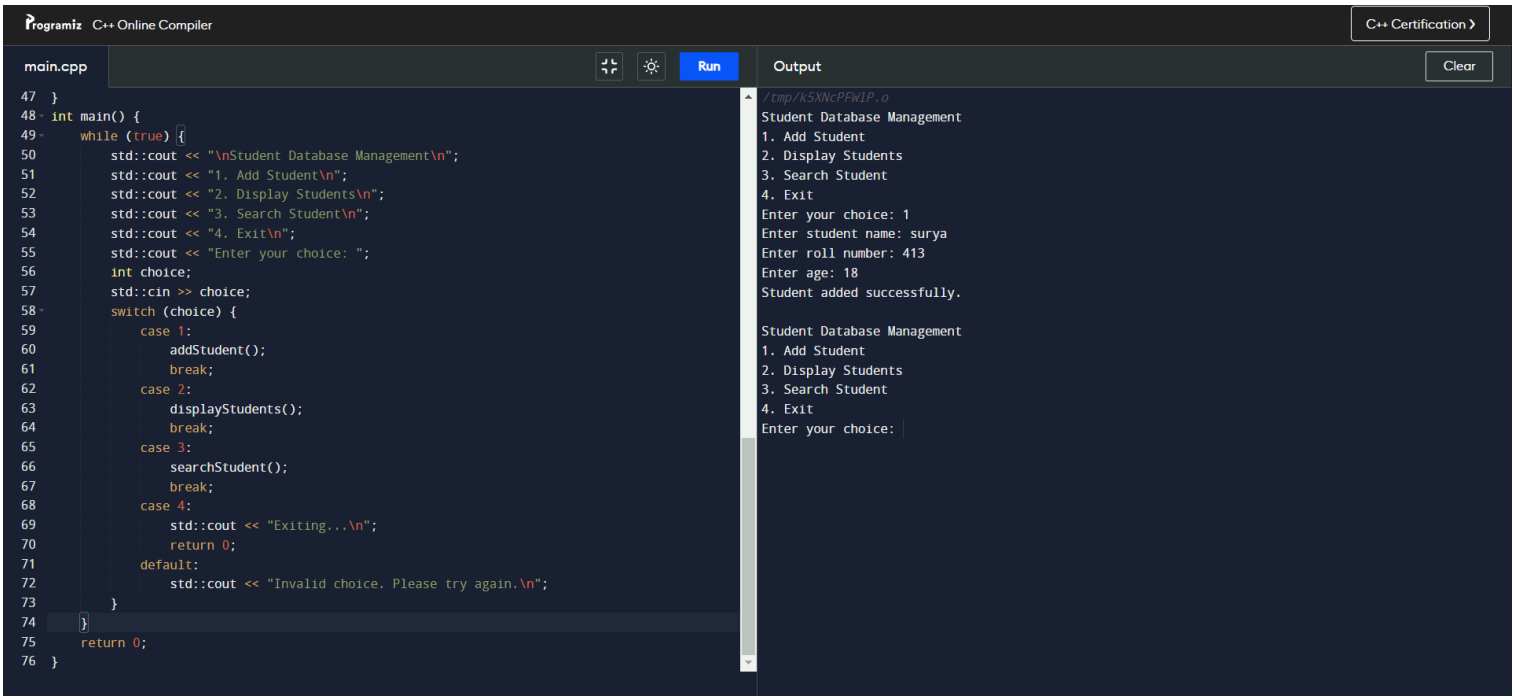
```cpp
#include <iostream>
#include <string>
#include <vector>
struct Student {
    std::string name;
    int rollNumber;
    int age;
};
std::vector<Student> studentList;
void addStudent() {
    Student student;
    std::cout << "Enter student name: ";
    std::cin.ignore();
    std::getline(std::cin, student.name);
    std::cout << "Enter roll number: ";
    std::cin >> student.rollNumber;
    std::cout << "Enter age: ";
    std::cin >> student.age;
    studentList.push_back(student);
    std::cout << "Student added successfully.\n";
}
void displayStudents() {
    std::cout << "Student Database:\n";
    for (const Student& student : studentList) {
        std::cout << "Name: " << student.name << "\n";
        std::cout << "Roll Number: " << student.rollNumber << "\n";
        std::cout << "Age: " << student.age << "\n";
        std::cout << "----------------------\n";
    }
}
```

