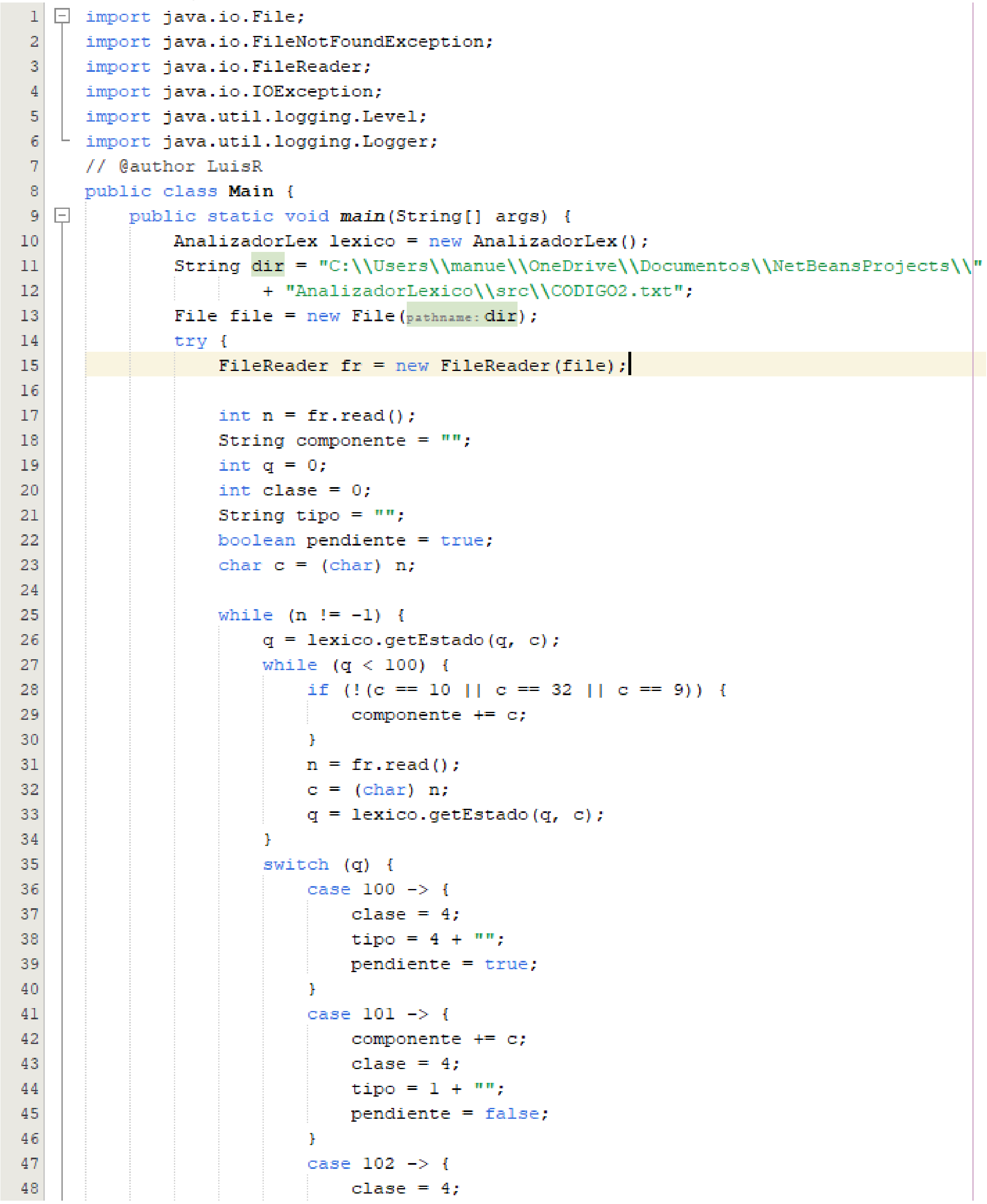
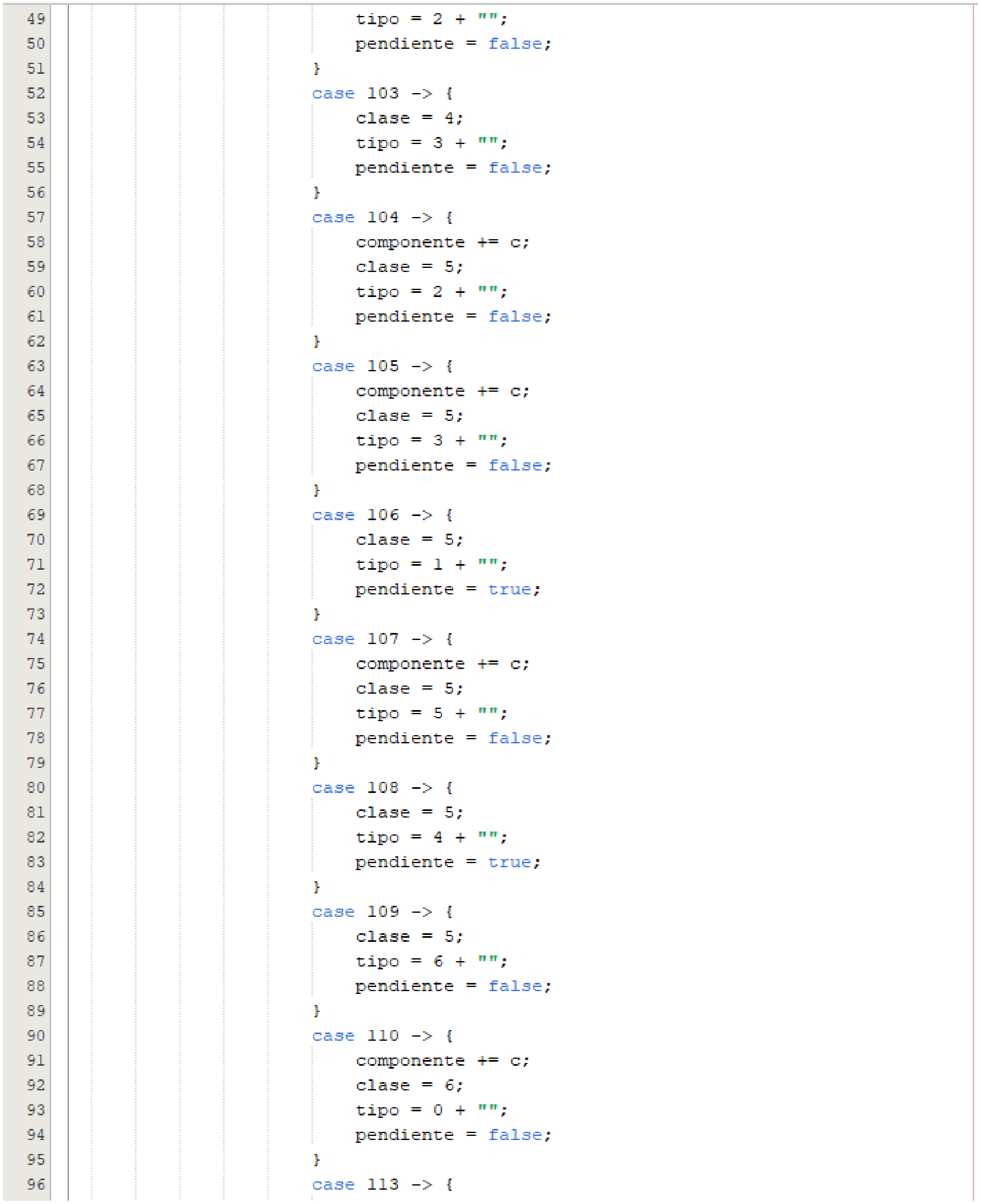
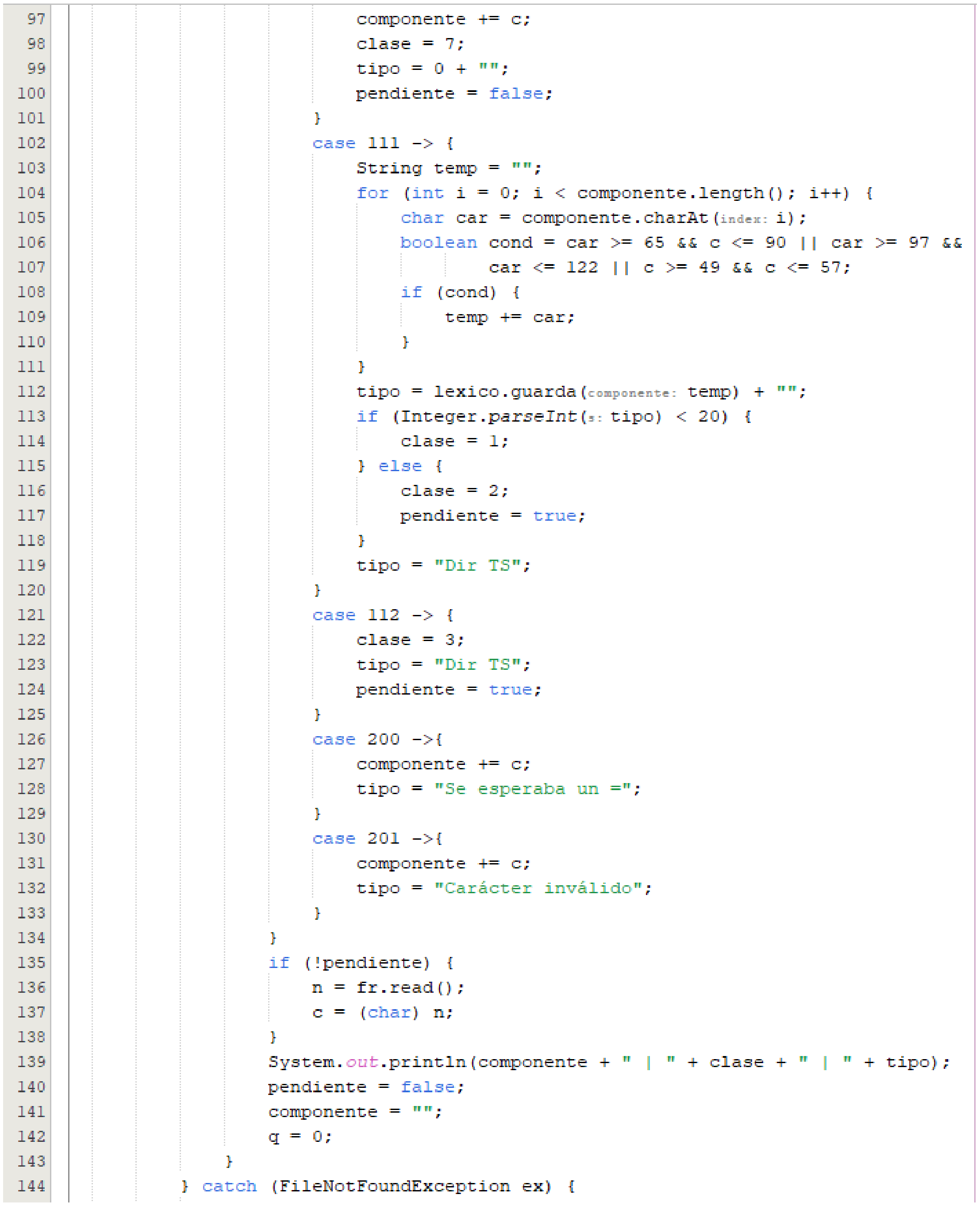
Luis Ricardo Reyes Villar



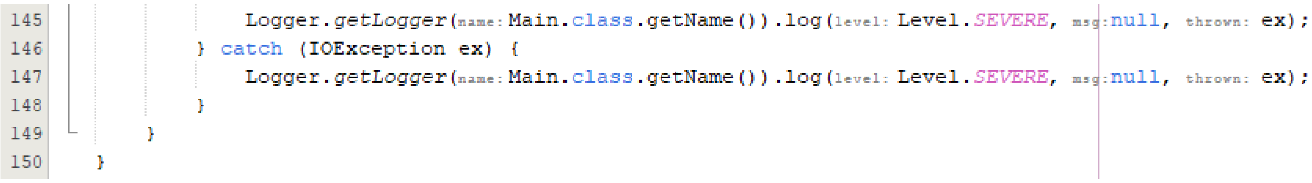
```java
import java.io.File;
import java.io.FileNotFoundException;
import java.io.FileReader;
import java.io.IOException;
import java.util.logging.Level;
import java.util.logging.Logger;
// @author LuisR
public class Main {
    public static void main(String[] args) {
        AnalizadorLex lexico = new AnalizadorLex();
        String dir = "C:\\Users\\manue\\OneDrive\\Documentos\\NetBeansProjects\\"
                + "AnalizadorLexico\\src\\CODIGO2.txt";
        File file = new File(pathname: dir);
        try {
            FileReader fr = new FileReader(file);

            int n = fr.read();
            String componente = "";
            int q = 0;
            int clase = 0;
            String tipo = "";
            boolean pendiente = true;
            char c = (char) n;

            while (n != -1) {
                q = lexico.getEstado(q, c);
                while (q < 100) {
                    if (!(c == 10 || c == 32 || c == 9)) {
                        componente += c;
                    }
                    n = fr.read();
                    c = (char) n;
                    q = lexico.getEstado(q, c);
                }
                switch (q) {
                    case 100 -> {
                        clase = 4;
                        tipo = 4 + "";
