1.Creating an Arithmetic Calculator.

```
package Project;
import java.util.Scanner;
public class Calculator {
 public static void main(String[] args) {
 Scanner scan = new Scanner(System.in);
 System.out.println("Welcome to the Arithmetic Calculator!");
 System.out.println("Available operations:");
 System.out.println("1. Addition (+)");
 System.out.println("2. Subtraction (-)");
 System.out.println("3. Multiplication (*)");
 System.out.println("4. Division (/)");
 System.out.print("Please choose an operation (1/2/3/4): ");
 int choice = scan.nextInt();
 double result;
 switch (choice) {
 case 1:
 result = performAddition();
 break;
 case 2:
 result = performSubtraction();
 break;
 case 3:
 result = performMultiplication();
 break;
 case 4:
 result = performDivision();
```

```
break;
default:
System.out.println("Invalid choice. Please select a valid operation.");
return;
}
System.out.println("Result: " + result);
scan.close();
}
public static double performAddition() {
Scanner scan = new Scanner(System.in);
System.out.print("Enter the first number: ");
double num1 = scan.nextDouble();
System.out.print("Enter the second number: ");
double num2 = scan.nextDouble();
return num1 + num2;
}
public static double performSubtraction() {
Scanner scan = new Scanner(System.in);
System.out.print("Enter the first number: ");
double num1 = scan.nextDouble();
System.out.print("Enter the second number: ");
double num2 = scan.nextDouble();
return num1 - num2;
}
public static double performMultiplication() {
Scanner scan = new Scanner(System.in);
System.out.print("Enter the first number: ");
```

```
 double num1 = scan.nextDouble();
 System.out.print("Enter the second number: ");
 double num2 = scan.nextDouble();
 return num1 * num2;
 }
 public static double performDivision() {
 Scanner scan = new Scanner(System.in);
 System.out.print("Enter the dividend: ");
 double dividend = scan.nextDouble();
 System.out.print("Enter the divisor: ");
 double divisor = scan.nextDouble();
 if (divisor == 0) {
 System.out.println("Error: Division by zero is not allowed.");
 System.exit(1);
 }
 return dividend / divisor;
 }
}
```