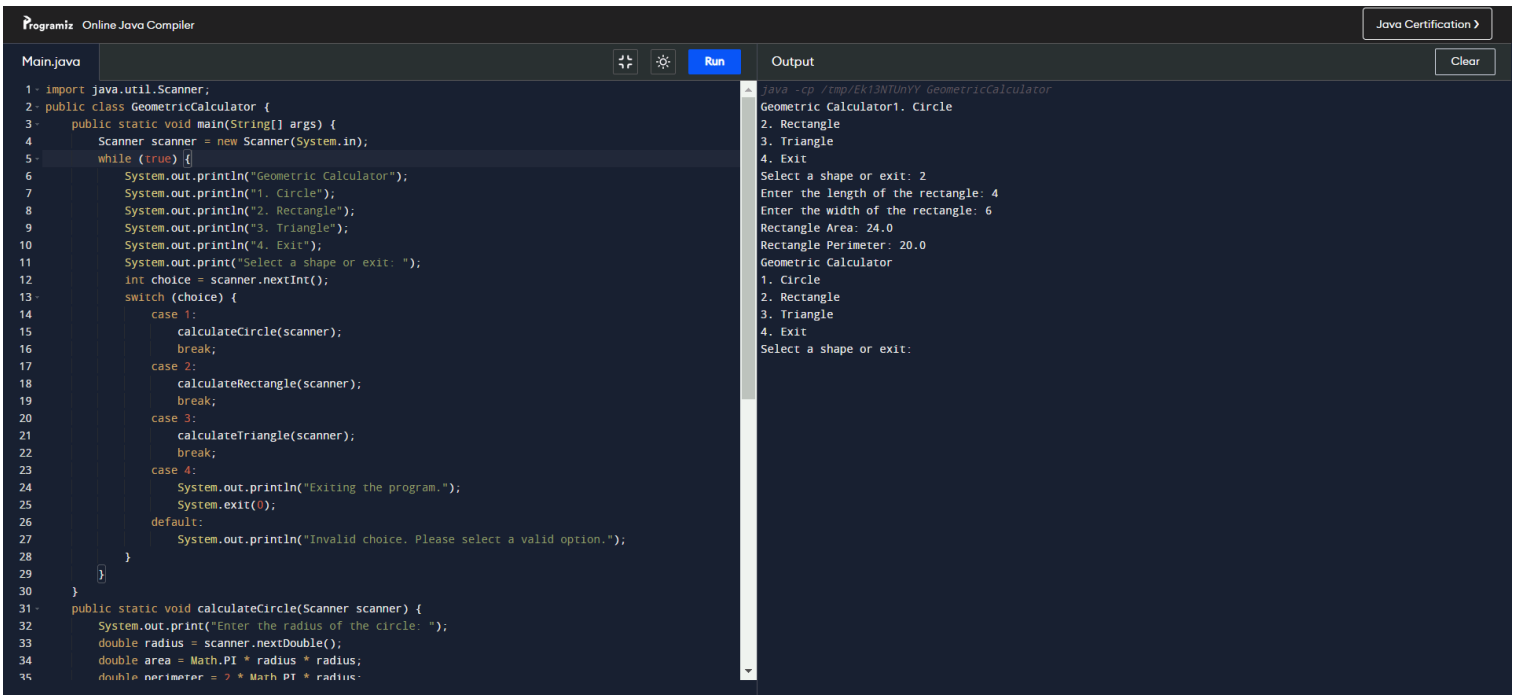
Output

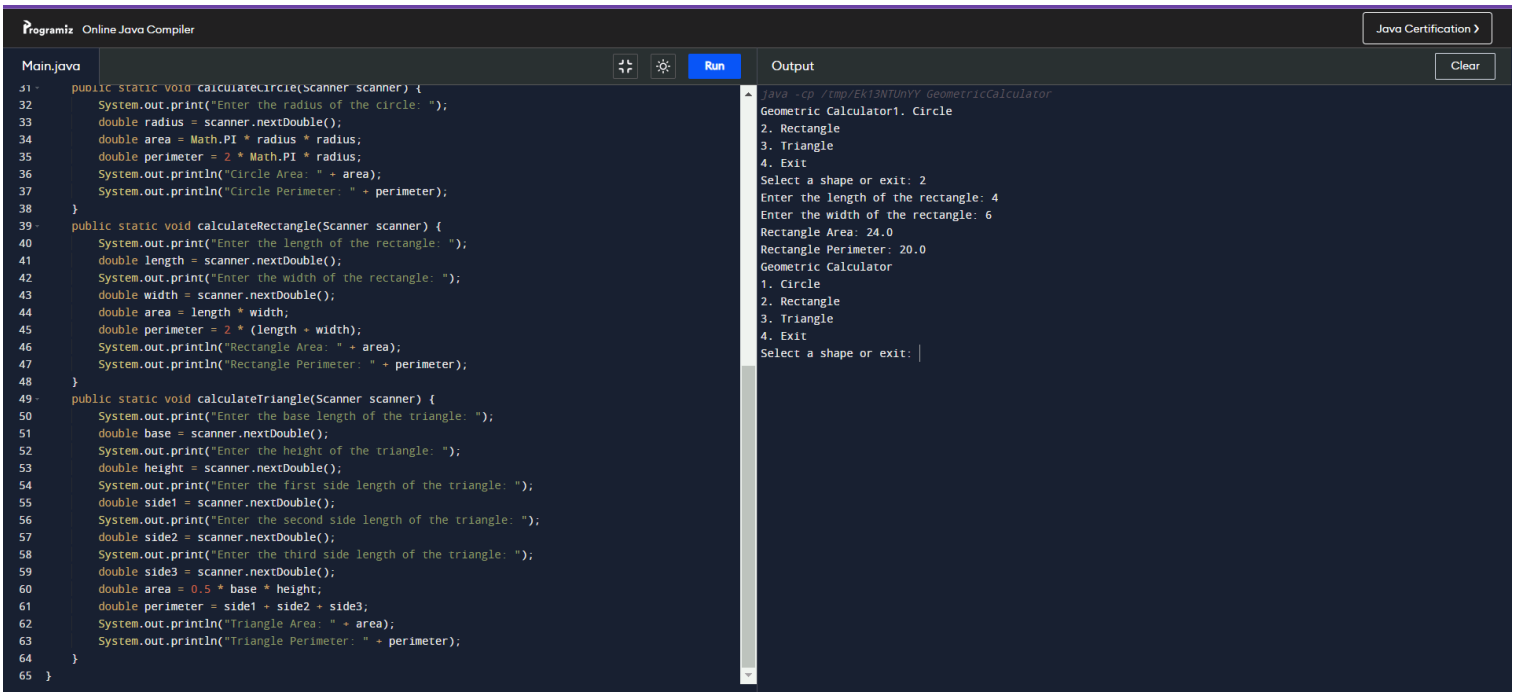
Clear

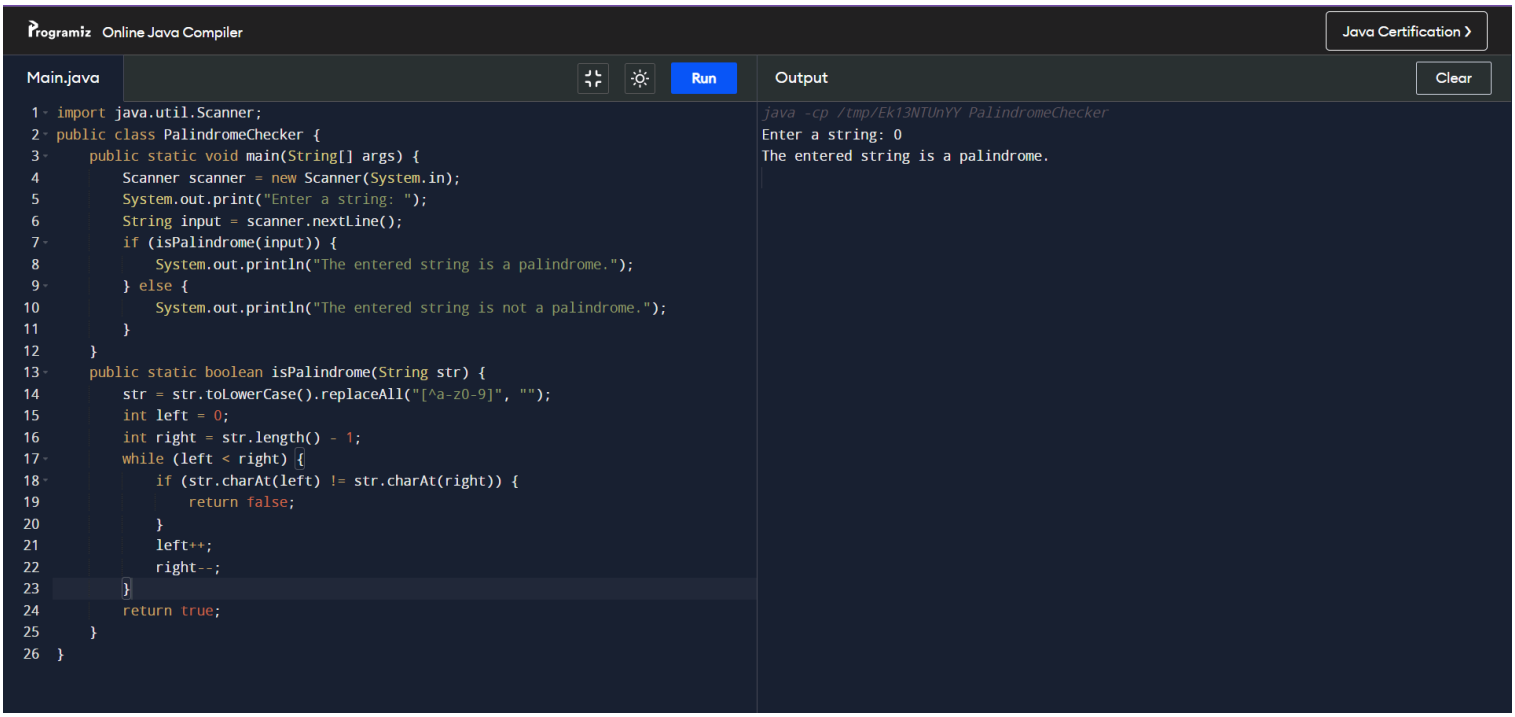
```
/tmp/k5XNcPFW1P.o
Student Database Management
1. Add Student
2. Display Students
3. Search Student
4. Exit
Enter your choice: 1
Enter student name: surya
Enter roll number: 413
Enter age: 18
Student added successfully.

Student Database Management
1. Add Student
2. Display Students
3. Search Student
4. Exit
Enter your choice:
```