                        pendiente = true;
                    }
                    case 101 -> {
                        componente += c;
                        clase = 4;
                        tipo = 1 + "";
                        pendiente = false;
                    }
                    case 102 -> {
                        clase = 4;
```



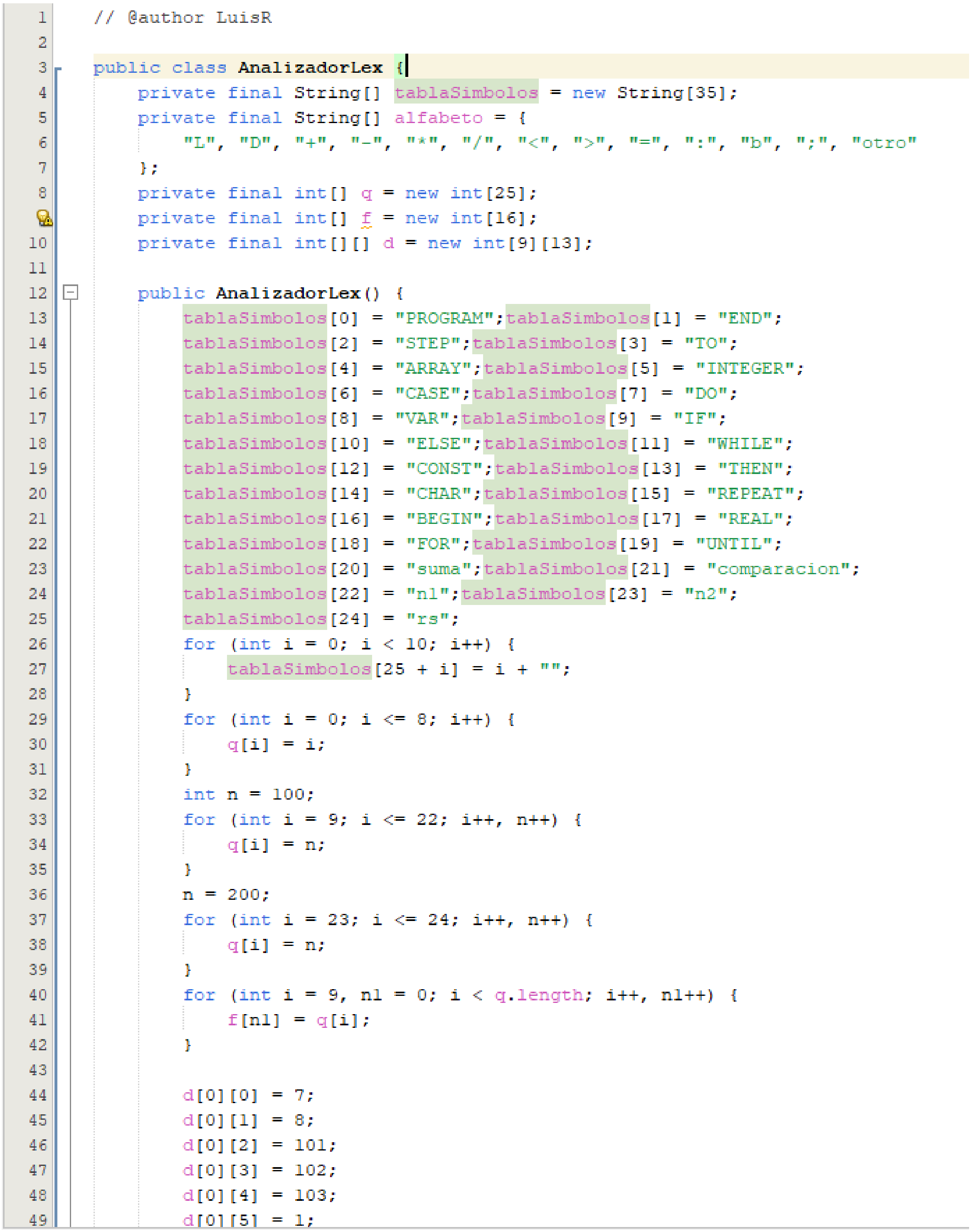
```
                        tipo = 2 + "";
                        pendiente = false;
                    }
                    case 103 -> {
                        clase = 4;
                        tipo = 3 + "";
                        pendiente = false;
                    }
                    case 104 -> {
                        componente += c;
                        clase = 5;
                        tipo = 2 + "";
                        pendiente = false;
                    }
                    case 105 -> {
                        componente += c;
                        clase = 5;
                        tipo = 3 + "";
                        pendiente = false;
                    }
                    case 106 -> {
                        clase = 5;
                        tipo = 1 + "";
                        pendiente = true;
                    }
                    case 107 -> {
                        componente += c;
                        clase = 5;
                        tipo = 5 + "";
                        pendiente = false;
                    }
                    case 108 -> {
