

Problem 1

```
C:\Users\oscar\Coding Projects\CSULB\CECS 275 FALL 2021\Lab 2>g++ sum_digit.cpp -o main.exe
```

```
C:\Users\oscar\Coding Projects\CSULB\CECS 275 FALL 2021\Lab 2>main
```

```
Please enter a positive integer: -5
```

```
Positive integers are whole numbers greater than 0. Please try again.
```

```
Please enter a positive integer: 0
```

```
Positive integers are whole numbers greater than 0. Please try again.
```

```
Please enter a positive integer: 111
```

```
You have entered 111.
```

```
The sum of all the digits in 111 is 3.
```

```
Please enter a positive integer: 99999
```

```
You have entered 99999.
```

```
The sum of all the digits in 99999 is 45.
```

```
Please enter a positive integer: P^C
```

```
C:\Users\oscar\Coding Projects\CSULB\CECS 275 FALL 2021\Lab 2>
```

```

1  /*
2   * Sum of All Digits Calculator
3   * CECS 275 - Fall 2021
4   * @author Rodrigo Becerril Ferreyra
5   * @author Ethan Hua
6   * @version 3
7   */
8  #include <iostream>
9
10 int main()
11 {
12     int user_value, total, old_value;
13     // The following while loop runs until the user inputs a positive integer.
14     while(true)
15     {
16         std::cout << "Please enter a positive integer: ";
17         std::cin >> user_value;
18         if(user_value <= 0)
19         {
20             std::cout << "Positive integers are whole numbers greater than 0. "
21                 << "Please try again." << std::endl;
22             continue;
23         }
24
25         std::cout << "You have entered " << user_value << "." << std::endl;
26
27         // The variable total will hold the final answer.
28         // The variable old_value holds the user's input, which is necessary
29         // because the variable user_value will be modified in the process of
30         // finding the answer.
31         total = 0; old_value = user_value;
32         // user_value being 0 means that the variable was one digit in this
33         // iteration, and that there are no more digits to total.
34         while(user_value != 0)
35         {
36             // The expression "% 10" returns the most insignificant digit
37             // (in decimal): for example, 90121 % 10 returns 1.
38             total += user_value % 10;
39             // Due to the properties of integer division, dividing by 10
40             // removes the variable's least significant digit.
41             user_value /= 10;
42         }
43
44         std::cout << "The sum of all the digits in " << old_value << " is "
45             << total << "." << std::endl;
46     }
47 }
48

```

Problem 2

```
1:*
2:**
3:**
4:*****
5:**
6:*****
7:**
8:*
9:***
10:***
11:**
12:***
13:
14:**
15:*
16:****
17:
18:**
19:**
20:
21:
22:**
23:**
24:*
25:
26:****
27:***
28:***
29:*
30:***
31:****
32:**
33:***
34:***
35:*
36:***
37:*
38:*
39:*
40:
41:**
42:
43:***
44:***
45:***
46:
47:***
48:*
49:*
50:**
#6 occurs the most.
There are 100 numbers.
The average is 23.65.
```

```
1:
2:
3:
4:*
5:
6:
7:
8:
9:
10:
11:
12:
13:
14:
15:
16:
17:
18:
19:
20:
21:
22:
23:
24:
25:
26:
27:
28:
29:
30:
31:
32:
33:
34:
35:
36:
37:
38:
39:
40:
41:
42:
43:
44:
45:
46:
47:
48:
49:
50:
#4 occurs the most.
There is 1 number.
The average is 4.00.
```

```
1:*
2:*****
3:**
4:*
5:
6:
7:
8:*****
9:**
10:*
11:
12:*
13:*
14:
15:
16:
17:**
18:
19:
20:*
21:*
22:*
23:
24:
25:
26:
27:
28:**
29:
30:*
31:
32:
33:*
34:
35:
36:**
37:*
38:
39:
40:
41:
42:
43:*
44:
45:
46:
47:
48:*
49:
50:**
#2 and #8 occur the most.
There are 38 numbers.
The average is 16.92.
```

```
1:
2:
3:*
4:
5:*
6:*****
7:*
8:*****
9:**
10:*
11:*
12:*
13:*
14:
15:
16:*
17:*
18:
19:
20:
21:*
22:*****
23:
24:*
25:
26:*
27:
28:*
29:
30:
31:*
32:*
33:*
34:
35:
36:
37:*
38:
39:
40:
41:*
42:*
43:
44:*
45:
46:
47:
48:*
49:*
50:****
#6, #8, and #22 occur the most.
There are 52 numbers.
The average is 20.31.
```

```
1:****
2:****
3:****
4:*
5:
6:***
7:*
8:
9:***
10:
11:*
12:*
13:*
14:*
15:****
16:*
17:*
18:*
19:***
20:****
21:
22:
23:
24:**
25:
26:**
27:**
28:
29:
30:
31:***
32:
33:
34:
35:
36:
37:
38:
39:
40:
41:
42:
43:
44:
45:
46:
47:
48:
49:****
50:
#1, #2, #3, #15, #20, and #49 occur the most.
There are 51 numbers.
The average is 16.10.
```

FileEditSelectionViewGoRunTerminalHelpdata_processing.cpp - 275 - Visual Studio Code

EXPLORER

OPEN EDITORS

data_processing.cpp lab2/files

frequency.txt lab2

data.txt lab2

> 275

OUTLINE

lab2 > files > data_processing.cpp > ...

```
1  /*
2  * This C++ program reads numbers from a text file and processes frequencies
3  * of the values within the file to be printed in a new text file.
4  * CECS 275 - Fall 2021
5  * @author Ethan Hua
6  * @author Rodrigo Becerril Ferreyra
7  * @version 3.8
8  *
9  */
10
11 #include <iostream>
12 #include <fstream>
13 #include <iomanip>
14
15 using namespace std;
16
17 int main(){
18
19     ifstream inFile;
20     ofstream outFile;
21
22     int numbers = 1;    // loop control for star printing
23     int data;           // data file input storage
24     char comma;         // data file "comma" character storage
25     double iterCount = 0; // running counter for numbers in file
26
27     // running counters for data occurrences
28     int count1 = 0; int count2 = 0; int count3 = 0; int count4 = 0;
29     int count5 = 0; int count6 = 0; int count7 = 0; int count8 = 0;
30     int count9 = 0; int count10 = 0; int count11 = 0; int count12 = 0;
31     int count13 = 0; int count14 = 0; int count15 = 0; int count16 = 0;
32     int count17 = 0; int count18 = 0; int count19 = 0; int count20 = 0;
33     int count21 = 0; int count22 = 0; int count23 = 0; int count24 = 0;
34     int count25 = 0; int count26 = 0; int count27 = 0; int count28 = 0;
35     int count29 = 0; int count30 = 0; int count31 = 0; int count32 = 0;
36     int count33 = 0; int count34 = 0; int count35 = 0; int count36 = 0;
37     int count37 = 0; int count38 = 0; int count39 = 0; int count40 = 0;
38     int count41 = 0; int count42 = 0; int count43 = 0; int count44 = 0;
39     int count45 = 0; int count46 = 0; int count47 = 0; int count48 = 0;
40     int count49 = 0; int count50 = 0;
41
42     // variable used to store value of average of all numbers
43     double average;
44
45     inFile.open("data.txt");
46
```

Ln 1865, Col 1 Spaces: 4 UTF-8 CRLF C++ 3 Spell

FileEditSelectionViewGoRunTerminalHelpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files
frequency.txt lab2
data.txt lab2
275
OUTLINE

46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91

```
if(inFile){  
  
    cout << "File found." << endl;  
  
    // while loop runs until end of file  
    while(inFile >> data){  
  
        // iterCount is the amount of numbers there are in the file.  
        iterCount++;  
  
        // cout << data << endl;  
  
        // This switch statement increments the associated counter variable  
        // of the number encountered when reading the data.  
        switch(data){  
            case 1: count1++;  
                break;  
            case 2: count2++;  
                break;  
            case 3: count3++;  
                break;  
            case 4: count4++;  
                break;  
            case 5: count5++;  
                break;  
            case 6: count6++;  
                break;  
            case 7: count7++;  
                break;  
            case 8: count8++;  
                break;  
            case 9: count9++;  
                break;  
            case 10: count10++;  
                break;  
            case 11: count11++;  
                break;  
            case 12: count12++;  
                break;  
            case 13: count13++;  
                break;  
            case 14: count14++;  
                break;  
            case 15: count15++;  
                break;  
        }  
    }  
}
```

Ln 1864, Col 1 Spaces: 4 UTF-8 CRLF C++ 3 Spell

FileEditSelectionViewGoRunTerminalHelpdata_processing.cpp - 275 - Visual Studio Code

EXPLORER

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files

frequency.txt lab2

data.txt lab2

> 275

> OUTLINE

lab2 > files > data_processing.cpp > ...

