**Step-by-Step Java Learning Guide with Programs**

**🖥️ Before Starting**

* Install **Java JDK** and **BlueJ**.
* Open BlueJ → **New Project** → **New Class**.
* Delete everything in the class.
* Type your code inside public class ClassName { public static void main(String[] args) { … } }
* **Compile → Run → See Output**

👉 If you see red errors → read the message, correct spelling, or missing ;

**📅 Week 1 – Getting Started**

**Program 1: Hello Java**

public class Hello {

public static void main(String[] args) {

System.out.println("Hello, Java!");

}

}

💡 *Explains how to print text.*

**Program 2: Print Your Name**

public class MyName {

public static void main(String[] args) {

System.out.println("My name is Rahul");

}

}

💡 *Change "Rahul" to your own name.*

**Program 3: Print Bio-Data**

public class BioData {

public static void main(String[] args) {

System.out.println("Name: Rahul Kumar");

System.out.println("Father's Name: Rajesh Kumar");

System.out.println("Address: Dhanbad, Jharkhand");

System.out.println("Contact: 9876543210");

}

}

💡 *Shows multiple lines of output.*

**📅 Week 2 – Arithmetic Basics**

**Program 4: Add Two Numbers**

public class Add {

public static void main(String[] args) {

int a = 10, b = 20;

int sum = a + b;

System.out.println("Sum = " + sum);

}

}

**Program 5: Subtract Two Numbers**

public class Subtract {

public static void main(String[] args) {

int a = 50, b = 20;

int diff = a - b;

System.out.println("Difference = " + diff);

}

}

**Program 6: Multiply Two Numbers**

public class Multiply {

public static void main(String[] args) {

int a = 7, b = 8;

int product = a \* b;

System.out.println("Product = " + product);

}

}

**Program 7: Divide Two Numbers**

public class Divide {

public static void main(String[] args) {

int a = 40, b = 5;

int result = a / b;

System.out.println("Quotient = " + result);

}

}

**Program 8: Remainder of Division**

public class Remainder {

public static void main(String[] args) {

int a = 43, b = 5;

int rem = a % b;

System.out.println("Remainder = " + rem);

}

}

**📅 Week 3 – Numbers**

**Program 9: Double a Number**

public class DoubleNumber {

public static void main(String[] args) {

int n = 12;

int result = n \* 2;

System.out.println("Double = " + result);

}

}

**Program 10: Square of a Number**

public class Square {

public static void main(String[] args) {

int n = 6;

int result = n \* n;

System.out.println("Square = " + result);

}

}

**Program 11: Cube of a Number**

public class Cube {

public static void main(String[] args) {

int n = 4;

int result = n \* n \* n;

System.out.println("Cube = " + result);

}

}

**Program 12: Swap Two Numbers**

public class Swap {

public static void main(String[] args) {

int a = 5, b = 10;

System.out.println("Before Swap: a=" + a + ", b=" + b);

int temp = a;

a = b;

b = temp;

System.out.println("After Swap: a=" + a + ", b=" + b);

}

}

**📅 Week 4 – Area and Perimeter**

**Program 13: Area of Rectangle**

public class RectangleArea {

public static void main(String[] args) {

int length = 10, breadth = 5;

int area = length \* breadth;

System.out.println("Area of Rectangle = " + area);

}

}

**Program 14: Area of Square**

public class SquareArea {

public static void main(String[] args) {

int side = 6;

int area = side \* side;

System.out.println("Area of Square = " + area);

}

}

**Program 15: Area of Circle**

public class CircleArea {

public static void main(String[] args) {

double radius = 7;

double area = 3.14 \* radius \* radius;

System.out.println("Area of Circle = " + area);

}

}

**Program 16: Perimeter of Rectangle**

public class RectanglePerimeter {

public static void main(String[] args) {

int length = 10, breadth = 5;

int perimeter = 2 \* (length + breadth);

System.out.println("Perimeter of Rectangle = " + perimeter);

}

}

**Program 17: Perimeter of Square**

public class SquarePerimeter {

public static void main(String[] args) {

int side = 6;

int perimeter = 4 \* side;

System.out.println("Perimeter of Square = " + perimeter);

}

}

**📅 Week 5 – Small Applications**

**Program 18: Simple Interest**

public class SimpleInterest {

public static void main(String[] args) {

double p = 5000, r = 6, t = 2;

double si = (p \* r \* t) / 100;

System.out.println("Simple Interest = " + si);

}

}

**Program 19: Average of Three Numbers**

public class Average {

public static void main(String[] args) {

int a = 10, b = 20, c = 30;

int avg = (a + b + c) / 3;

System.out.println("Average = " + avg);

}

}

**📅 Week 6 – Decision Making**

**Program 20: Largest of Two Numbers**

public class Largest {

public static void main(String[] args) {

int a = 25, b = 40;

if (a > b) {

System.out.println("Largest = " + a);

} else {

System.out.println("Largest = " + b);

}

}

}

**Program 21 (Bonus): Even or Odd**

public class EvenOdd {

public static void main(String[] args) {

int n = 7;

if (n % 2 == 0) {

System.out.println(n + " is Even");

} else {

System.out.println(n + " is Odd");

}

}

}

✅ Now you have **20 programs (actually 21 with bonus)** with step-by-step plan.