                        clase = 5;
                        tipo = 4 + "";
                        pendiente = true;
                    }
                    case 109 -> {
                        clase = 5;
                        tipo = 6 + "";
                        pendiente = false;
                    }
                    case 110 -> {
                        componente += c;
                        clase = 6;
                        tipo = 0 + "";
                        pendiente = false;
                    }
                    case 113 -> {
```



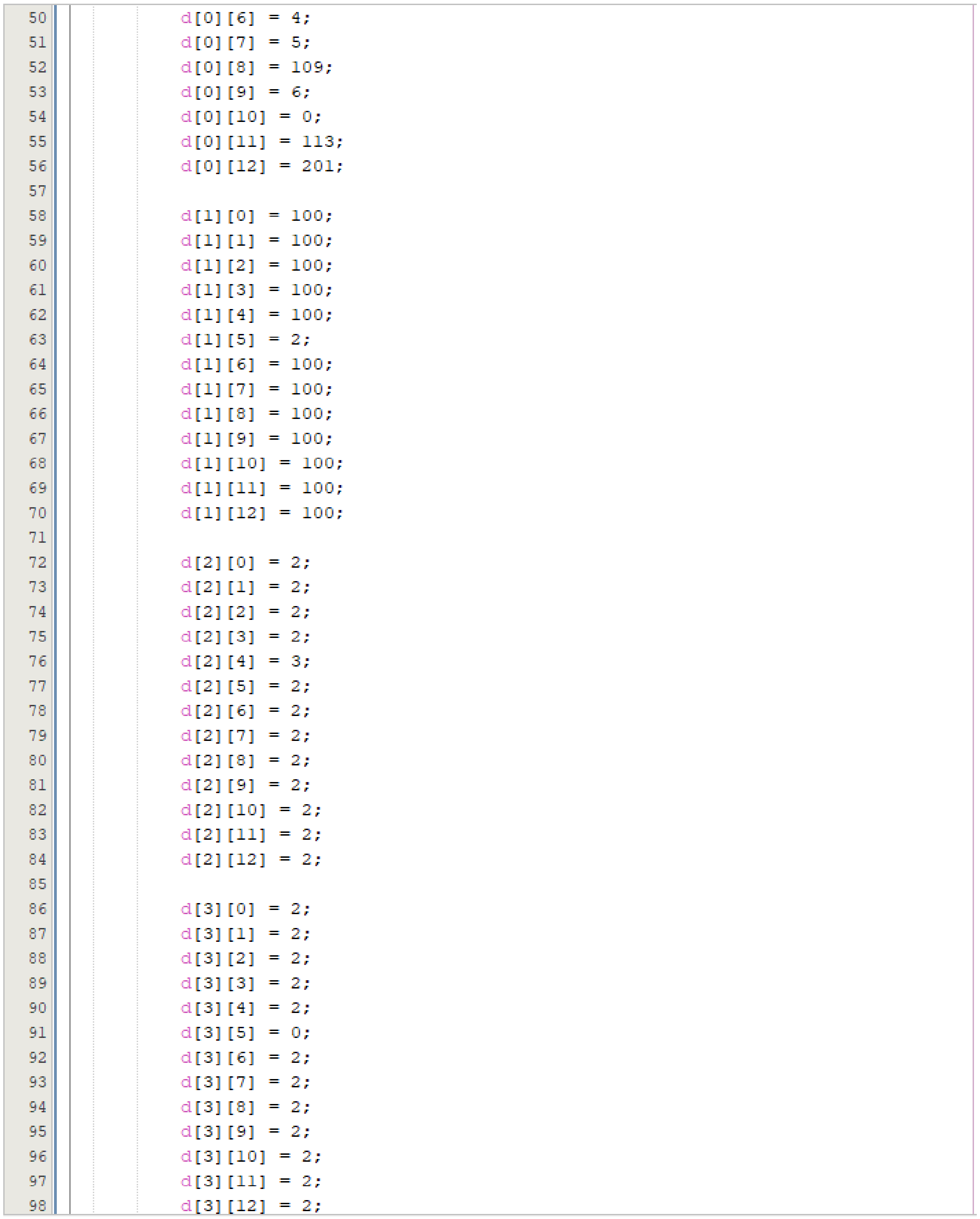
```
                        componente += c;
                        clase = 7;
                        tipo = 0 + "";
                        pendiente = false;
                    }
                    case 111 -> {
                        String temp = "";
                        for (int i = 0; i < componente.length(); i++) {
                            char car = componente.charAt(index: i);
                            boolean cond = car >= 65 && c <= 90 || car >= 97 &&
                                    car <= 122 || c >= 49 && c <= 57;
                            if (cond) {
                                temp += car;
                            }
                        }
                        tipo = lexico.guarda(componente: temp) + "";
                        if (Integer.parseInt(s: tipo) < 20) {
                            clase = 1;