90

91

92

93

94

95

96

97

98

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

case 15: count15++;

break;

case 16: count16++;

break;

case 17: count17++;

break;

case 18: count18++;

break;

case 19: count19++;

break;

case 20: count20++;

break;

case 21: count21++;

break;

case 22: count22++;

break;

case 23: count23++;

break;

case 24: count24++;

break;

case 25: count25++;

break;

case 26: count26++;

break;

case 27: count27++;

break;

case 28: count28++;

break;

case 29: count29++;

break;

case 30: count30++;

break;

case 31: count31++;

break;

case 32: count32++;

break;

case 33: count33++;

break;

case 34: count34++;

break;

case 35: count35++;

break;

case 36: count36++;

break;

case 37: count37++;

break;

case 38: count38++;

break;

0003

Ln 1864, Col 1Spaces: 4UTF-8CRLF++3 Spell

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORER

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files

frequency.txt lab2

data.txt lab2

> 275

OUTLINE

lab2 > files > data_processing.cpp > ...

```
135         break;
136     case 38: count38++;
137         break;
138     case 39: count39++;
139         break;
140     case 40: count40++;
141         break;
142     case 41: count41++;
143         break;
144     case 42: count42++;
145         break;
146     case 43: count43++;
147         break;
148     case 44: count44++;
149         break;
150     case 45: count45++;
151         break;
152     case 46: count46++;
153         break;
154     case 47: count47++;
155         break;
156     case 48: count48++;
157         break;
158     case 49: count49++;
159         break;
160     case 50: count50++;
161         break;
162     default: {
163         // cout << "Number out of index @ " << iterCount << "." << endl;
164         // cout << "Retracting iteration count." << endl;
165         iterCount -= 1;
166     }
167 }
168
169 // This is a way to ensure that the next read will read data,
170 // not a comma.
171 inFile >> comma;
172
173
174 inFile.close();
175
176 average = (1*count1 + 2*count2 + 3*count3 + 4*count4 + 5*count5 +
177           6*count6 + 7*count7 + 8*count8 + 9*count9 + 10*count10 +
178           11*count11 + 12*count12 + 13*count13 + 14*count14 + 15*count15 +
179           16*count16 + 17*count17 + 18*count18 + 19*count19 + 20*count20 +
180           21*count21 + 22*count22 + 23*count23 + 24*count24 + 25*count25 +
```

Ln 1864, Col 1 Spaces: 4 UTF-8 CRLF C++ 3 Spell

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2 > files > data_processing.cpp x frequency.txt data.txt

OPEN EDITORSdata_processing.cpp lab2\filesfrequency.txt lab2data.txt lab2

275OUTLINE

lab2 > files > data_processing.cpp > ...
18021*count21 + 22*count22 + 23*count23 + 24*count24 + 25*count25 +
18126*count26 + 27*count27 + 28*count28 + 29*count29 + 30*count30 +
18231*count31 + 32*count32 + 33*count33 + 34*count34 + 35*count35 +
18336*count36 + 37*count37 + 38*count38 + 39*count39 + 40*count40 +
18441*count41 + 42*count42 + 43*count43 + 44*count44 + 45*count45 +
18546*count46 + 47*count47 + 48*count48 + 49*count49 + 50*count50)
186/ iterCount;
187
188outFile.open("frequency.txt");
189
190// This for loop prints stars equal to the number of occurrences in
191// the data file.
192for(numbers = 1; numbers < 51; numbers++){
193outFile << numbers << ":";
194switch(numbers){
195case 1: {
196for(int stars = 0; stars < count1; stars++)
197outFile << "*";
198outFile << endl;
199break;
200}
201case 2: {
202for(int stars = 0; stars < count2; stars++)
203outFile << "*";
204outFile << endl;
205break;
206}
207case 3: {
208for(int stars = 0; stars < count3; stars++)
209outFile << "*";
210outFile << endl;
211break;
212}
213case 4: {
214for(int stars = 0; stars < count4; stars++)
215outFile << "*";
216outFile << endl;
217break;
218}
219case 5: {
220for(int stars = 0; stars < count5; stars++)
221outFile << "*";
222outFile << endl;
223break;
224}
225case 6: {

Ln 1864, Col 1Spaces: 4UTF-8CRLFC++3 Spell

FileEditSelectionViewGoRunTerminalHelpdata_processing.cpp - 275 - Visual Studio Code

EXPLORER

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files

frequency.txt lab2

data.txt lab2

> 275

OUTLINE

lab2 > files > data_processing.cpp > ...

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

case 6: {

for(int stars = 0; stars < count6; stars++)

outFile << "*";

outFile << endl;

break;

}

case 7: {

for(int stars = 0; stars < count7; stars++)

outFile << "*";

outFile << endl;

break;

}

case 8: {

for(int stars = 0; stars < count8; stars++)

outFile << "*";

outFile << endl;

break;

}

case 9: {

for(int stars = 0; stars < count9; stars++)

outFile << "*";

outFile << endl;

break;

}

case 10: {

for(int stars = 0; stars < count10; stars++)

outFile << "*";

outFile << endl;

break;

}

case 11: {

for(int stars = 0; stars < count11; stars++)

outFile << "*";

outFile << endl;

break;

}

case 12: {

for(int stars = 0; stars < count12; stars++)

outFile << "*";

outFile << endl;

break;

}

case 13: {

for(int stars = 0; stars < count13; stars++)

outFile << "*";

outFile << endl;

0 0 0 3

Ln 1864, Col 1Spaces: 4UTF-8CRLFC++3 Spell

FileEditSelectionViewGoRunTerminalHelpdata_processing.cpp - 275 - Visual Studio Code

EXPLORER

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files
frequency.txt lab2
data.txt lab2

> 275

> OUTLINE

lab2 > files > data_processing.cpp > ...

269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314

```
        outFile << " ";  
        outFile << endl;  
        break;  
    }  
    case 14: {  
        for(int stars = 0; stars < count14; stars++)  
            outFile << "*";  
        outFile << endl;  
        break;  
    }  
    case 15: {  
        for(int stars = 0; stars < count15; stars++)  
            outFile << "*";  
        outFile << endl;  
        break;  
    }  
    case 16: {  
        for(int stars = 0; stars < count16; stars++)  
            outFile << "*";  
        outFile << endl;  
        break;  
    }  
    case 17: {  
        for(int stars = 0; stars < count17; stars++)  
            outFile << "*";  
        outFile << endl;  
        break;  
    }  
    case 18: {  
        for(int stars = 0; stars < count18; stars++)  
            outFile << "*";  
        outFile << endl;  
        break;  
    }  
    case 19: {  
        for(int stars = 0; stars < count19; stars++)  
            outFile << "*";  
        outFile << endl;  
        break;  
    }  
    case 20: {  
        for(int stars = 0; stars < count20; stars++)  
            outFile << "*";  
        outFile << endl;  
        break;  
    }  
}
```

0 0 0 3

Ln 1864, Col 1 Spaces: 4 UTF-8 CRLF C++ 3 Spell

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORER

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files

frequency.txt lab2

data.txt lab2

> 275

> OUTLINE

lab2 > files > data_processing.cpp > ...

```
314 }
315
316 case 21: {
317     for(int stars = 0; stars < count21; stars++)
318         outFile << "*";
319     outFile << endl;
320     break;
321 }
322 case 22: {
323     for(int stars = 0; stars < count22; stars++)
324         outFile << "*";
325     outFile << endl;
326     break;
327 }
328 case 23: {
329     for(int stars = 0; stars < count23; stars++)
330         outFile << "*";
331     outFile << endl;
332     break;
333 }
334 case 24: {
335     for(int stars = 0; stars < count24; stars++)
336         outFile << "*";
337     outFile << endl;
338     break;
339 }
340 case 25: {
341     for(int stars = 0; stars < count25; stars++)
342         outFile << "*";
343     outFile << endl;
344     break;
345 }
346 case 26: {
347     for(int stars = 0; stars < count26; stars++)
348         outFile << "*";
349     outFile << endl;
350     break;
351 }
352 case 27: {
353     for(int stars = 0; stars < count27; stars++)
354         outFile << "*";
355     outFile << endl;
356     break;
357 }
358 case 28: {
359     for(int stars = 0; stars < count28; stars++)
360         outFile << "*";
361     outFile << endl;
362     break;
363 }
364 }
```

Ln 1864, Col 1 Spaces: 4 UTF-8 CRLF C++ 3 Spell

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2 > files > data_processing.cpp x frequency.txt data.txt

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files
frequency.txt lab2
data.txt lab2
> 275
> OUTLINE

359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404

```
        outFile << "*";
        outFile << endl;
        break;
    }
    case 29: {
        for(int stars = 0; stars < count29; stars++)
            outFile << "*";
        outFile << endl;
        break;
    }
    case 30: {
        for(int stars = 0; stars < count30; stars++)
            outFile << "*";
        outFile << endl;
        break;
    }
    case 31: {
        for(int stars = 0; stars < count31; stars++)
            outFile << "*";
        outFile << endl;
        break;
    }
    case 32: {
        for(int stars = 0; stars < count32; stars++)
            outFile << "*";
        outFile << endl;
        break;
    }
    case 33: {
        for(int stars = 0; stars < count33; stars++)
            outFile << "*";
        outFile << endl;
        break;
    }
    case 34: {
        for(int stars = 0; stars < count34; stars++)
            outFile << "*";
        outFile << endl;
        break;
    }
    case 35: {
        for(int stars = 0; stars < count35; stars++)
            outFile << "*";
        outFile << endl;
        break;
    }
}
```

Ln 1864, Col 1 Spaces: 4 UTF-8 CRLF C++ 3 Spell

FileEditSelectionViewGoRunTerminalHelpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2 > files > data_processing.cpp > ...
data_processing.cpp lab2\files
frequency.txt lab2
data.txt lab2
275
OUTLINE

lab2 > files > data_processing.cpp > ...

```
404 }
405 case 36: {
406     for(int stars = 0; stars < count36; stars++)
407         outFile << "***";
408     outFile << endl;
409     break;
410 }
411 case 37: {
412     for(int stars = 0; stars < count37; stars++)
413         outFile << "***";
414     outFile << endl;
415     break;
416 }
417 case 38: {
418     for(int stars = 0; stars < count38; stars++)
419         outFile << "***";
420     outFile << endl;
421     break;
422 }
423 case 39: {
424     for(int stars = 0; stars < count39; stars++)
425         outFile << "***";
426     outFile << endl;
427     break;
428 }
429 case 40: {
430     for(int stars = 0; stars < count40; stars++)
431         outFile << "***";
432     outFile << endl;
433     break;
434 }
435 case 41: {
436     for(int stars = 0; stars < count41; stars++)
437         outFile << "***";
438     outFile << endl;
439     break;
440 }
441 case 42: {
442     for(int stars = 0; stars < count42; stars++)
443         outFile << "***";
444     outFile << endl;
445     break;
446 }
447 case 43: {
448     for(int stars = 0; stars < count43; stars++)
449         outFile << "***";
```

