

```
Windows PowerShell      x + v - □ ×
PS C:\Users\Raz\Desktop\GBC\COMP3133\Labs\Lab1> node index.js
Finished reading CSV file.
Wrote 12 rows to C:\Users\Raz\Desktop\GBC\COMP3133\Labs\Lab1\canada.txt
Wrote 12 rows to C:\Users\Raz\Desktop\GBC\COMP3133\Labs\Lab1\usa.txt
All files written.
PS C:\Users\Raz\Desktop\GBC\COMP3133\Labs\Lab1> |
```

A screenshot of a text editor window titled "canada.txt". The window has a light gray header bar with standard window controls (minimize, maximize, close) and a toolbar below it with icons for file operations, text styling (H1, B, I, A), and other document functions.

The main content area displays a list of data entries, each consisting of three comma-separated values: "country", "year", and "population". The entries are:

- Canada,1952,14785584
- Canada,1957,17010154
- Canada,1962,18985849
- Canada,1967,20819767
- Canada,1972,22284500
- Canada,1977,23796400
- Canada,1982,25201900
- Canada,1987,26549700
- Canada,1992,28523502
- Canada,1997,30305843
- Canada,2002,31902268
- Canada,2007,33390141

At the bottom of the editor window, there is a status bar with the following information: "Ln 13, Col 21 | 276 characters", "Plain text", "100%", "Unix (LF)", and "UTF-8".

```
country,year,population
Canada,1952,14785584
Canada,1957,17010154
Canada,1962,18985849
Canada,1967,20819767
Canada,1972,22284500
Canada,1977,23796400
Canada,1982,25201900
Canada,1987,26549700
Canada,1992,28523502
Canada,1997,30305843
Canada,2002,31902268
Canada,2007,33390141|
```

The screenshot shows a text editor interface with two tabs: "canada.txt" and "usa.txt". The "usa.txt" tab is active, displaying the following content:

```
country,year,population
United States,1952,157553000
United States,1957,171984000
United States,1962,186538000
United States,1967,198712000
United States,1972,209896000
United States,1977,220239000
United States,1982,232187835
United States,1987,242803533
United States,1992,256894189
United States,1997,272911760
United States,2002,287675526
United States,2007,301139947
```

At the bottom of the editor, there are status indicators: "Ln 1, Col 1 | 372 characters | Plain text | 100% | Unix (LF) | UTF-8".

The screenshot shows a code editor interface with a dark theme. On the left is the Explorer sidebar, which lists files and folders: node_modules, .gitignore, index.js, input_countries.csv, package-lock.json, package.json, and usa.txt. The main area displays the content of index.js:

```
// index.js
1 // index.js
2
3 const fs = require('fs');
4 const path = require("path");
5 const csv = require("csv-parser");
6
7 // Input and output file paths
8 const INPUT_FILE = path.join(__dirname, "input_countries.csv");
9 const CANADA_FILE = path.join(__dirname, "canada.txt");
10 const USA_FILE = path.join(__dirname, "usa.txt");
11
12 // a) delete canada.txt and usa.txt if they already exist
13 [CANADA_FILE, USA_FILE].forEach(filePath => {
14   if (fs.existsSync(filePath)) {
15     fs.unlinkSync(filePath);
16     console.log(`Deleted existing file: ${filePath}`);
17   }
18 });
19
20 // arrays to store filtered rows
21 const canadaRows = [];
22 const usaRows = [];
23
24 // read CSV using stream + csv-parser
25 fs.createReadStream(INPUT_FILE)
26   .pipe(csv())
27   .on("data", (row) => {
28     // Normalize country name to lower case for safer comparison
29     const country = String(row.country || row.Country || "").toLowerCase();
30
31     if (country === "canada") {
32       canadaRows.push(row);
33     } else if (
34       country === "united states" ||
35       country === "united states of america" ||
36       country === "usa"
37     ) {
38       usaRows.push(row);
39     }
40   })
41   .on("end", () => {
42     console.log("Finished reading CSV file.");
43
44     // b) write Canada data to canada.txt
45     writeCountryFile(CANADA_FILE, canadaRows, "canada");
46
47     // c) write United States data to usa.txt
48     writeCountryFile(USA_FILE, usaRows, "united states");
49   });
50
```

At the bottom of the editor, status bar text includes: In 15, Col 29, Spaces: 4, UTF-8, CRLF, JavaScript, Go Live.