                        } else {
                            clase = 2;
                            pendiente = true;
                        }
                        tipo = "Dir TS";
                    }
                    case 112 -> {
                        clase = 3;
                        tipo = "Dir TS";
                        pendiente = true;
                    }
                    case 200 ->{
                        componente += c;
                        tipo = "Se esperaba un =";
                    }
                    case 201 ->{
                        componente += c;
                        tipo = "Carácter inválido";
                    }
                }
                if (!pendiente) {
                    n = fr.read();
                    c = (char) n;
                }
                System.out.println(componente + " | " + clase + " | " + tipo);
                pendiente = false;
                componente = "";
                q = 0;
            }
        } catch (FileNotFoundException ex) {
```



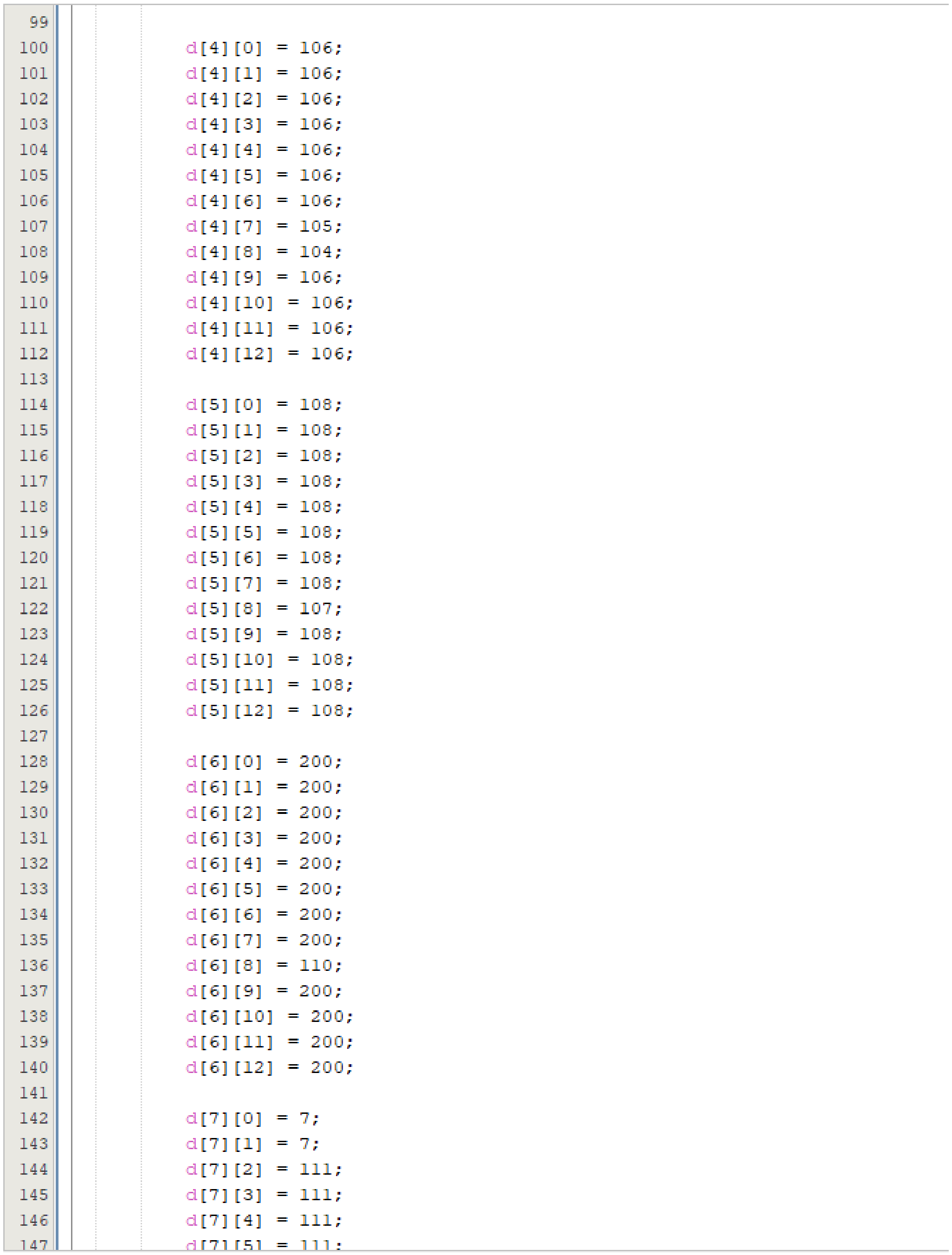
```
            Logger.getLogger(name: Main.class.getName()).log(level: Level.SEVERE, msg: null, thrown: ex);
        } catch (IOException ex) {
            Logger.getLogger(name: Main.class.getName()).log(level: Level.SEVERE, msg: null, thrown: ex);
        }
    }
}
```



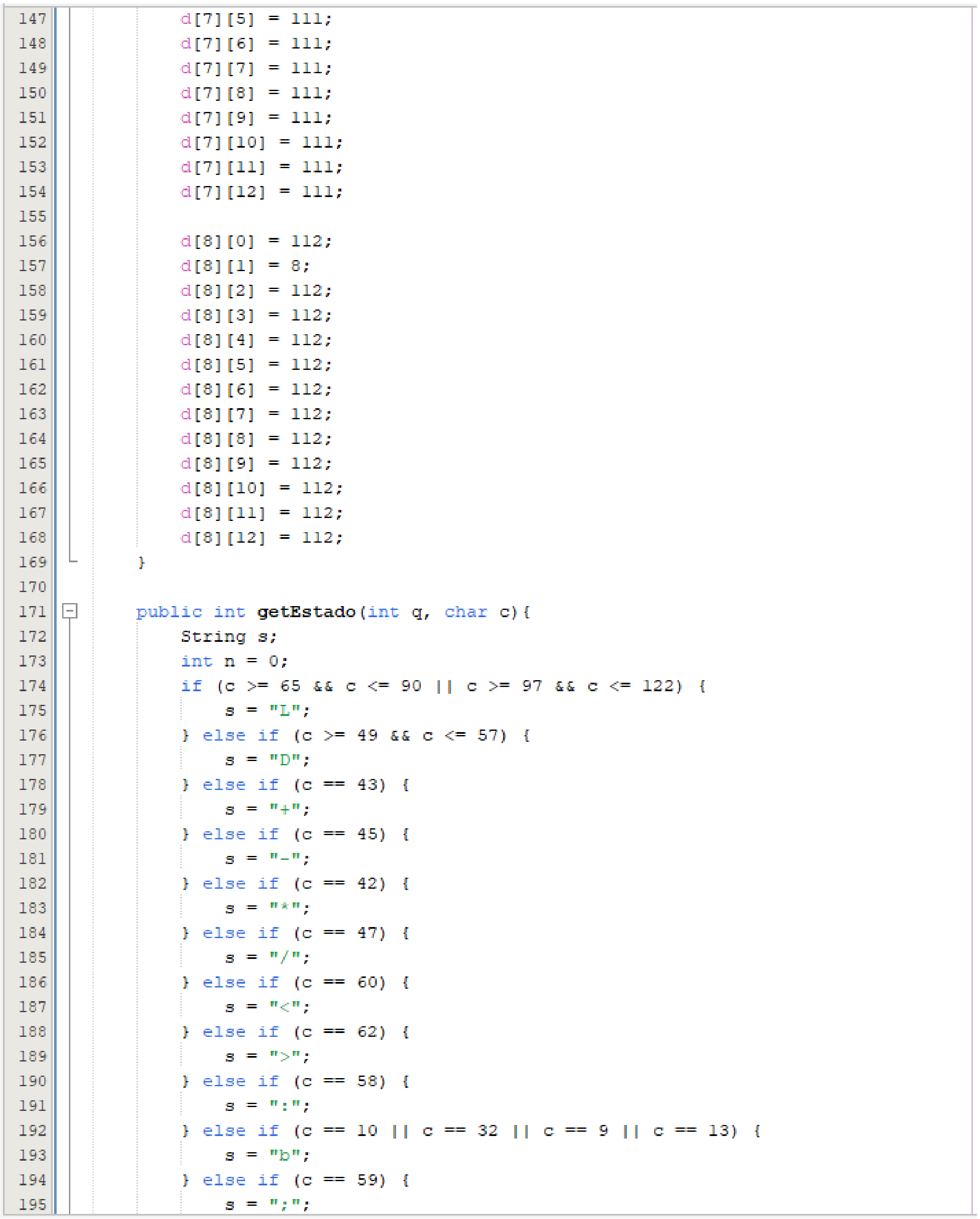
```java
// @author LuisR

public class AnalizadorLex {
    private final String[] tablaSimbolos = new String[35];