Ln 1864, Col 1 Spaces: 4 UTF-8 CRLF C++ 3 Spell

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2 > files > data_processing.cpp x frequency.txt data.txt

OPEN EDITORSdata_processing.cpp lab2\filesfrequency.txt lab2data.txt lab2

275

OUTLINE

lab2 > files > data_processing.cpp > ...

```
448     for(int stars = 0; stars < count43; stars++)
449         outFile << "***";
450     outFile << endl;
451     break;
452 }
453 case 44: {
454     for(int stars = 0; stars < count44; stars++)
455         outFile << "***";
456     outFile << endl;
457     break;
458 }
459 case 45: {
460     for(int stars = 0; stars < count45; stars++)
461         outFile << "***";
462     outFile << endl;
463     break;
464 }
465 case 46: {
466     for(int stars = 0; stars < count46; stars++)
467         outFile << "***";
468     outFile << endl;
469     break;
470 }
471 case 47: {
472     for(int stars = 0; stars < count47; stars++)
473         outFile << "***";
474     outFile << endl;
475     break;
476 }
477 case 48: {
478     for(int stars = 0; stars < count48; stars++)
479         outFile << "***";
480     outFile << endl;
481     break;
482 }
483 case 49: {
484     for(int stars = 0; stars < count49; stars++)
485         outFile << "***";
486     outFile << endl;
487     break;
488 }
489 case 50: {
490     for(int stars = 0; stars < count50; stars++)
491         outFile << "***";
492     outFile << endl;
493     break;
```

Ln 1864, Col 1 Spaces: 4 UTF-8 CRLF C++ 3 Spell

```
File Edit Selection View Go Run Terminal Help data_processing.cpp - 275 - Visual Studio Code
EXPLORER
lab2 > files > data_processing.cpp > ...
  X data_processing.cpp lab2\files
  frequency.txt lab2
  data.txt lab2
  275
  OUTLINE
  493
  494
  495
  496
  497
  498
  499
  500
  501
  502
  503
  504
  505
  506
  507
  508
  509
  510
  511
  512
  513
  514
  515
  516
  517
  518
  519
  520
  521
  522
  523
  524
  525
  526
  527
  528
  529
  530
  531
  532
  533
  534
  535
  536
  537
  538

break;
}
default: outFile << "could not find data" << endl;
}

// Frequency-finding logic.
// The first pass finds the highest number of occurrences.
int highestNumberOfOccurrences = count1;
highestNumberOfOccurrences = (count2 > highestNumberOfOccurrences) ? count2 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count3 > highestNumberOfOccurrences) ? count3 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count4 > highestNumberOfOccurrences) ? count4 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count5 > highestNumberOfOccurrences) ? count5 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count6 > highestNumberOfOccurrences) ? count6 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count7 > highestNumberOfOccurrences) ? count7 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count8 > highestNumberOfOccurrences) ? count8 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count9 > highestNumberOfOccurrences) ? count9 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count10 > highestNumberOfOccurrences) ? count10 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count11 > highestNumberOfOccurrences) ? count11 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count12 > highestNumberOfOccurrences) ? count12 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count13 > highestNumberOfOccurrences) ? count13 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count14 > highestNumberOfOccurrences) ? count14 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count15 > highestNumberOfOccurrences) ? count15 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count16 > highestNumberOfOccurrences) ? count16 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count17 > highestNumberOfOccurrences) ? count17 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count18 > highestNumberOfOccurrences) ? count18 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count19 > highestNumberOfOccurrences) ? count19 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count20 > highestNumberOfOccurrences) ? count20 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count21 > highestNumberOfOccurrences) ? count21 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count22 > highestNumberOfOccurrences) ? count22 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count23 > highestNumberOfOccurrences) ? count23 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count24 > highestNumberOfOccurrences) ? count24 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count25 > highestNumberOfOccurrences) ? count25 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count26 > highestNumberOfOccurrences) ? count26 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count27 > highestNumberOfOccurrences) ? count27 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count28 > highestNumberOfOccurrences) ? count28 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count29 > highestNumberOfOccurrences) ? count29 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count30 > highestNumberOfOccurrences) ? count30 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count31 > highestNumberOfOccurrences) ? count31 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count32 > highestNumberOfOccurrences) ? count32 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count33 > highestNumberOfOccurrences) ? count33 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count34 > highestNumberOfOccurrences) ? count34 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count35 > highestNumberOfOccurrences) ? count35 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count36 > highestNumberOfOccurrences) ? count36 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count37 > highestNumberOfOccurrences) ? count37 : highestNumberOfOccurrences;
highestNumberOfOccurrences = (count38 > highestNumberOfOccurrences) ? count38 : highestNumberOfOccurrences;

Ln 1864, Col 1 Spaces: 4 UTF-8 CRLF C++ 3 Spell Win32
```

```
538 highestNumberOfOccurrences = (count38 > highestNumberOfOccurrences) ? count38 : highestNumberOfOccurrences;
539 highestNumberOfOccurrences = (count39 > highestNumberOfOccurrences) ? count39 : highestNumberOfOccurrences;
540 highestNumberOfOccurrences = (count40 > highestNumberOfOccurrences) ? count40 : highestNumberOfOccurrences;
541 highestNumberOfOccurrences = (count41 > highestNumberOfOccurrences) ? count41 : highestNumberOfOccurrences;
542 highestNumberOfOccurrences = (count42 > highestNumberOfOccurrences) ? count42 : highestNumberOfOccurrences;
543 highestNumberOfOccurrences = (count43 > highestNumberOfOccurrences) ? count43 : highestNumberOfOccurrences;
544 highestNumberOfOccurrences = (count44 > highestNumberOfOccurrences) ? count44 : highestNumberOfOccurrences;
545 highestNumberOfOccurrences = (count45 > highestNumberOfOccurrences) ? count45 : highestNumberOfOccurrences;
546 highestNumberOfOccurrences = (count46 > highestNumberOfOccurrences) ? count46 : highestNumberOfOccurrences;
547 highestNumberOfOccurrences = (count47 > highestNumberOfOccurrences) ? count47 : highestNumberOfOccurrences;
548 highestNumberOfOccurrences = (count48 > highestNumberOfOccurrences) ? count48 : highestNumberOfOccurrences;
549 highestNumberOfOccurrences = (count49 > highestNumberOfOccurrences) ? count49 : highestNumberOfOccurrences;
550 highestNumberOfOccurrences = (count50 > highestNumberOfOccurrences) ? count50 : highestNumberOfOccurrences;
551
552 //cout << "Highest number of occurrences = " << highestNumberOfOccurrences << endl;
553
554 // The second pass finds how many numbers have this number.
555 int numberOfMaxOccurrences = 0;
556 if(count1 == highestNumberOfOccurrences)
557     ++numberOfMaxOccurrences;
558 if(count2 == highestNumberOfOccurrences)
559     ++numberOfMaxOccurrences;
560 if(count3 == highestNumberOfOccurrences)
561     ++numberOfMaxOccurrences;
562 if(count4 == highestNumberOfOccurrences)
563     ++numberOfMaxOccurrences;
564 if(count5 == highestNumberOfOccurrences)
565     ++numberOfMaxOccurrences;
566 if(count6 == highestNumberOfOccurrences)
567     ++numberOfMaxOccurrences;
568 if(count7 == highestNumberOfOccurrences)
569     ++numberOfMaxOccurrences;
570 if(count8 == highestNumberOfOccurrences)
571     ++numberOfMaxOccurrences;
572 if(count9 == highestNumberOfOccurrences)
573     ++numberOfMaxOccurrences;
574 if(count10 == highestNumberOfOccurrences)
575     ++numberOfMaxOccurrences;
576 if(count11 == highestNumberOfOccurrences)
577     ++numberOfMaxOccurrences;
578 if(count12 == highestNumberOfOccurrences)
579     ++numberOfMaxOccurrences;
580 if(count13 == highestNumberOfOccurrences)
581     ++numberOfMaxOccurrences;
582 if(count14 == highestNumberOfOccurrences)
583     ++numberOfMaxOccurrences;
```

FileEditSelectionViewGoRunTerminalHelpdata_processing.cpp - 275 - Visual Studio Code

EXPLORER

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files

frequency.txt lab2

data.txt lab2

> 275

> OUTLINE

data_processing.cpp

frequency.txt

data.txt

lab2 > files > data_processing.cpp > ...

