Java Learning Plan with Programs

📄 Before You Begin

1. Install **BlueJ** (or any Java IDE).
2. Create a **new project** (Example: `MyPrograms`).
3. Inside, create a **new class** → delete everything inside → write your program.
4. Click **Compile** → Right-click class → `void main(String[] args)` → **OK** → See output.
   ☞ Don't worry if you get errors. Errors = learning.

🧮 Week 1 – First Programs

◆ Program 1: Print Hello Java

```
public class HelloJava {
    public static void main(String[] args) {
        System.out.println("Hello, Java!");
    }
}
```

📌 Instruction: Always start with this program. It checks your setup is working.

◆ Program 2: Print Your Name

```
public class PrintName {
    public static void main(String[] args) {
        System.out.println("My name is Rahul");
    }
}
```

📌 Instruction: 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 Sharma");
        System.out.println("Father's Name: Mr. Sharma");
        System.out.println("Class: 9");
        System.out.println("School: ABC School");
    }
}
```

📌 Instruction: Replace details with **your own**.

🧮 Week 2 – Arithmetic Basics

◆ Program 4: Add Two Numbers

```
public class AddNumbers {
    public static void main(String[] args) {
        int a = 5, b = 7;
        int sum = a + b;
        System.out.println("Sum = " + sum);
    }
}
```

📌 Instruction: Change values of `a` and `b`.

◆ Program 5: Subtract Numbers

```
public class SubtractNumbers {
    public static void main(String[] args) {
        int a = 15, b = 8;
        int result = a - b;
        System.out.println("Difference = " + result);
    }
}
```

◆ Program 6: Multiply Numbers

```
public class MultiplyNumbers {
    public static void main(String[] args) {
        int a = 4, b = 6;
        int product = a * b;
        System.out.println("Product = " + product);
    }
}
```

◆ Program 7: Divide Numbers

```
public class DivideNumbers {
    public static void main(String[] args) {
        int a = 20, b = 4;
        int result = a / b;
        System.out.println("Quotient = " + result);
    }
}
```

◆ Program 8: Find Remainder

```
public class Remainder {
    public static void main(String[] args) {
        int a = 20, b = 3;
        int result = a % b;
        System.out.println("Remainder = " + result);
    }
}
```

🧮 Week 3 – Working with Numbers

◆ Program 9: Double a Number

```
public class DoubleNumber {
    public static void main(String[] args) {
        int n = 15;
        System.out.println("Double = " + (2 * n));
    }
}
```

◆ Program 10: Square a Number

```
public class SquareNumber {
    public static void main(String[] args) {
        int n = 6;
        System.out.println("Square = " + (n * n));
    }
}
```

◆ Program 11: Cube a Number

```
public class CubeNumber {
    public static void main(String[] args) {
        int n = 3;
        System.out.println("Cube = " + (n * n * n));
    }
}
```

◆ Program 12: Swap Two Numbers

```
public class SwapNumbers {
    public static void main(String[] args) {
        int a = 10, b = 20;
        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);
    }
}
```

📌 Instruction: Try swapping your own values.

🧮 Week 4 – Area and Perimeter

◆ Program 13: Area of Rectangle

```
public class AreaRectangle {
    public static void main(String[] args) {
        int length = 5, width = 3;
        int area = length * width;
        System.out.println("Area = " + area);
    }
}
```

◆ Program 14: Area of Square

```
public class AreaSquare {
    public static void main(String[] args) {
        int side = 4;
        int area = side * side;
        System.out.println("Area = " + area);
    }
}
```

◆ Program 15: Area of Circle

```
public class AreaCircle {
    public static void main(String[] args) {
        double radius = 7;
        double area = 3.14 * radius * radius;
        System.out.println("Area = " + area);
    }
}
```

◆ Program 16: Perimeter of Rectangle

```
public class PerimeterRectangle {
    public static void main(String[] args) {
        int l = 6, w = 4;
        int perimeter = 2 * (l + w);
        System.out.println("Perimeter = " + perimeter);
    }
}
```

◆ Program 17: Perimeter of Square

```
public class PerimeterSquare {
    public static void main(String[] args) {
        int side = 5;
        int perimeter = 4 * side;
        System.out.println("Perimeter = " + perimeter);
    }
}
```

🧮 Week 5 – Simple Applications

◆ Program 18: Simple Interest

```
public class SimpleInterest {
    public static void main(String[] args) {
        int p = 1000, r = 5, t = 2;
        int si = (p * r * t) / 100;
        System.out.println("Simple Interest = " + si);
    }
}
```

◆ Program 19: Average of Three Numbers

```
public class AverageThree {
    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 – Using Conditions

◆ Program 20: Largest of Two Numbers

```
public class LargestTwo {
    public static void main(String[] args) {
        int a = 15, b = 25;
        if(a > b)
            System.out.println("Largest = " + a);
        else
            System.out.println("Largest = " + b);
    }
}
```

◆ Program 21: 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");
    }
}
```

✓ Student Checklist

- Type each program **by hand**.
- Change the values and **see new outputs**.
- **Write the program in your notebook** before typing.
- If you get error → don't panic → check spelling, brackets `{ }`, semicolon `;`.
- Revise all programs on **Friday without looking**.