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package edu.sdsu.cs;

import edu.sdsu.cs.datastructures.DirectedGraph;

import java.io.File;
import java.io.FileNotFoundException;
import java.util.Scanner;

/**
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 * }
 * Course: CS-310
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 * Exercise: Programming Assignment #3
 */
public class App {
    public static void main(String[] args) throws FileNotFoundException {
        String path = ValidateArgument(args);

        try {
            File file = new File(path);
            Scanner reader = new Scanner(file);
            DirectedGraph<String> graph = new DirectedGraph<>();
            while (reader.hasNextLine()) {
                String[] strings = reader.nextLine().split(",");
                if (strings.length == 0) {
                    graph.add(strings[0]);
                } else {
                    graph.add(strings[0]);
                    graph.add(strings[1]);
                    graph.connect(strings[0], strings[1]);
                }
            }

            System.out.println(graph.size());
        } catch (Exception ex) {
            System.out.println(ex.getMessage());
        }
    }

    private static String ValidateArgument(String[] args) {
        try {
            ValidateLength(args);
            ValidateExtension(args);
            return args[0];
        } catch (Exception ex) {
            System.out.println("Due to following exception, default path will be used");
            System.out.println("Exception: " + ex.getMessage());
            return "layout.csv";
        }
    }

    private static void ValidateExtension(String[] args) throws Exception {

```

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String path = args[0];
int last_index_before_extension = path.lastIndexOf(".");
String extension = path.substring(last_index_before_extension);

if (!extension.equals(".csv"))
    throw new Exception("File has an inappropriate extension");
}

private static void ValidateLength(String[] args) throws Exception {
    if (args.length == 0)
        throw new Exception("File path not provided");
    else if (args.length > 1)
        throw new Exception("Multiple possible paths provided");
}
}
```