583

584

585

586

587

588

589

590

591

592

593

594

595

596

597

598

599

600

601

602

603

604

605

606

607

608

609

610

611

612

613

614

615

616

617

618

619

620

621

622

623

624

625

626

627

628

if(count14 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count15 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count16 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count17 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count18 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count19 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count20 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count21 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count22 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count23 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count24 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count25 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count26 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count27 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count28 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count29 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count30 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count31 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count32 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count33 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count34 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count35 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count36 == highestNumberOfOccurrences)

++numberOfMaxOccurrences;

if(count37 == highestNumberOfOccurrences)

0 0 0 3

Ln 1864, Col 1 Spaces: 4 UTF-8

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORER

OPEN EDITORS

data_processing.cpp lab2\files

frequency.txt lab2

data.txt lab2

275

OUTLINE

lab2 > files > data_processing.cpp > ...

```
627         ++numberOfMaxOccurrences;
628         if(count37 == highestNumberOfOccurrences)
629             ++numberOfMaxOccurrences;
630         if(count38 == highestNumberOfOccurrences)
631             ++numberOfMaxOccurrences;
632         if(count39 == highestNumberOfOccurrences)
633             ++numberOfMaxOccurrences;
634         if(count40 == highestNumberOfOccurrences)
635             ++numberOfMaxOccurrences;
636         if(count41 == highestNumberOfOccurrences)
637             ++numberOfMaxOccurrences;
638         if(count42 == highestNumberOfOccurrences)
639             ++numberOfMaxOccurrences;
640         if(count43 == highestNumberOfOccurrences)
641             ++numberOfMaxOccurrences;
642         if(count44 == highestNumberOfOccurrences)
643             ++numberOfMaxOccurrences;
644         if(count45 == highestNumberOfOccurrences)
645             ++numberOfMaxOccurrences;
646         if(count46 == highestNumberOfOccurrences)
647             ++numberOfMaxOccurrences;
648         if(count47 == highestNumberOfOccurrences)
649             ++numberOfMaxOccurrences;
650         if(count48 == highestNumberOfOccurrences)
651             ++numberOfMaxOccurrences;
652         if(count49 == highestNumberOfOccurrences)
653             ++numberOfMaxOccurrences;
654         if(count50 == highestNumberOfOccurrences)
655             ++numberOfMaxOccurrences;
656
657         //cout << "Number of max occurrences = " << numberOfMaxOccurrences << endl;
658
659         bool alreadyPrinted1 = false,
660             alreadyPrinted2 = false,
661             alreadyPrinted3 = false,
662             alreadyPrinted4 = false,
663             alreadyPrinted5 = false,
664             alreadyPrinted6 = false,
665             alreadyPrinted7 = false,
666             alreadyPrinted8 = false,
667             alreadyPrinted9 = false,
668             alreadyPrinted10 = false,
669             alreadyPrinted11 = false,
670             alreadyPrinted12 = false,
671             alreadyPrinted13 = false,
672             alreadyPrinted14 = false,
```

Ln 1864, Col 1 Spaces: 4 UTF-8

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORER

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files

frequency.txt lab2

data.txt lab2

> 275

OUTLINE

672

673

674

675

676

677

678

679

680

681

682

683

684

685

686

687

688

689

690

691

692

693

694

695

696

697

698

699

700

701

702

703

704

705

706

707

708

709

710

711

712

713

714

715

716

717

alreadyPrinted14 = false,

alreadyPrinted15 = false,

alreadyPrinted16 = false,

alreadyPrinted17 = false,

alreadyPrinted18 = false,

alreadyPrinted19 = false,

alreadyPrinted20 = false,

alreadyPrinted21 = false,

alreadyPrinted22 = false,

alreadyPrinted23 = false,

alreadyPrinted24 = false,

alreadyPrinted25 = false,

alreadyPrinted26 = false,

alreadyPrinted27 = false,

alreadyPrinted28 = false,

alreadyPrinted29 = false,

alreadyPrinted30 = false,

alreadyPrinted31 = false,

alreadyPrinted32 = false,

alreadyPrinted33 = false,

alreadyPrinted34 = false,

alreadyPrinted35 = false,

alreadyPrinted36 = false,

alreadyPrinted37 = false,

alreadyPrinted38 = false,

alreadyPrinted39 = false,

alreadyPrinted40 = false,

alreadyPrinted41 = false,

alreadyPrinted42 = false,

alreadyPrinted43 = false,

alreadyPrinted44 = false,

alreadyPrinted45 = false,

alreadyPrinted46 = false,

alreadyPrinted47 = false,

alreadyPrinted48 = false,

alreadyPrinted49 = false,

alreadyPrinted50 = false;

// From here, it depends on how many numbers

// are going to be printed out.

// First, print the common case: at least one number

// will always be printed out.

if(count1 == highestNumberOfOccurrences){

if(!alreadyPrinted1)

{

alreadyPrinted1 = true;

0 0 0 3Ln 1864, Col 1Spaces: 4UTF-8

FileEditSelectionViewGoRunTerminalHelp

data_processing.cpp - 275 - Visual Studio Code

EXPLORER

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files

frequency.txt lab2

data.txt lab2

> 275

OUTLINE

717

718

719

720

721

722

723

724

725

726

727

728

729

730

731

732

733

734

735

736

737

738

739

740

741

742

743

744

745

746

747

748

749

750

751

752

753

754

755

756

757

758

759

760

761

762

```
        alreadyPrinted1 = true;
        outFile << "#1";
    }
}
else if(count2 == highestNumberOfOccurrences){
    if(!alreadyPrinted2)
    {
        alreadyPrinted2 = true;
        outFile << "#2";
    }
}
else if(count3 == highestNumberOfOccurrences){
    if(!alreadyPrinted3)
    {
        alreadyPrinted3 = true;
        outFile << "#3";
    }
}
else if(count4 == highestNumberOfOccurrences){
    if(!alreadyPrinted4)
    {
        alreadyPrinted4 = true;
        outFile << "#4";
    }
}
else if(count5 == highestNumberOfOccurrences){
    if(!alreadyPrinted5)
    {
        alreadyPrinted5 = true;
        outFile << "#5";
    }
}
else if(count6 == highestNumberOfOccurrences){
    if(!alreadyPrinted6)
    {
        alreadyPrinted6 = true;
        outFile << "#6";
    }
}
else if(count7 == highestNumberOfOccurrences){
    if(!alreadyPrinted7)
    {
        alreadyPrinted7 = true;
        outFile << "#7";
    }
}
```

0 0 0 3

Ln 1864, Col 1 Spaces: 4 UTF-8

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORER

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files

frequency.txt lab2

data.txt lab2

> 275

OUTLINE

762

763

764

765

766

767

768

769

770

771

772

773

774

775

776

777

778

779

780

781

782

783

784

785

786

787

788

789

790

791

792

793

794

795

796

797

798

799

800

801

802

803

804

805

806

807

}

else if(count8 == highestNumberOfOccurrences){

if(!alreadyPrinted8)

{

alreadyPrinted8 = true;

outFile << "#8";

}

}

else if(count9 == highestNumberOfOccurrences){

if(!alreadyPrinted9)

{

alreadyPrinted9 = true;

outFile << "#9";

}

}

else if(count10 == highestNumberOfOccurrences){

if(!alreadyPrinted10)

{

alreadyPrinted10 = true;

outFile << "#10";

}

}

else if(count11 == highestNumberOfOccurrences){

if(!alreadyPrinted11)

{

alreadyPrinted11 = true;

outFile << "#11";

}

}

else if(count12 == highestNumberOfOccurrences){

if(!alreadyPrinted12)

{

alreadyPrinted12 = true;

outFile << "#12";

}

}

else if(count13 == highestNumberOfOccurrences){

if(!alreadyPrinted13)

{

alreadyPrinted13 = true;

outFile << "#13";

}

}

else if(count14 == highestNumberOfOccurrences){

if(!alreadyPrinted14)

{

0 0 0 3Ln 1864, Col 1Spaces: 4UTF-8

FileEditSelectionViewGoRunTerminalHelp

data_processing.cpp - 275 - Visual Studio Code

EXPLORER

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files

frequency.txt lab2

data.txt lab2

> 275

OUTLINE

806

807

808

809

810

811

812

813

814

815

816

817

818

819

820

821

822

823

824

825

826

827

828

829

830

831

832

833

834

835

836

837

838

839

840

841

842

843

844

845

846

847

848

849

850

851

if(!alreadyPrinted14)

{

alreadyPrinted14 = true;

outFile << "#14";

}

}

else if(count15 == highestNumberOfOccurrences){

if(!alreadyPrinted15)

{

alreadyPrinted15 = true;

outFile << "#15";

}

}

else if(count16 == highestNumberOfOccurrences){

if(!alreadyPrinted16)

{

alreadyPrinted16 = true;

outFile << "#16";

}

}

else if(count17 == highestNumberOfOccurrences){

if(!alreadyPrinted17)

{

alreadyPrinted17 = true;

outFile << "#17";

}

}

else if(count18 == highestNumberOfOccurrences){

if(!alreadyPrinted18)

{

alreadyPrinted18 = true;

outFile << "#18";

}

}

else if(count19 == highestNumberOfOccurrences){

if(!alreadyPrinted19)

{

alreadyPrinted19 = true;

outFile << "#19";

}

}

else if(count20 == highestNumberOfOccurrences){

if(!alreadyPrinted20)

{

alreadyPrinted20 = true;

outFile << "#20";

}

}

0 0 0 3

Ln 1864, Col 1 Spaces: 4 UTF-8

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2\filesdata_processing.cpp Xfrequency.txt Xdata.txtlab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\filesfrequency.txt lab2data.txt lab2275OUTLINE

```
851         outFile << "#20";
852     }
853 }
854 else if(count21 == highestNumberOfOccurrences){
855     if(!alreadyPrinted21)
856     {
857         alreadyPrinted21 = true;
858         outFile << "#21";
859     }
860 }
861 else if(count22 == highestNumberOfOccurrences){
862     if(!alreadyPrinted22)
863     {
864         alreadyPrinted22 = true;
865         outFile << "#22";
866     }
867 }
868 else if(count23 == highestNumberOfOccurrences){
869     if(!alreadyPrinted23)
870     {
871         alreadyPrinted23 = true;
872         outFile << "#23";
873     }
874 }
875 else if(count24 == highestNumberOfOccurrences){
876     if(!alreadyPrinted24)
877     {
878         alreadyPrinted24 = true;
879         outFile << "#24";
880     }
881 }
882 else if(count25 == highestNumberOfOccurrences){
883     if(!alreadyPrinted25)
884     {
885         alreadyPrinted25 = true;
886         outFile << "#25";
887     }
888 }
889 else if(count26 == highestNumberOfOccurrences){
890     if(!alreadyPrinted26)
891     {
892         alreadyPrinted26 = true;
893         outFile << "#26";
894     }
895 }
896 else if(count27 == highestNumberOfOccurrences){
```