    private final String[] alfabeto = {
        "L", "D", "+", "-", "*", "/", "<", ">", "=", ":", "b", ";", "otro"
    };
    private final int[] q = new int[25];
    private final int[] f = new int[16];
    private final int[][] d = new int[9][13];

    public AnalizadorLex() {
        tablaSimbolos[0] = "PROGRAM";tablaSimbolos[1] = "END";
        tablaSimbolos[2] = "STEP";tablaSimbolos[3] = "TO";
        tablaSimbolos[4] = "ARRAY";tablaSimbolos[5] = "INTEGER";
        tablaSimbolos[6] = "CASE";tablaSimbolos[7] = "DO";
        tablaSimbolos[8] = "VAR";tablaSimbolos[9] = "IF";
        tablaSimbolos[10] = "ELSE";tablaSimbolos[11] = "WHILE";
        tablaSimbolos[12] = "CONST";tablaSimbolos[13] = "THEN";
        tablaSimbolos[14] = "CHAR";tablaSimbolos[15] = "REPEAT";
        tablaSimbolos[16] = "BEGIN";tablaSimbolos[17] = "REAL";
        tablaSimbolos[18] = "FOR";tablaSimbolos[19] = "UNTIL";
        tablaSimbolos[20] = "suma";tablaSimbolos[21] = "comparacion";
        tablaSimbolos[22] = "n1";tablaSimbolos[23] = "n2";
        tablaSimbolos[24] = "rs";
        for (int i = 0; i < 10; i++) {
            tablaSimbolos[25 + i] = i + "";
        }
        for (int i = 0; i <= 8; i++) {
            q[i] = i;
        }
        int n = 100;
        for (int i = 9; i <= 22; i++, n++) {
            q[i] = n;
        }
        n = 200;
        for (int i = 23; i <= 24; i++, n++) {
            q[i] = n;
        }
        for (int i = 9, n1 = 0; i < q.length; i++, n1++) {