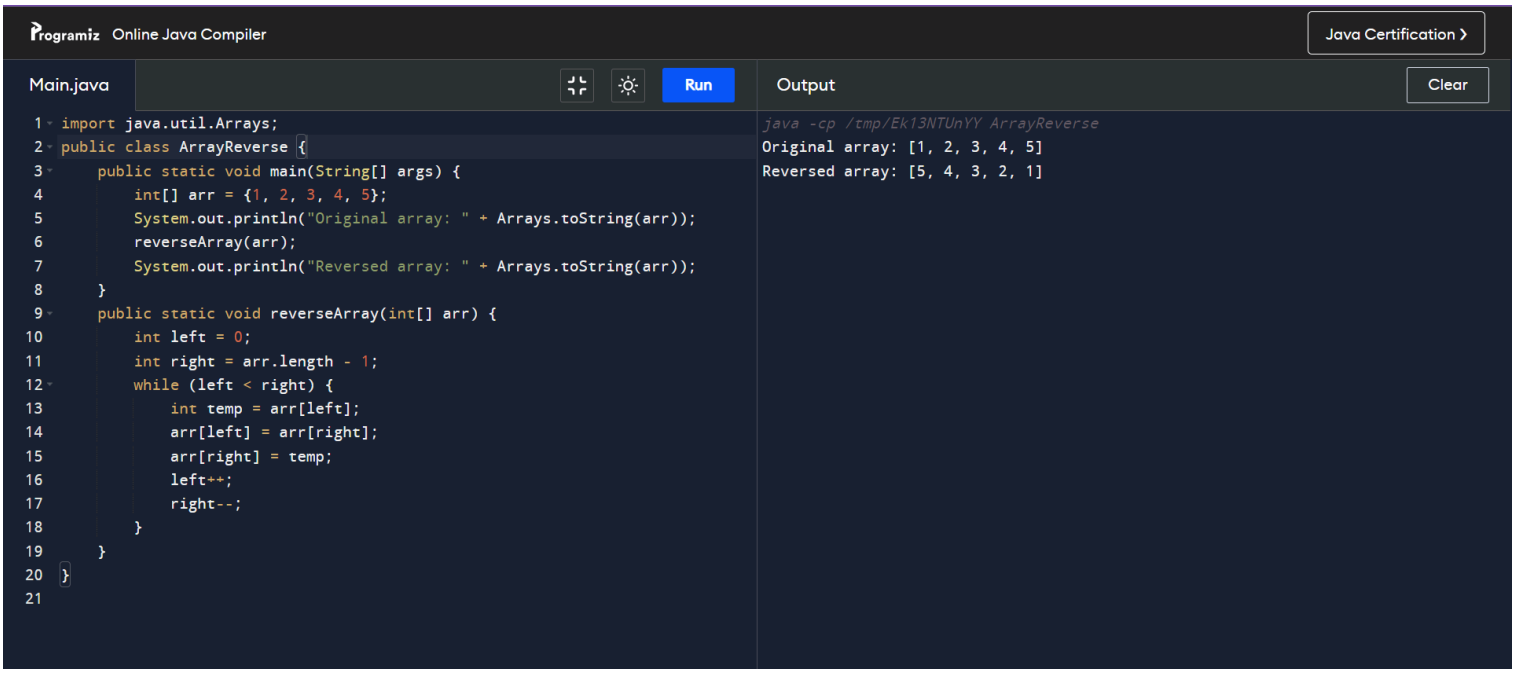

Programiz C++ Online Compiler
C++ Certification
main.cpp
Run
Output
Clear
std::cout << "----------------------\n";
}
}
void searchStudent() {
std::cin.ignore();
std::string searchName;
std::cout << "Enter student name to search: ";
std::getline(std::cin, searchName);
for (const Student& student : studentList) {
if (student.name == searchName) {
std::cout << "Student found:\n";
std::cout << "Name: " << student.name << "\n";
std::cout << "Roll Number: " << student.rollNumber << "\n";
std::cout << "Age: " << student.age << "\n";
return;
}
}
std::cout << "Student not found.\n";
}
int main() {
while (true) {
std::cout << "\nStudent Database Management\n";
std::cout << "1. Add Student\n";
std::cout << "2. Display Students\n";
std::cout << "3. Search Student\n";
std::cout << "4. Exit\n";
std::cout << "Enter your choice: ";
int choice;
std::cin >> choice;
/tmp/k5XNcPFW1P.o
Student Database Management
1. Add Student
2. Display Students
3. Search Student
4. Exit
Enter your choice: 1
Enter student name: surya
Enter roll number: 413
Enter age: 18
Student added successfully.
Student Database Management
1. Add Student
2. Display Students
3. Search Student
4. Exit
Enter your choice:

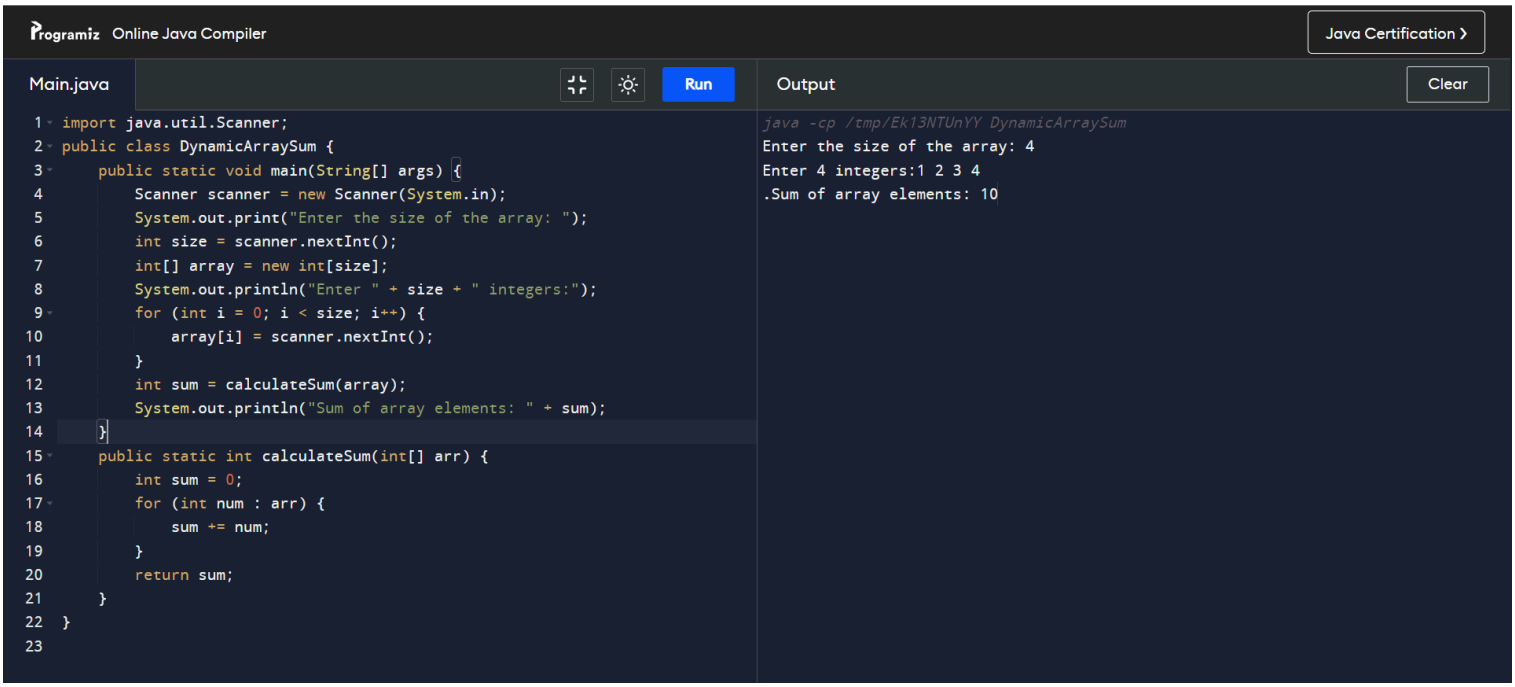

Programiz C++ Online Compiler
C++ Certification
main.cpp
Run
Output
Clear
}
int main() {
while (true) {
std::cout << "\nStudent Database Management\n";
std::cout << "1. Add Student\n";
std::cout << "2. Display Students\n";
std::cout << "3. Search Student\n";
std::cout << "4. Exit\n";
std::cout << "Enter your choice: ";
int choice;
std::cin >> choice;
switch (choice) {
case 1:
addStudent();
break;
case 2:
displayStudents();
break;
case 3:
searchStudent();
break;
case 4:
std::cout << "Exiting...\n";
return 0;
default:
std::cout << "Invalid choice. Please try again.\n";
}
}
return 0;
}
/tmp/k5XNcPEWIP.o
Student Database Management
1. Add Student
2. Display Students
3. Search Student
4. Exit
Enter your choice: 1
Enter student name: surya
Enter roll number: 413
Enter age: 18
Student added successfully.
Student Database Management
1. Add Student
2. Display Students
3. Search Student
4. Exit
Enter your choice:

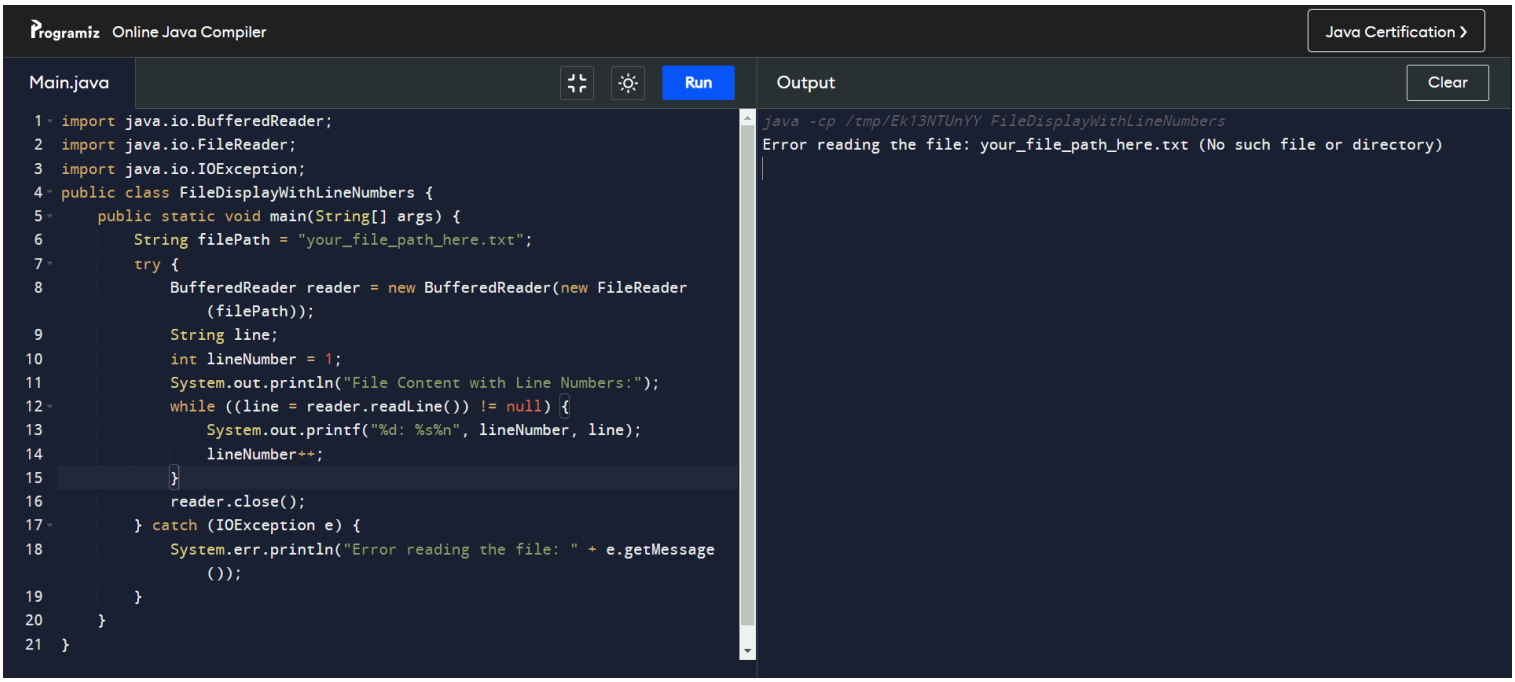

Programiz Online Java Compiler
Java Certification
Main.java
Run
Output
Clear
import java.util.Scanner;
public class GeometricCalculator {
public static void main(String[] args) {
Scanner scanner = new Scanner(System.in);
while (true) {
System.out.println("Geometric Calculator");
System.out.println("1. Circle");
System.out.println("2. Rectangle");
System.out.println("3. Triangle");
System.out.println("4. Exit");
System.out.print("Select a shape or exit: ");
int choice = scanner.nextInt();
switch (choice) {
case 1:
calculateCircle(scanner);
break;
case 2:
calculateRectangle(scanner);
break;
case 3:
calculateTriangle(scanner);
break;
case 4:
System.out.println("Exiting the program.");
System.exit(0);
default:
System.out.println("Invalid choice. Please select a valid option.");
}
}
}
public static void calculateCircle(Scanner scanner) {
System.out.print("Enter the radius of the circle: ");
double radius = scanner.nextDouble();
double area = Math.PI * radius * radius;
java -cp /tmp/Ek13NTUnYY GeometricCalculator
Geometric Calculator1. Circle
2. Rectangle
3. Triangle
4. Exit
Select a shape or exit: 2
Enter the length of the rectangle: 4
Enter the width of the rectangle: 6
Rectangle Area: 24.0
Rectangle Perimeter: 20.0
Geometric Calculator
1. Circle
2. Rectangle
3. Triangle
4. Exit
Select a shape or exit:

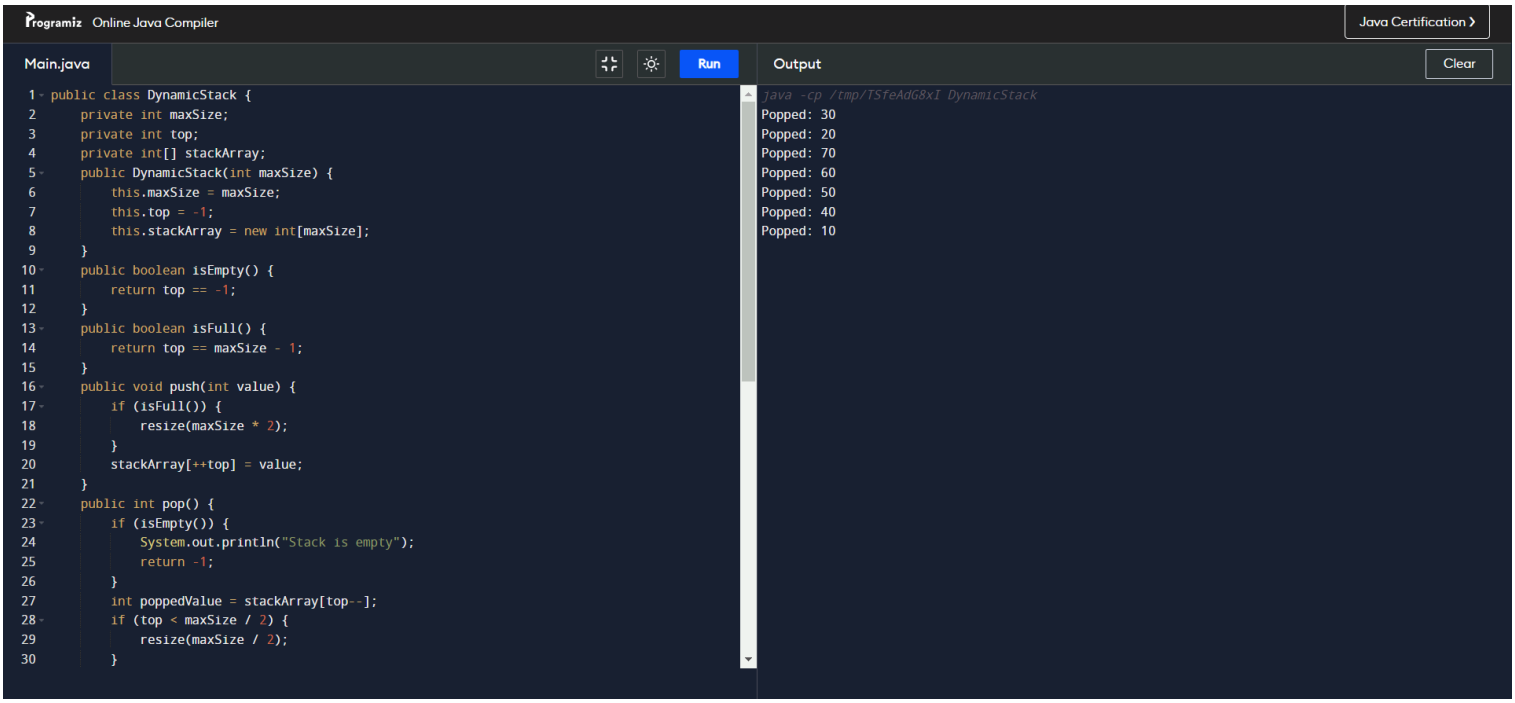

Programiz Online Java Compiler
Java Certification
Main.java
Run
Output
Clear
public static void calculateCircle(Scanner scanner) {
System.out.print("Enter the radius of the circle: ");
double radius = scanner.nextDouble();
double area = Math.PI * radius * radius;
double perimeter = 2 * Math.PI * radius;
System.out.println("Circle Area: " + area);
System.out.println("Circle Perimeter: " + perimeter);
}
public static void calculateRectangle(Scanner scanner) {
System.out.print("Enter the length of the rectangle: ");
double length = scanner.nextDouble();
System.out.print("Enter the width of the rectangle: ");
double width = scanner.nextDouble();
double area = length * width;
double perimeter = 2 * (length + width);
System.out.println("Rectangle Area: " + area);
System.out.println("Rectangle Perimeter: " + perimeter);
}
public static void calculateTriangle(Scanner scanner) {
System.out.print("Enter the base length of the triangle: ");
double base = scanner.nextDouble();
System.out.print("Enter the height of the triangle: ");
double height = scanner.nextDouble();
System.out.print("Enter the first side length of the triangle: ");
double side1 = scanner.nextDouble();
System.out.print("Enter the second side length of the triangle: ");
double side2 = scanner.nextDouble();
System.out.print("Enter the third side length of the triangle: ");
double side3 = scanner.nextDouble();
double area = 0.5 * base * height;
double perimeter = side1 + side2 + side3;
System.out.println("Triangle Area: " + area);
System.out.println("Triangle Perimeter: " + perimeter);
}
}
java -cp /tmp/Ek13NTUnYY GeometricCalculator
Geometric Calculator1. Circle
2. Rectangle
3. Triangle
4. Exit
Select a shape or exit: 2
Enter the length of the rectangle: 4
Enter the width of the rectangle: 6
Rectangle Area: 24.0
Rectangle Perimeter: 20.0
Geometric Calculator
1. Circle
2. Rectangle
3. Triangle
4. Exit
Select a shape or exit:

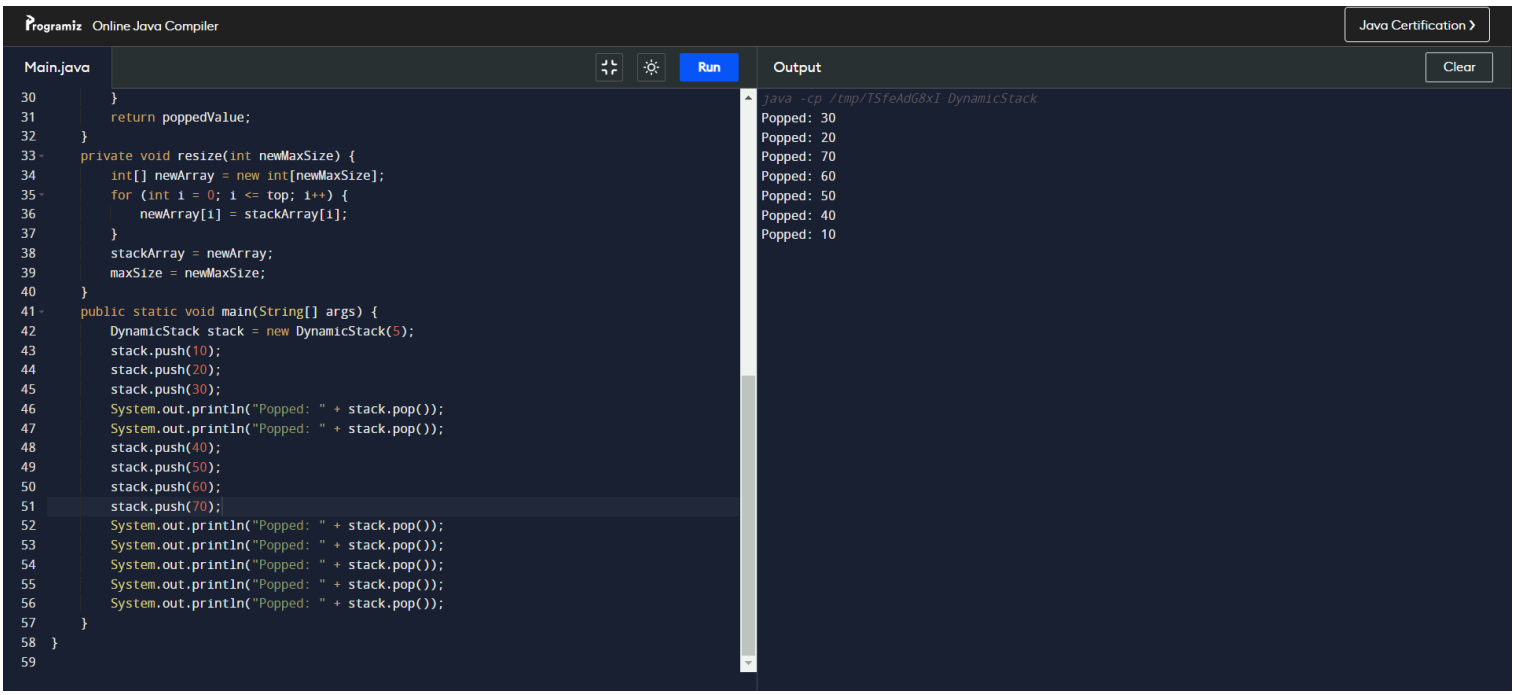

Programiz Online Java Compiler
Java Certification
Main.java
Run
Output
Clear
import java.util.Scanner;
public class PalindromeChecker {
public static void main(String[] args) {
Scanner scanner = new Scanner(System.in);
System.out.print("Enter a string: ");
String input = scanner.nextLine();
if (isPalindrome(input)) {
System.out.println("The entered string is a palindrome.");
} else {
System.out.println("The entered string is not a palindrome.");
}
}
public static boolean isPalindrome(String str) {
str = str.toLowerCase().replaceAll("[^a-z0-9]", "");
int left = 0;
int right = str.length() - 1;
while (left < right) {
if (str.charAt(left) != str.charAt(right)) {
return false;
}
left++;
right--;
}
return true;
}
}
java -cp /tmp/Ek13NTUnYY PalindromeChecker
Enter a string: 0
The entered string is a palindrome.

