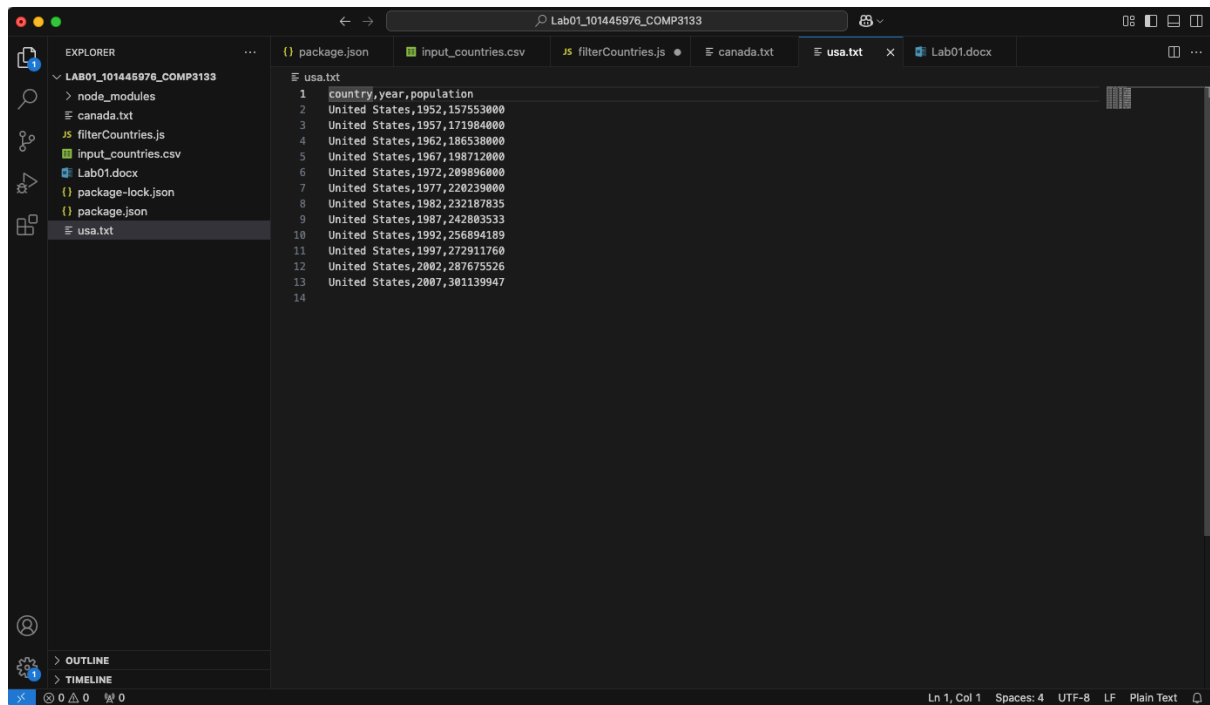


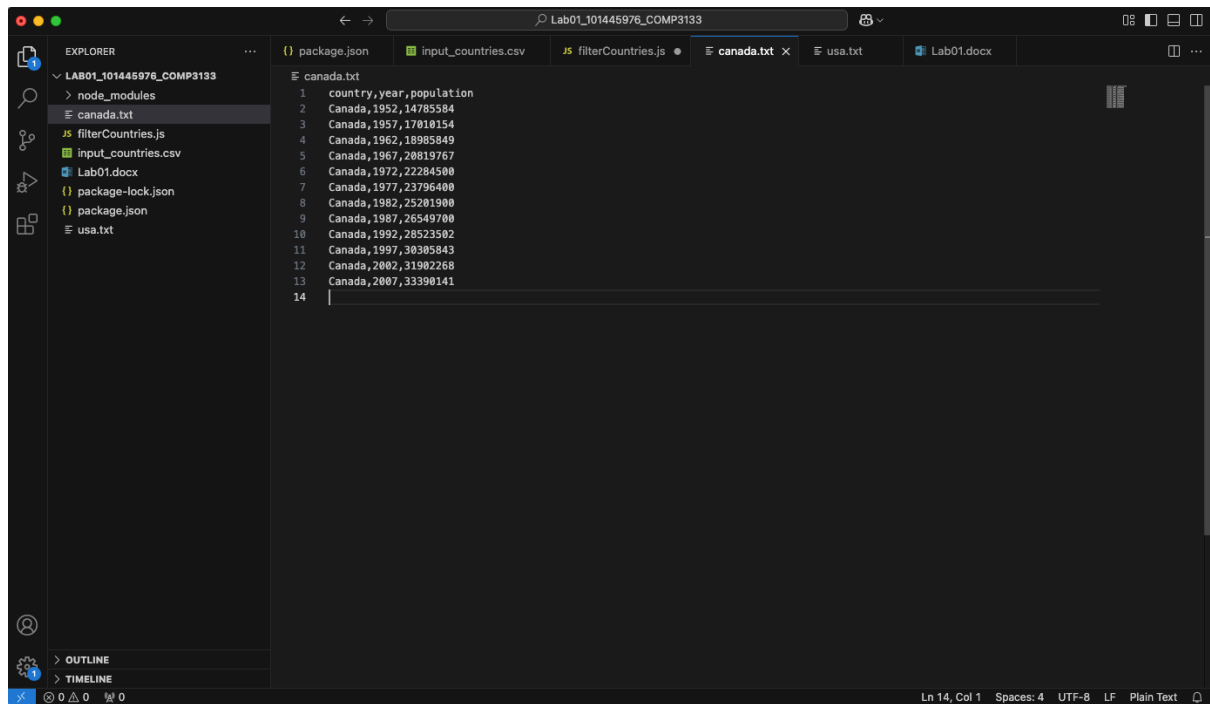
Canada.txt



The screenshot shows the Visual Studio Code editor interface. The Explorer sidebar on the left displays the file structure of the project 'LAB01_101445976_COMP3133', with 'usa.txt' selected. The main editor window shows the content of 'usa.txt', which is a CSV file with 14 lines of data. The status bar at the bottom indicates the cursor is at line 1, column 1, with 4 spaces, in UTF-8 encoding, LF line endings, and Plain Text format.

```
1 country,year,population
2 United States,1952,157553000
3 United States,1957,171984000
4 United States,1962,186538000
5 United States,1967,198712000
6 United States,1972,209896000
7 United States,1977,220239000
8 United States,1982,232187835
9 United States,1987,242803533
10 United States,1992,256894189
11 United States,1997,272911760
12 United States,2002,287675526
13 United States,2007,301139947
14
```

Usa.txt



The screenshot shows the Visual Studio Code editor interface. The Explorer sidebar on the left displays the file structure of the project 'LAB01_101445976_COMP3133', with 'canada.txt' selected. The main editor window shows the content of 'canada.txt', which is a CSV file with 14 lines of data. The status bar at the bottom indicates the cursor is at line 14, column 1, with 4 spaces, in UTF-8 encoding, LF line endings, and Plain Text format.

```
1 country,year,population
2 Canada,1952,14785584
3 Canada,1957,17018154
4 Canada,1962,18985849