0 0 0 3Ln 1864, Col 1Spaces: 4UTF-8

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2\filesdata_processing.cpp Xfrequency.txtdata.txtOPEN EDITORSdata_processing.cpp lab2\filesfrequency.txt lab2data.txt lab2> 275OUTLINE

lab2 > files > data_processing.cpp > ...

```
896     else if(count27 == highestNumberOfOccurrences){
897         if(!alreadyPrinted27)
898         {
899             alreadyPrinted27 = true;
900             outFile << "#27";
901         }
902     }
903     else if(count28 == highestNumberOfOccurrences){
904         if(!alreadyPrinted28)
905         {
906             alreadyPrinted28 = true;
907             outFile << "#28";
908         }
909     }
910     else if(count29 == highestNumberOfOccurrences){
911         if(!alreadyPrinted29)
912         {
913             alreadyPrinted29 = true;
914             outFile << "#29";
915         }
916     }
917     else if(count30 == highestNumberOfOccurrences){
918         if(!alreadyPrinted30)
919         {
920             alreadyPrinted30 = true;
921             outFile << "#30";
922         }
923     }
924     else if(count31 == highestNumberOfOccurrences){
925         if(!alreadyPrinted31)
926         {
927             alreadyPrinted31 = true;
928             outFile << "#31";
929         }
930     }
931     else if(count32 == highestNumberOfOccurrences){
932         if(!alreadyPrinted32)
933         {
934             alreadyPrinted32 = true;
935             outFile << "#32";
936         }
937     }
938     else if(count33 == highestNumberOfOccurrences){
939         if(!alreadyPrinted33)
940         {
941             alreadyPrinted33 = true;
```

0 0 0 3Ln 1864, Col 1Spaces: 4UTF-8

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2\filesdata_processing.cpp Xfrequency.txtdata.txtlab2 > 275OUTLINE

lab2 > files > data_processing.cpp > ...

```
941         alreadyPrinted33 = true;
942         outFile << "#33";
943     }
944 }
945 else if(count34 == highestNumberOfOccurrences){
946     if(!alreadyPrinted34)
947     {
948         alreadyPrinted34 = true;
949         outFile << "#34";
950     }
951 }
952 else if(count35 == highestNumberOfOccurrences){
953     if(!alreadyPrinted35)
954     {
955         alreadyPrinted35 = true;
956         outFile << "#35";
957     }
958 }
959 else if(count36 == highestNumberOfOccurrences){
960     if(!alreadyPrinted36)
961     {
962         alreadyPrinted36 = true;
963         outFile << "#36";
964     }
965 }
966 else if(count37 == highestNumberOfOccurrences){
967     if(!alreadyPrinted37)
968     {
969         alreadyPrinted37 = true;
970         outFile << "#37";
971     }
972 }
973 else if(count38 == highestNumberOfOccurrences){
974     if(!alreadyPrinted38)
975     {
976         alreadyPrinted38 = true;
977         outFile << "#38";
978     }
979 }
980 else if(count39 == highestNumberOfOccurrences){
981     if(!alreadyPrinted39)
982     {
983         alreadyPrinted39 = true;
984         outFile << "#39";
985     }
986 }
```

0 0 0 3Ln 1864, Col 1Spaces: 4UTF-8

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2 > files > data_processing.cpp > ...
data_processing.cpp lab2\files
frequency.txt lab2
data.txt lab2
275
OUTLINE

lab2 > files > data_processing.cpp > ...
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000
1001
1002
1003
1004
1005
1006
1007
1008
1009
1010
1011
1012
1013
1014
1015
1016
1017
1018
1019
1020
1021
1022
1023
1024
1025
1026
1027
1028
1029
1030

```
    }  
    }  
    else if(count40 == highestNumberOfOccurrences){  
        if(!alreadyPrinted40)  
        {  
            alreadyPrinted40 = true;  
            outFile << "#40";  
        }  
    }  
    else if(count41 == highestNumberOfOccurrences){  
        if(!alreadyPrinted41)  
        {  
            alreadyPrinted41 = true;  
            outFile << "#41";  
        }  
    }  
    else if(count42 == highestNumberOfOccurrences){  
        if(!alreadyPrinted42)  
        {  
            alreadyPrinted42 = true;  
            outFile << "#42";  
        }  
    }  
    else if(count43 == highestNumberOfOccurrences){  
        if(!alreadyPrinted43)  
        {  
            alreadyPrinted43 = true;  
            outFile << "#43";  
        }  
    }  
    else if(count44 == highestNumberOfOccurrences){  
        if(!alreadyPrinted44)  
        {  
            alreadyPrinted44 = true;  
            outFile << "#44";  
        }  
    }  
    else if(count45 == highestNumberOfOccurrences){  
        if(!alreadyPrinted45)  
        {  
            alreadyPrinted45 = true;  
            outFile << "#45";  
        }  
    }  
    else if(count46 == highestNumberOfOccurrences){  
        if(!alreadyPrinted46)
```

0 0 0 3Ln 1864, Col 1Spaces: 4UTF-8

data_processing.cpp - 275 - Visual Studio Code

FileEditSelectionViewGoRunTerminalHelp

data_processing.cpp X frequency.txt data.txt

lab2 > files > data_processing.cpp > ...

EXPLORER

OPEN EDITORS

data_processing.cpp lab2\files
frequency.txt lab2
data.txt lab2

> 275

OUTLINE

1030

1031

1032

1033

1034

1035

1036

1037

1038

1039

1040

1041

1042

1043

1044

1045

1046

1047

1048

1049

1050

1051

1052

1053

1054

1055

1056

1057

1058

1059

1060

1061

1062

1063

1064

1065

1066

1067

1068

1069

1070

1071

1072

1073

1074

1075

```
        if(!alreadyPrinted46)
        {
            alreadyPrinted46 = true;
            outFile << "#46";
        }
    }
    else if(count47 == highestNumberOfOccurrences){
        if(!alreadyPrinted47)
        {
            alreadyPrinted47 = true;
            outFile << "#47";
        }
    }
    else if(count48 == highestNumberOfOccurrences){
        if(!alreadyPrinted48)
        {
            alreadyPrinted48 = true;
            outFile << "#48";
        }
    }
    else if(count49 == highestNumberOfOccurrences){
        if(!alreadyPrinted49)
        {
            alreadyPrinted49 = true;
            outFile << "#49";
        }
    }
    else if(count50 == highestNumberOfOccurrences){
        if(!alreadyPrinted50)
        {
            alreadyPrinted50 = true;
            outFile << "#50";
        }
    }
    else{
        outFile << "garbage indication text" << endl;
    }

    if(numberOfMaxOccurrences == 1)
    {
        // Format: #x occurs the most.
        outFile << " occurs the most." << endl;
    }
    else if(numberOfMaxOccurrences == 2)
    {
        // Format: #x and #y occur the most
```

0 0 0 3Ln 1864, Col 1Spaces: 4UTF-8

FileEditSelectionViewGoRunTerminalHelp

data_processing.cpp - 275 - Visual Studio Code

EXPLORER

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files

frequency.txt lab2

data.txt lab2

> 275

> OUTLINE

lab2 > files > data_processing.cpp > ...

1075

1076

1077

1078

1079

1080

1081

1082

1083

1084

1085

1086

1087

1088

1089

1090

1091

1092

1093

1094

1095

1096

1097

1098

1099

1100

1101

1102

1103

1104

1105

1106

1107

1108

1109

1110

1111

1112

1113

1114

1115

1116

1117

1118

1119

1120

// Format: #x and #y occur the most

outFile << " and ";

if(count1 == highestNumberOfOccurrences)

if(!alreadyPrinted1)

{

alreadyPrinted1 = true;

outFile << "#1";

}

if(count2 == highestNumberOfOccurrences)

if(!alreadyPrinted2)

{

alreadyPrinted2 = true;

outFile << "#2";

}

if(count3 == highestNumberOfOccurrences)

if(!alreadyPrinted3)

{

alreadyPrinted3 = true;

outFile << "#3";

}

if(count4 == highestNumberOfOccurrences)

if(!alreadyPrinted4)

{

alreadyPrinted4 = true;

outFile << "#4";

}

if(count5 == highestNumberOfOccurrences)

if(!alreadyPrinted5)

{

alreadyPrinted5 = true;

outFile << "#5";

}

if(count6 == highestNumberOfOccurrences)

if(!alreadyPrinted6)

{

alreadyPrinted6 = true;

outFile << "#6";

}

if(count7 == highestNumberOfOccurrences)

if(!alreadyPrinted7)