            f[n1] = q[i];
        }

        d[0][0] = 7;
        d[0][1] = 8;
        d[0][2] = 101;
        d[0][3] = 102;
        d[0][4] = 103;
        d[0][5] = 1;
```



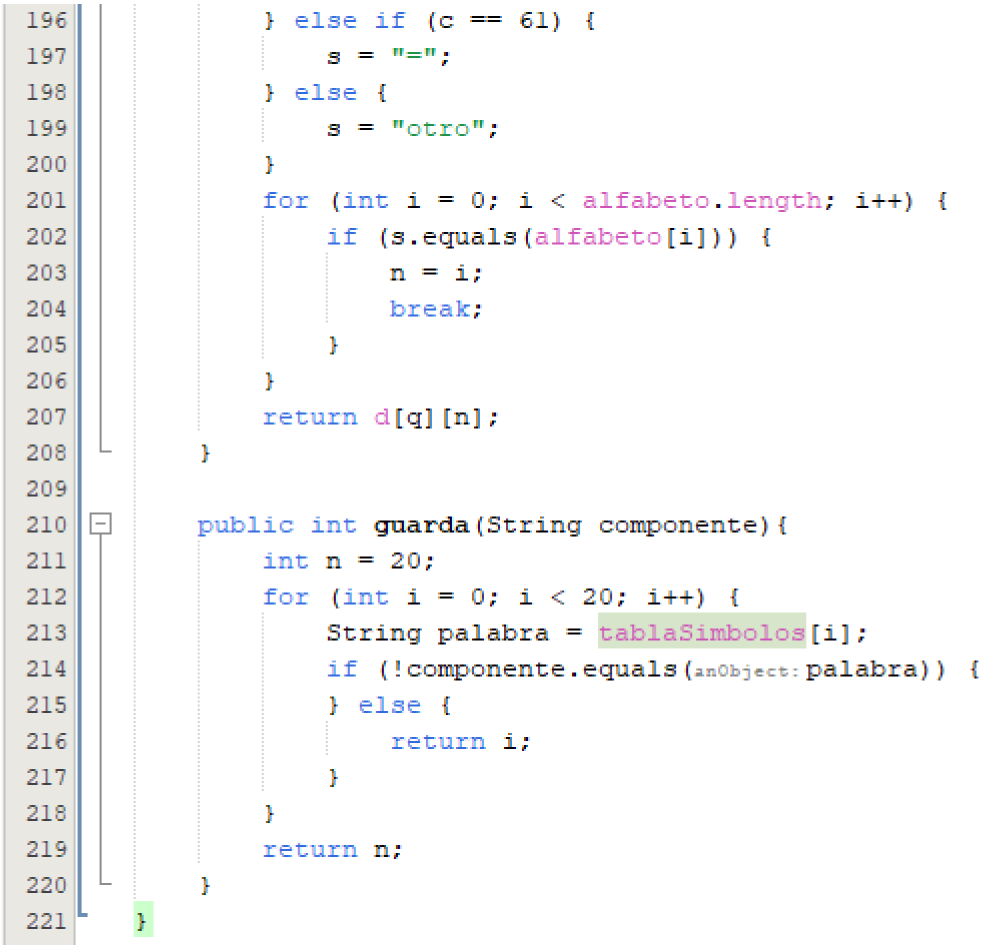
```
            d[0][6] = 4;
            d[0][7] = 5;
            d[0][8] = 109;
            d[0][9] = 6;
            d[0][10] = 0;
            d[0][11] = 113;
            d[0][12] = 201;

            d[1][0] = 100;
            d[1][1] = 100;
            d[1][2] = 100;
            d[1][3] = 100;
            d[1][4] = 100;
            d[1][5] = 2;
            d[1][6] = 100;
            d[1][7] = 100;
            d[1][8] = 100;
            d[1][9] = 100;
            d[1][10] = 100;
            d[1][11] = 100;
            d[1][12] = 100;

            d[2][0] = 2;
            d[2][1] = 2;
            d[2][2] = 2;
            d[2][3] = 2;
            d[2][4] = 3;
            d[2][5] = 2;
            d[2][6] = 2;
            d[2][7] = 2;
            d[2][8] = 2;
            d[2][9] = 2;
            d[2][10] = 2;
            d[2][11] = 2;
            d[2][12] = 2;

            d[3][0] = 2;
            d[3][1] = 2;
            d[3][2] = 2;
            d[3][3] = 2;
            d[3][4] = 2;
            d[3][5] = 0;
            d[3][6] = 2;
            d[3][7] = 2;
            d[3][8] = 2;
            d[3][9] = 2;
            d[3][10] = 2;
            d[3][11] = 2;
            d[3][12] = 2;
```



```
            d[4][0] = 106;
            d[4][1] = 106;
