Lab 4: Realization of Logic Gates using C/C++/Java

Objective:

The objective of this lab is to implement the basic logic gates (AND, OR, NOT) using C, C++, and Java programming languages.

Theory

AND: Theory and truth table

OR:

NOT:

Program in Java:

```java
public class LogicGates {

    public static boolean AND(boolean A, boolean B) {

        return A && B;

    }

    public static boolean OR(boolean A, boolean B) {

        return A || B;

    }

    public static boolean NOT(boolean A) {

        return !A;

    }

    public static void main(String[] args) {

        boolean A = true, B = false;
```

```java
        System.out.println("AND: " + AND(A, B));

        System.out.println("OR: " + OR(A, B));

        System.out.println("NOT A: " + NOT(A));

    }

}
```