0 0 0 3

Ln 1864, Col 1 Spaces: 4 UTF-8

FileEditSelectionViewGoRunTerminalHelpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2 > files > data_processing.cpp > ...
data_processing.cpp lab2\files
frequency.txt lab2
data.txt lab2
275
OUTLINE

lab2 > files > data_processing.cpp > ...
1119
1120
1121
1122
1123
1124
1125
1126
1127
1128
1129
1130
1131
1132
1133
1134
1135
1136
1137
1138
1139
1140
1141
1142
1143
1144
1145
1146
1147
1148
1149
1150
1151
1152
1153
1154
1155
1156
1157
1158
1159
1160
1161
1162
1163
1164

```
if(count7 == highestNumberOfOccurrences)
    if(!alreadyPrinted7)
    {
        alreadyPrinted7 = true;
        outFile << "#7";
    }

if(count8 == highestNumberOfOccurrences)
    if(!alreadyPrinted8)
    {
        alreadyPrinted8 = true;
        outFile << "#8";
    }

if(count9 == highestNumberOfOccurrences)
    if(!alreadyPrinted9)
    {
        alreadyPrinted9 = true;
        outFile << "#9";
    }

if(count10 == highestNumberOfOccurrences)
    if(!alreadyPrinted10)
    {
        alreadyPrinted10 = true;
        outFile << "#10";
    }

if(count11 == highestNumberOfOccurrences)
    if(!alreadyPrinted11)
    {
        alreadyPrinted11 = true;
        outFile << "#11";
    }

if(count12 == highestNumberOfOccurrences)
    if(!alreadyPrinted12)
    {
        alreadyPrinted12 = true;
        outFile << "#12";
    }

if(count13 == highestNumberOfOccurrences)
    if(!alreadyPrinted13)
    {
        alreadyPrinted13 = true;
```

0 0 0 3Ln 1864, Col 1Spaces: 4UTF-8

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2 > files > data_processing.cpp X frequency.txt data.txt

OPEN EDITORSdata_processing.cpp lab2\filesfrequency.txt lab2data.txt lab2

275

OUTLINE

lab2 > files > data_processing.cpp > ...
1164 alreadyPrinted13 = true;
1165 outFile << "#13";
1166 }
1167
1168 if(count14 == highestNumberOfOccurrences)
1169 if(!alreadyPrinted14)
1170 {
1171 alreadyPrinted14 = true;
1172 outFile << "#14";
1173 }
1174
1175 if(count15 == highestNumberOfOccurrences)
1176 if(!alreadyPrinted15)
1177 {
1178 alreadyPrinted15 = true;
1179 outFile << "#15";
1180 }
1181
1182 if(count16 == highestNumberOfOccurrences)
1183 if(!alreadyPrinted16)
1184 {
1185 alreadyPrinted16 = true;
1186 outFile << "#16";
1187 }
1188
1189 if(count17 == highestNumberOfOccurrences)
1190 if(!alreadyPrinted17)
1191 {
1192 alreadyPrinted17 = true;
1193 outFile << "#17";
1194 }
1195
1196 if(count18 == highestNumberOfOccurrences)
1197 if(!alreadyPrinted18)
1198 {
1199 alreadyPrinted18 = true;
1200 outFile << "#18";
1201 }
1202
1203 if(count19 == highestNumberOfOccurrences)
1204 if(!alreadyPrinted19)
1205 {
1206 alreadyPrinted19 = true;
1207 outFile << "#19";
1208 }
1209

0 0 0 3Ln 1864, Col 1Spaces: 4UTF-8

FileEditSelectionViewGoRunTerminalHelp

data_processing.cpp - 275 - Visual Studio Code

EXPLORER

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files

frequency.txt lab2

data.txt lab2

> 275

> OUTLINE

1209

1210

1211

1212

1213

1214

1215

1216

1217

1218

1219

1220

1221

1222

1223

1224

1225

1226

1227

1228

1229

1230

1231

1232

1233

1234

1235

1236

1237

1238

1239

1240

1241

1242

1243

1244

1245

1246

1247

1248

1249

1250

1251

1252

1253

1254

if(count20 == highestNumberOfOccurrences)

if(!alreadyPrinted20)

{

alreadyPrinted20 = true;

outFile << "#20";

}

if(count21 == highestNumberOfOccurrences)

if(!alreadyPrinted21)

{

alreadyPrinted21 = true;

outFile << "#21";

}

if(count22 == highestNumberOfOccurrences)

if(!alreadyPrinted22)

{

alreadyPrinted22 = true;

outFile << "#22";

}

if(count23 == highestNumberOfOccurrences)

if(!alreadyPrinted23)

{

alreadyPrinted23 = true;

outFile << "#23";

}

if(count24 == highestNumberOfOccurrences)

if(!alreadyPrinted24)

{

alreadyPrinted24 = true;

outFile << "#24";

}

if(count25 == highestNumberOfOccurrences)

if(!alreadyPrinted25)

{

alreadyPrinted25 = true;

outFile << "#25";

}

if(count26 == highestNumberOfOccurrences)

if(!alreadyPrinted26)

{

0 0 0 3

Ln 1864, Col 1 Spaces: 4 UTF-8

FileEditSelectionViewGoRunTerminalHelpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2 > files > data_processing.cpp > ...
data_processing.cpp lab2\files
frequency.txt lab2
data.txt lab2
> 275
OUTLINE

lab2 > files > data_processing.cpp > ...
1254
1255
1256
1257
1258
1259
1260
1261
1262
1263
1264
1265
1266
1267
1268
1269
1270
1271
1272
1273
1274
1275
1276
1277
1278
1279
1280
1281
1282
1283
1284
1285
1286
1287
1288
1289
1290
1291
1292
1293
1294
1295
1296
1297
1298
1299

```
1254 {  
1255     alreadyPrinted26 = true;  
1256     outFile << "#26";  
1257 }  
1258  
1259 if(count27 == highestNumberOfOccurrences)  
1260     if(!alreadyPrinted27)  
1261     {  
1262         alreadyPrinted27 = true;  
1263         outFile << "#27";  
1264     }  
1265  
1266 if(count28 == highestNumberOfOccurrences)  
1267     if(!alreadyPrinted28)  
1268     {  
1269         alreadyPrinted28 = true;  
1270         outFile << "#28";  
1271     }  
1272  
1273 if(count29 == highestNumberOfOccurrences)  
1274     if(!alreadyPrinted29)  
1275     {  
1276         alreadyPrinted29 = true;  
1277         outFile << "#29";  
1278     }  
1279  
1280 if(count30 == highestNumberOfOccurrences)  
1281     if(!alreadyPrinted30)  
1282     {  
1283         alreadyPrinted30 = true;  
1284         outFile << "#30";  
1285     }  
1286  
1287 if(count31 == highestNumberOfOccurrences)  
1288     if(!alreadyPrinted31)  
1289     {  
1290         alreadyPrinted31 = true;  
1291         outFile << "#31";  
1292     }  
1293  
1294 if(count32 == highestNumberOfOccurrences)  
1295     if(!alreadyPrinted32)  
1296     {  
1297         alreadyPrinted32 = true;  
1298         outFile << "#32";  
1299     }
```

0 0 0 3Ln 1864, Col 1Spaces: 4UTF-8

FileEditSelectionViewGoRunTerminalHelpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2 > files > data_processing.cpp > ...
data_processing.cpp lab2\files
frequency.txt lab2
data.txt lab2
275
OUTLINE

lab2 > files > data_processing.cpp > ...
1298
1299
1300
1301
1302
1303
1304
1305
1306
1307
1308
1309
1310
1311
1312
1313
1314
1315
1316
1317
1318
1319
1320
1321
1322
1323
1324
1325
1326
1327
1328
1329
1330
1331
1332
1333
1334
1335
1336
1337
1338
1339
1340
1341
1342
1343

```
        outFile << "#32";  
    }  
  
    if(count33 == highestNumberOfOccurrences)  
        if(!alreadyPrinted33)  
        {  
            alreadyPrinted33 = true;  
            outFile << "#33";  
        }  
  
    if(count34 == highestNumberOfOccurrences)  
        if(!alreadyPrinted34)  
        {  
            alreadyPrinted34 = true;  
            outFile << "#34";  
        }  
  
    if(count35 == highestNumberOfOccurrences)  
        if(!alreadyPrinted35)  
        {  
            alreadyPrinted35 = true;  
            outFile << "#35";  
        }  
  
    if(count36 == highestNumberOfOccurrences)  
        if(!alreadyPrinted36)  
        {  
            alreadyPrinted36 = true;  
            outFile << "#36";  
        }  
  
    if(count37 == highestNumberOfOccurrences)  
        if(!alreadyPrinted37)  
        {  
            alreadyPrinted37 = true;  
            outFile << "#37";  
        }  
  
    if(count38 == highestNumberOfOccurrences)  
        if(!alreadyPrinted38)  
        {  
            alreadyPrinted38 = true;  
            outFile << "#38";  
        }  
  
    if(count39 == highestNumberOfOccurrences)
```

0 0 0 3Ln 1864, Col 1Spaces: 4UTF-8

FileEditSelectionViewGoRunTerminalHelp

data_processing.cpp - 275 - Visual Studio Code

EXPLORER

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files

frequency.txt lab2

data.txt lab2

> 275

OUTLINE

1343

1344

1345

1346

1347

1348

1349

1350

1351

1352

1353

1354

1355

1356

1357

1358

1359

1360

1361

1362

1363

1364

1365

1366

1367

1368

1369

1370

1371

1372

1373

1374

1375

1376

1377

1378

1379

1380

1381

1382

1383

1384

1385

1386

1387

1388

if(count39 == highestNumberOfOccurrences)

if(!alreadyPrinted39)

{

alreadyPrinted39 = true;

outFile << "#39";

}

if(count40 == highestNumberOfOccurrences)

if(!alreadyPrinted40)

{

alreadyPrinted40 = true;

outFile << "#40";

}

if(count41 == highestNumberOfOccurrences)

if(!alreadyPrinted41)