5 Canada,1967,20819767
6 Canada,1972,22284500
7 Canada,1977,23796400
8 Canada,1982,25201900
9 Canada,1987,26549700
10 Canada,1992,28523502
11 Canada,1997,30305843
12 Canada,2002,31902268
13 Canada,2007,33398141
14
```

Code

```
1  const fs = require('fs');
2  const csv = require('csv-parser');
3
4  // File names
5  const inputFile = 'input_countries.csv';
6  const canadaFile = 'canada.txt';
7  const usaFile = 'usa.txt';
8
9  // Delete existing files if they exist
10 [canadaFile, usaFile].forEach((file) => {
11   if (fs.existsSync(file)) {
12     fs.unlinkSync(file);
13     console.log(`${file} deleted.`);
14   }
15 });
16
17 //Create writable streams for canada.txt and usa.txt
18 const canadaStream = fs.createWriteStream(canadaFile);
19 const usaStream = fs.createWriteStream(usaFile);
20
21 //Write headers to both output files
22 canadaStream.write('country,year,population\n');
23 usaStream.write('country,year,population\n');
24
25 //Read and filter data from the CSV
26 fs.createReadStream(inputFile)
27   .pipe(csv())
28   .on('data', (row) => {
29     // Filter and write Canada data
30     if (row.country.toLowerCase() === 'canada') {
31       canadaStream.write(`${row.country},${row.year},${row.population}\n`);
32     }
33     // Filter and write USA data
34     else if (row.country.toLowerCase() === 'united states') {
35       usaStream.write(`${row.country},${row.year},${row.population}\n`);
36     }
37   })
38   .on('end', () => {
39     console.log('CSV file processed.');
```