            d[4][2] = 106;
            d[4][3] = 106;
            d[4][4] = 106;
            d[4][5] = 106;
            d[4][6] = 106;
            d[4][7] = 105;
            d[4][8] = 104;
            d[4][9] = 106;
            d[4][10] = 106;
            d[4][11] = 106;
            d[4][12] = 106;

            d[5][0] = 108;
            d[5][1] = 108;
            d[5][2] = 108;
            d[5][3] = 108;
            d[5][4] = 108;
            d[5][5] = 108;
            d[5][6] = 108;
            d[5][7] = 108;
            d[5][8] = 107;
            d[5][9] = 108;
            d[5][10] = 108;
            d[5][11] = 108;
            d[5][12] = 108;

            d[6][0] = 200;
            d[6][1] = 200;
            d[6][2] = 200;
            d[6][3] = 200;
            d[6][4] = 200;
            d[6][5] = 200;
            d[6][6] = 200;
            d[6][7] = 200;
            d[6][8] = 110;
            d[6][9] = 200;
            d[6][10] = 200;
            d[6][11] = 200;
            d[6][12] = 200;

            d[7][0] = 7;
            d[7][1] = 7;
            d[7][2] = 111;
            d[7][3] = 111;
            d[7][4] = 111;
            d[7][5] = 111;
```



```
        d[7][5] = 111;
        d[7][6] = 111;
        d[7][7] = 111;
        d[7][8] = 111;
        d[7][9] = 111;
        d[7][10] = 111;
        d[7][11] = 111;
        d[7][12] = 111;

        d[8][0] = 112;
        d[8][1] = 8;
        d[8][2] = 112;
        d[8][3] = 112;
        d[8][4] = 112;
        d[8][5] = 112;