{

alreadyPrinted41 = true;

outFile << "#41";

}

if(count42 == highestNumberOfOccurrences)

if(!alreadyPrinted42)

{

alreadyPrinted42 = true;

outFile << "#42";

}

if(count43 == highestNumberOfOccurrences)

if(!alreadyPrinted43)

{

alreadyPrinted43 = true;

outFile << "#43";

}

if(count44 == highestNumberOfOccurrences)

if(!alreadyPrinted44)

{

alreadyPrinted44 = true;

outFile << "#44";

}

if(count45 == highestNumberOfOccurrences)

if(!alreadyPrinted45)

{

alreadyPrinted45 = true;

}

0 0 0 3

Ln 1864, Col 1 Spaces: 4 UTF-8

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2\filesdata_processing.cpp Xfrequency.txtdata.txtlab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\filesfrequency.txt lab2data.txt lab2275OUTLINE

1388alreadyPrinted45 = true;1389outFile << "#45";1390}13911392if(count46 == highestNumberOfOccurrences)1393if(!alreadyPrinted46)1394{1395alreadyPrinted46 = true;1396outFile << "#46";1397}13981399if(count47 == highestNumberOfOccurrences)1400if(!alreadyPrinted47)1401{1402alreadyPrinted47 = true;1403outFile << "#47";1404}14051406if(count48 == highestNumberOfOccurrences)1407if(!alreadyPrinted48)1408{1409alreadyPrinted48 = true;1410outFile << "#48";1411}14121413if(count49 == highestNumberOfOccurrences)1414if(!alreadyPrinted49)1415{1416alreadyPrinted49 = true;1417outFile << "#49";1418}14191420if(count50 == highestNumberOfOccurrences)1421if(!alreadyPrinted50)1422{1423alreadyPrinted50 = true;1424outFile << "#50";1425}14261427outFile << " occur the most." << endl;1428}1429else // if numberOfMaxOccurrences >= 31430{1431// Format: #x, #y, and #z occur the most.1432for(int i = 0; i < numberOfMaxOccurrences - 1; i++)1433// -1 because the first one is already printed.

0 0 0 3Ln 1864, Col 1Spaces: 4UTF-8

FileEditSelectionViewGoRunTerminalHelpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2 > files > data_processing.cpp X frequency.txt data.txt

OPEN EDITORSdata_processing.cpp lab2\filesfrequency.txt lab2data.txt lab2

275

OUTLINE

lab2 > files > data_processing.cpp > ...

1433143414351436143714381439144014411442144314441445144614471448144914501451145214531454145514561457145814591460146114621463146414651466146714681469147014711472147314741475147614771478

```
1432 // (count1 == 0, 1 < numberOfMaxOccurrences - 1, 111)
1433 // -1 because the first one is already printed.
1434 {
1435     outFile << ", ";
1436
1437     // The last iteration needs "and"
1438     if(i == numberOfMaxOccurrences - 2)
1439         outFile << "and ";
1440
1441     if(count1 == highestNumberOfOccurrences)
1442         if(!alreadyPrinted1)
1443         {
1444             alreadyPrinted1 = true;
1445             outFile << "#1";
1446             continue;
1447         }
1448
1449     if(count2 == highestNumberOfOccurrences)
1450         if(!alreadyPrinted2)
1451         {
1452             alreadyPrinted2 = true;
1453             outFile << "#2";
1454             continue;
1455         }
1456
1457     if(count3 == highestNumberOfOccurrences)
1458         if(!alreadyPrinted3)
1459         {
1460             alreadyPrinted3 = true;
1461             outFile << "#3";
1462             continue;
1463         }
1464
1465     if(count4 == highestNumberOfOccurrences)
1466         if(!alreadyPrinted4)
1467         {
1468             alreadyPrinted4 = true;
1469             outFile << "#4";
1470             continue;
1471         }
1472
1473     if(count5 == highestNumberOfOccurrences)
1474         if(!alreadyPrinted5)
1475         {
1476             alreadyPrinted5 = true;
1477             outFile << "#5";
1478             continue;
1479         }
```

0 0 0 3

Ln 1864, Col 1Spaces: 4UTF-8

FileEditSelectionViewGoRunTerminalHelp

data_processing.cpp - 275 - Visual Studio Code

EXPLORER

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files

frequency.txt lab2

data.txt lab2

> 275

OUTLINE

1477

1478

1479

1480

1481

1482

1483

1484

1485

1486

1487

1488

1489

1490

1491

1492

1493

1494

1495

1496

1497

1498

1499

1500

1501

1502

1503

1504

1505

1506

1507

1508

1509

1510

1511

1512

1513

1514

1515

1516

1517

1518

1519

1520

1521

1522

outFile << "#5";

continue;

}

if(count6 == highestNumberOfOccurrences)

if(!alreadyPrinted6)

{

alreadyPrinted6 = true;

outFile << "#6";

continue;

}

if(count7 == highestNumberOfOccurrences)

if(!alreadyPrinted7)

{

alreadyPrinted7 = true;

outFile << "#7";

continue;

}

if(count8 == highestNumberOfOccurrences)

if(!alreadyPrinted8)

{

alreadyPrinted8 = true;

outFile << "#8";

continue;

}

if(count9 == highestNumberOfOccurrences)

if(!alreadyPrinted9)

{

alreadyPrinted9 = true;

outFile << "#9";

continue;

}

if(count10 == highestNumberOfOccurrences)

if(!alreadyPrinted10)

{

alreadyPrinted10 = true;

outFile << "#10";

continue;

}

if(count11 == highestNumberOfOccurrences)

if(!alreadyPrinted11)

0 0 0 3

Ln 1864, Col 1 Spaces: 4 UTF-8

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2\filesdata_processing.cpp Xfrequency.txtdata.txtOPEN EDITORSdata_processing.cpp lab2\filesfrequency.txt lab2data.txt lab2> 275OUTLINE

lab2 > files > data_processing.cpp > ...1522152315241525152615271528152915301531153215331534153515361537153815391540154115421543154415451546154715481549155015511552155315541555155615571558155915601561156215631564156515661567

if(!alreadyPrinted11){alreadyPrinted11 = true;outFile << "#11";continue;}if(count12 == highestNumberOfOccurrences)if(!alreadyPrinted12){alreadyPrinted12 = true;outFile << "#12";continue;}if(count13 == highestNumberOfOccurrences)if(!alreadyPrinted13){alreadyPrinted13 = true;outFile << "#13";continue;}if(count14 == highestNumberOfOccurrences)if(!alreadyPrinted14){alreadyPrinted14 = true;outFile << "#14";continue;}if(count15 == highestNumberOfOccurrences)if(!alreadyPrinted15){alreadyPrinted15 = true;outFile << "#15";continue;}if(count16 == highestNumberOfOccurrences)if(!alreadyPrinted16){alreadyPrinted16 = true;outFile << "#16";continue;}}

0 0 0 3Ln 1864, Col 1Spaces: 4UTF-8

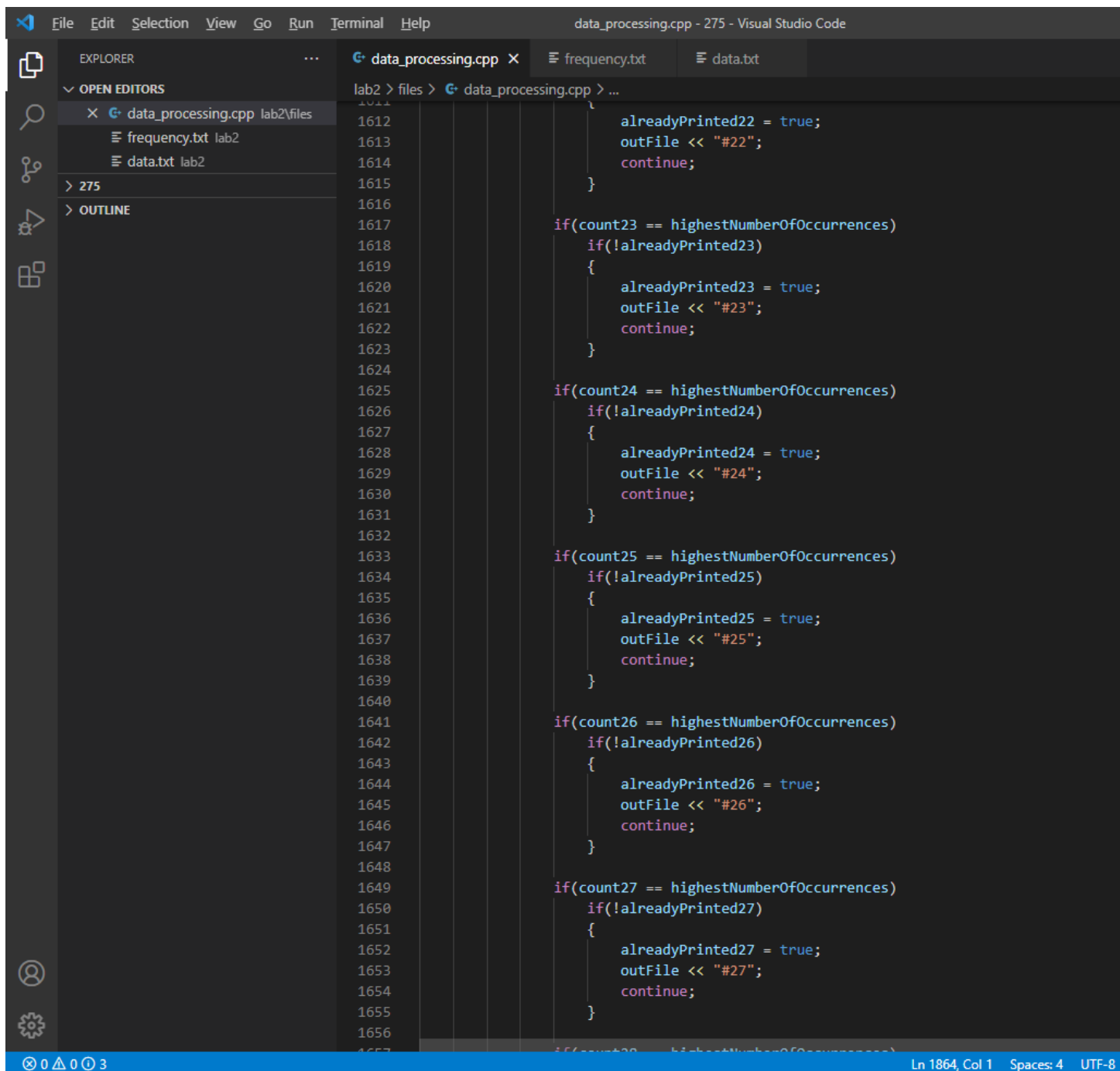
File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2 > files > data_processing.cpp > ...
data_processing.cpp lab2\files
frequency.txt lab2
data.txt lab2
> 275
> OUTLINE