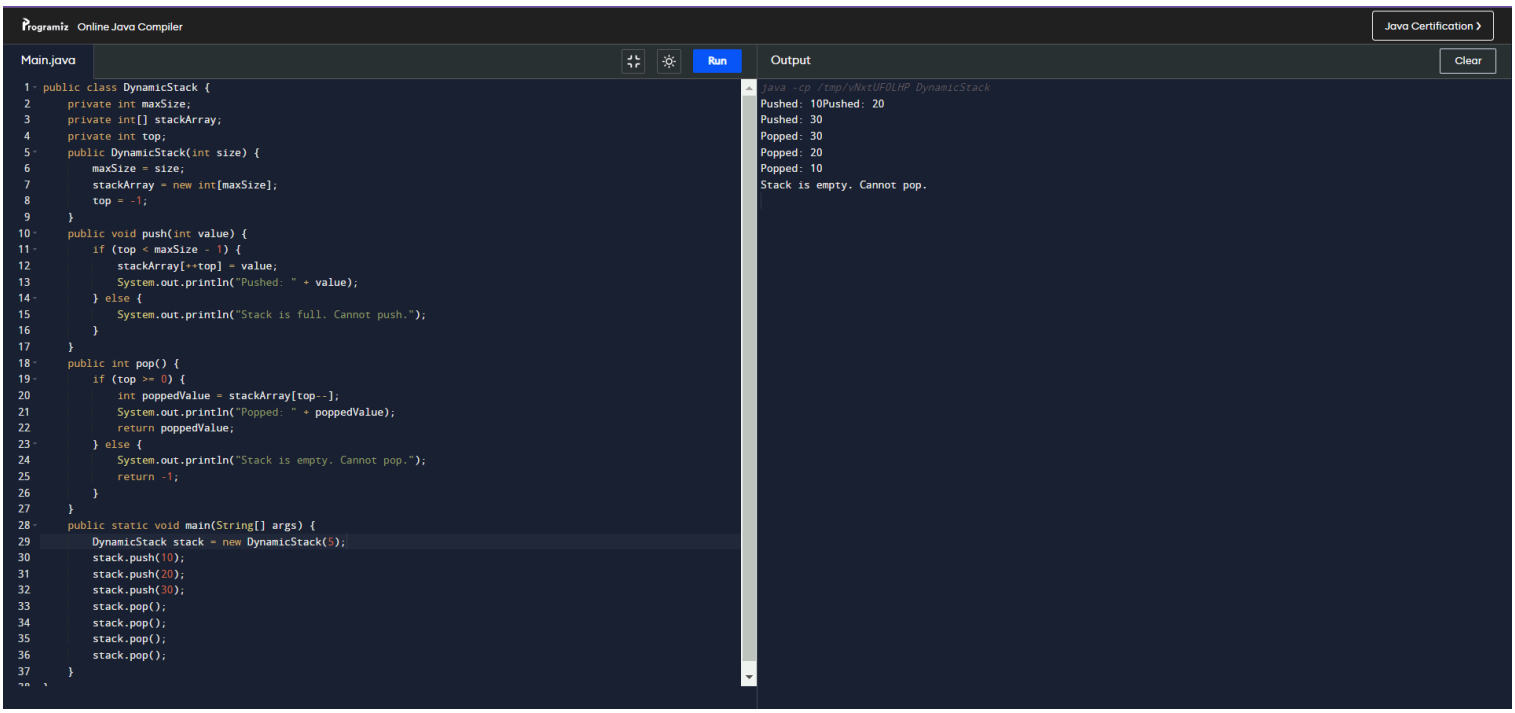

Programiz Online Java Compiler
Java Certification ›
Main.java
Run
Output
Clear
import java.util.Arrays;
public class ArrayReverse {
public static void main(String[] args) {
int[] arr = {1, 2, 3, 4, 5};
System.out.println("Original array: " + Arrays.toString(arr));
reverseArray(arr);
System.out.println("Reversed array: " + Arrays.toString(arr));
}
public static void reverseArray(int[] arr) {
int left = 0;
int right = arr.length - 1;
while (left < right) {
int temp = arr[left];
arr[left] = arr[right];
arr[right] = temp;
left++;
right--;
}
}
}
java -cp /tmp/Ek13NTUnYY ArrayReverse
Original array: [1, 2, 3, 4, 5]
Reversed array: [5, 4, 3, 2, 1]