        d[8][6] = 112;
        d[8][7] = 112;
        d[8][8] = 112;
        d[8][9] = 112;
        d[8][10] = 112;
        d[8][11] = 112;
        d[8][12] = 112;
    }

    public int getEstado(int q, char c){
        String s;
        int n = 0;
        if (c >= 65 && c <= 90 || c >= 97 && c <= 122) {
            s = "L";
        } else if (c >= 49 && c <= 57) {
            s = "D";
        } else if (c == 43) {
            s = "+";
        } else if (c == 45) {
            s = "-";
        } else if (c == 42) {
            s = "*";
        } else if (c == 47) {
            s = "/";
        } else if (c == 60) {
            s = "<";
        } else if (c == 62) {
            s = ">";
        } else if (c == 58) {
            s = ":";
        } else if (c == 10 || c == 32 || c == 9 || c == 13) {
            s = "b";
        } else if (c == 59) {
            s = ";";
```
]



```
        } else if (c == 61) {
            s = "=";
        } else {
            s = "otro";
        }
        for (int i = 0; i < alfabeto.length; i++) {
            if (s.equals(alfabeto[i])) {
                n = i;
                break;
            }
        }
        return d[q][n];
    }

    public int guarda(String componente){
        int n = 20;
        for (int i = 0; i < 20; i++) {
            String palabra = tablaSimbolos[i];
            if (!componente.equals(anObject: palabra)) {
            } else {
                return i;
            }
        }
        return n;
    }
}
```