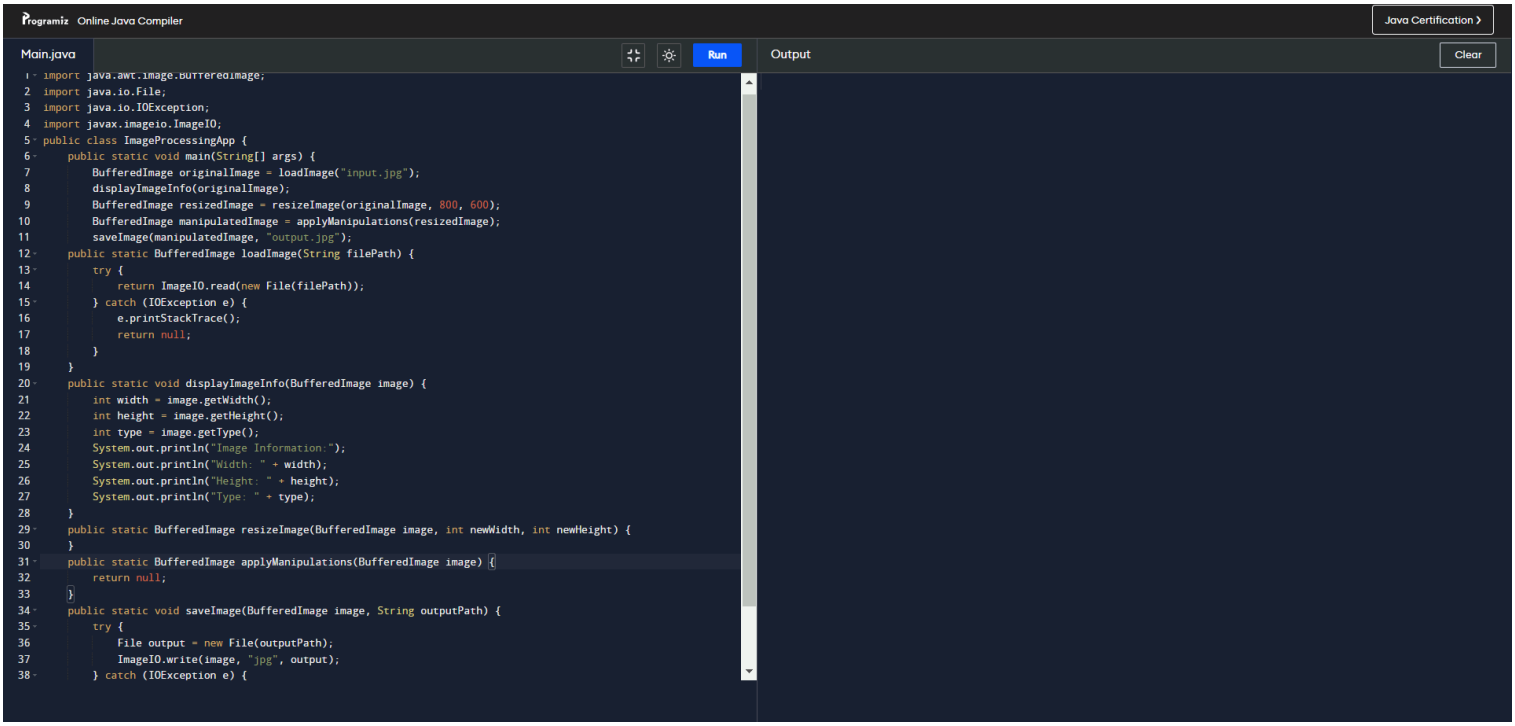

Programiz Online Java Compiler
Java Certification
Main.java
Run
Output
Clear
import java.util.Scanner;
public class DynamicArraySum {
public static void main(String[] args) {
Scanner scanner = new Scanner(System.in);
System.out.print("Enter the size of the array: ");
int size = scanner.nextInt();
int[] array = new int[size];
System.out.println("Enter " + size + " integers:");
for (int i = 0; i < size; i++) {
array[i] = scanner.nextInt();
}
int sum = calculateSum(array);
System.out.println("Sum of array elements: " + sum);
}
public static int calculateSum(int[] arr) {
int sum = 0;
for (int num : arr) {
sum += num;
}
return sum;
}
}
java -cp /tmp/Ek13NTUnYY DynamicArraySum
Enter the size of the array: 4
Enter 4 integers:1 2 3 4
.Sum of array elements: 10


Programiz Online Java Compiler
Java Certification
Main.java
Run
Output
Clear
import java.io.BufferedReader;
import java.io.FileReader;
import java.io.IOException;
public class FileDisplayWithLineNumbers {
public static void main(String[] args) {
String filePath = "your_file_path_here.txt";
try {
BufferedReader reader = new BufferedReader(new FileReader
(filePath));
String line;
int lineNumber = 1;
System.out.println("File Content with Line Numbers:");
while ((line = reader.readLine()) != null) {
System.out.printf("%d: %s%n", lineNumber, line);
lineNumber++;
}
reader.close();
} catch (IOException e) {
System.err.println("Error reading the file: " + e.getMessage
());
}
}
}
java -cp /tmp/Ek13NTUnYY FileDisplayWithLineNumbers
Error reading the file: your_file_path_here.txt (No such file or directory)


Programiz Online Java Compiler
Java Certification
Main.java
Run
Output
Clear
public class DynamicStack {
private int maxSize;
private int top;
private int[] stackArray;
public DynamicStack(int maxSize) {
this.maxSize = maxSize;
this.top = -1;
this.stackArray = new int[maxSize];
}
public boolean isEmpty() {
return top == -1;
}
public boolean isFull() {
return top == maxSize - 1;
}
public void push(int value) {
if (isFull()) {
resize(maxSize * 2);
}
stackArray[++top] = value;
}
public int pop() {
if (isEmpty()) {
System.out.println("Stack is empty");
return -1;
}
int poppedValue = stackArray[top--];
if (top < maxSize / 2) {
resize(maxSize / 2);
}
java -cp /tmp/TSfeAdG8xI DynamicStack
Popped: 30
Popped: 20
Popped: 70
Popped: 60
Popped: 50
Popped: 40
Popped: 10


Programiz Online Java Compiler
Java Certification
Main.java
Run
Output
Clear
}
return poppedValue;
}
private void resize(int newMaxSize) {
int[] newArray = new int[newMaxSize];
for (int i = 0; i <= top; i++) {
newArray[i] = stackArray[i];
}
stackArray = newArray;
maxSize = newMaxSize;
}
public static void main(String[] args) {
DynamicStack stack = new DynamicStack(5);
stack.push(10);
stack.push(20);
stack.push(30);
System.out.println("Popped: " + stack.pop());
System.out.println("Popped: " + stack.pop());
stack.push(40);
stack.push(50);
stack.push(60);
stack.push(70);
System.out.println("Popped: " + stack.pop());
System.out.println("Popped: " + stack.pop());
System.out.println("Popped: " + stack.pop());
System.out.println("Popped: " + stack.pop());
System.out.println("Popped: " + stack.pop());
}
}
java -cp /tmp/TSfeAdG8xI DynamicStack
Popped: 30
Popped: 20
Popped: 70
Popped: 60
Popped: 50
Popped: 40
Popped: 10


Programiz Online Java Compiler
Java Certification
Main.java
Run
Output
Clear
public class DynamicStack {
private int maxSize;
private int[] stackArray;
private int top;
public DynamicStack(int size) {
maxSize = size;
stackArray = new int[maxSize];
top = -1;
}
public void push(int value) {
if (top < maxSize - 1) {
stackArray[++top] = value;
System.out.println("Pushed: " + value);
} else {
System.out.println("Stack is full. Cannot push.");
}
}
public int pop() {
if (top >= 0) {
int poppedValue = stackArray[top--];
System.out.println("Popped: " + poppedValue);
return poppedValue;
} else {
System.out.println("Stack is empty. Cannot pop.");
return -1;
}
}
public static void main(String[] args) {
DynamicStack stack = new DynamicStack(5);
stack.push(10);
stack.push(20);
stack.push(30);
stack.pop();
stack.pop();
stack.pop();
stack.pop();
}
java -cp /tmp/vNxtUFOLHP DynamicStack
Pushed: 10Pushed: 20
Pushed: 30
Popped: 30
Popped: 20
Popped: 10
Stack is empty. Cannot pop.


Programiz Online Java Compiler
Java Certification
Main.java
Run
Output
Clear
import java.awt.image.BufferedImage;
import java.io.File;
import java.io.IOException;
import javax.imageio.ImageIO;
public class ImageProcessingApp {
public static void main(String[] args) {
BufferedImage originalImage = loadImage("input.jpg");
displayImageInfo(originalImage);
BufferedImage resizedImage = resizeImage(originalImage, 800, 600);
BufferedImage manipulatedImage = applyManipulations(resizedImage);
saveImage(manipulatedImage, "output.jpg");
public static BufferedImage loadImage(String filePath) {
try {
return ImageIO.read(new File(filePath));
} catch (IOException e) {
e.printStackTrace();
return null;
}
}
public static void displayImageInfo(BufferedImage image) {
int width = image.getWidth();
int height = image.getHeight();
int type = image.getType();
System.out.println("Image Information:");
System.out.println("Width: " + width);
System.out.println("Height: " + height);
System.out.println("Type: " + type);
}
public static BufferedImage resizeImage(BufferedImage image, int newWidth, int newHeight) {
}
public static BufferedImage applyManipulations(BufferedImage image) {
return null;
}
public static void saveImage(BufferedImage image, String outputPath) {
try {
File output = new File(outputPath);
ImageIO.write(image, "jpg", output);
} catch (IOException e) {