lab2 > files > data_processing.cpp > ...
1567
1568
1569
1570
1571
1572
1573
1574
1575
1576
1577
1578
1579
1580
1581
1582
1583
1584
1585
1586
1587
1588
1589
1590
1591
1592
1593
1594
1595
1596
1597
1598
1599
1600
1601
1602
1603
1604
1605
1606
1607
1608
1609
1610
1611
1612

```
    }  
  
    if(count17 == highestNumberOfOccurrences)  
        if(!alreadyPrinted17)  
        {  
            alreadyPrinted17 = true;  
            outFile << "#17";  
            continue;  
        }  
  
    if(count18 == highestNumberOfOccurrences)  
        if(!alreadyPrinted18)  
        {  
            alreadyPrinted18 = true;  
            outFile << "#18";  
            continue;  
        }  
  
    if(count19 == highestNumberOfOccurrences)  
        if(!alreadyPrinted19)  
        {  
            alreadyPrinted19 = true;  
            outFile << "#19";  
            continue;  
        }  
  
    if(count20 == highestNumberOfOccurrences)  
        if(!alreadyPrinted20)  
        {  
            alreadyPrinted20 = true;  
            outFile << "#20";  
            continue;  
        }  
  
    if(count21 == highestNumberOfOccurrences)  
        if(!alreadyPrinted21)  
        {  
            alreadyPrinted21 = true;  
            outFile << "#21";  
            continue;  
        }  
  
    if(count22 == highestNumberOfOccurrences)  
        if(!alreadyPrinted22)  
        {  
            alreadyPrinted22 = true;
```

0 0 0 3Ln 1864, Col 1Spaces: 4UTF-8



FileEditSelectionViewGoRunTerminalHelp

data_processing.cpp - 275 - Visual Studio Code

EXPLORER

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files

frequency.txt lab2

data.txt lab2

> 275

OUTLINE

1656

1657

1658

1659

1660

1661

1662

1663

1664

1665

1666

1667

1668

1669

1670

1671

1672

1673

1674

1675

1676

1677

1678

1679

1680

1681

1682

1683

1684

1685

1686

1687

1688

1689

1690

1691

1692

1693

1694

1695

1696

1697

1698

1699

1700

1701

if(count28 == highestNumberOfOccurrences)

if(!alreadyPrinted28)

{

alreadyPrinted28 = true;

outFile << "#28";

continue;

}

if(count29 == highestNumberOfOccurrences)

if(!alreadyPrinted29)

{

alreadyPrinted29 = true;

outFile << "#29";

continue;

}

if(count30 == highestNumberOfOccurrences)

if(!alreadyPrinted30)

{

alreadyPrinted30 = true;

outFile << "#30";

continue;

}

if(count31 == highestNumberOfOccurrences)

if(!alreadyPrinted31)

{

alreadyPrinted31 = true;

outFile << "#31";

continue;

}

if(count32 == highestNumberOfOccurrences)

if(!alreadyPrinted32)

{

alreadyPrinted32 = true;

outFile << "#32";

continue;

}

if(count33 == highestNumberOfOccurrences)

if(!alreadyPrinted33)

{

alreadyPrinted33 = true;

outFile << "#33";

}

0 0 0 3

Ln 1864, Col 1 Spaces: 4 UTF-8

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2 > files > data_processing.cpp > ...
data_processing.cpp lab2\files
frequency.txt lab2
data.txt lab2
> 275
> OUTLINE

lab2 > files > data_processing.cpp > ...
1701
1702
1703
1704
1705
1706
1707
1708
1709
1710
1711
1712
1713
1714
1715
1716
1717
1718
1719
1720
1721
1722
1723
1724
1725
1726
1727
1728
1729
1730
1731
1732
1733
1734
1735
1736
1737
1738
1739
1740
1741
1742
1743
1744
1745
1746

```
        outFile << "#33";
        continue;
    }

    if(count34 == highestNumberOfOccurrences)
        if(!alreadyPrinted34)
        {
            alreadyPrinted34 = true;
            outFile << "#34";
            continue;
        }

    if(count35 == highestNumberOfOccurrences)
        if(!alreadyPrinted35)
        {
            alreadyPrinted35 = true;
            outFile << "#35";
            continue;
        }

    if(count36 == highestNumberOfOccurrences)
        if(!alreadyPrinted36)
        {
            alreadyPrinted36 = true;
            outFile << "#36";
            continue;
        }

    if(count37 == highestNumberOfOccurrences)
        if(!alreadyPrinted37)
        {
            alreadyPrinted37 = true;
            outFile << "#37";
            continue;
        }

    if(count38 == highestNumberOfOccurrences)
        if(!alreadyPrinted38)
        {
            alreadyPrinted38 = true;
            outFile << "#38";
            continue;
        }

    if(count39 == highestNumberOfOccurrences)
        if(!alreadyPrinted39)
```

0 0 0 3Ln 1864, Col 1Spaces: 4UTF-8

FileEditSelectionViewGoRunTerminalHelp

data_processing.cpp - 275 - Visual Studio Code

EXPLORER

lab2 > files > data_processing.cpp > ...

data_processing.cpp lab2\files

frequency.txt lab2

data.txt lab2

> 275

OUTLINE

1746

1747

1748

1749

1750

1751

1752

1753

1754

1755

1756

1757

1758

1759

1760

1761

1762

1763

1764

1765

1766

1767

1768

1769

1770

1771

1772

1773

1774

1775

1776

1777

1778

1779

1780

1781

1782

1783

1784

1785

1786

1787

1788

1789

1790

1791

```
if(!alreadyPrinted39)
{
    alreadyPrinted39 = true;
    outFile << "#39";
    continue;
}

if(count40 == highestNumberOfOccurrences)
if(!alreadyPrinted40)
{
    alreadyPrinted40 = true;
    outFile << "#40";
    continue;
}

if(count41 == highestNumberOfOccurrences)
if(!alreadyPrinted41)
{
    alreadyPrinted41 = true;
    outFile << "#41";
    continue;
}

if(count42 == highestNumberOfOccurrences)
if(!alreadyPrinted42)
{
    alreadyPrinted42 = true;
    outFile << "#42";
    continue;
}

if(count43 == highestNumberOfOccurrences)
if(!alreadyPrinted43)
{
    alreadyPrinted43 = true;
    outFile << "#43";
    continue;
}

if(count44 == highestNumberOfOccurrences)
if(!alreadyPrinted44)
{
    alreadyPrinted44 = true;
    outFile << "#44";
    continue;
}
```

0 0 0 3

Ln 1864, Col 1 Spaces: 4 UTF-8

FileEditSelectionViewGoRunTerminalHelpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2 > files > data_processing.cpp > ...
data_processing.cpp lab2\files
frequency.txt lab2
data.txt lab2
275
OUTLINE

lab2 > files > data_processing.cpp > ...
1790
1791
1792
1793
1794
1795
1796
1797
1798
1799
1800
1801
1802
1803
1804
1805
1806
1807
1808
1809
1810
1811
1812
1813
1814
1815
1816
1817
1818
1819
1820
1821
1822
1823
1824
1825
1826
1827
1828
1829
1830
1831
1832
1833
1834
1835
1836

```
continue;  
}  
  
if(count45 == highestNumberOfOccurrences)  
    if(!alreadyPrinted45)  
    {  
        alreadyPrinted45 = true;  
        outFile << "#45";  
        continue;  
    }  
  
if(count46 == highestNumberOfOccurrences)  
    if(!alreadyPrinted46)  
    {  
        alreadyPrinted46 = true;  
        outFile << "#46";  
        continue;  
    }  
  
if(count47 == highestNumberOfOccurrences)  
    if(!alreadyPrinted47)  
    {  
        alreadyPrinted47 = true;  
        outFile << "#47";  
        continue;  
    }  
  
if(count48 == highestNumberOfOccurrences)  
    if(!alreadyPrinted48)  
    {  
        alreadyPrinted48 = true;  
        outFile << "#48";  
        continue;  
    }  
  
if(count49 == highestNumberOfOccurrences)  
    if(!alreadyPrinted49)  
    {  
        alreadyPrinted49 = true;  
        outFile << "#49";  
        continue;  
    }  
  
if(count50 == highestNumberOfOccurrences)  
    if(!alreadyPrinted50)  
    {
```

0 0 0 3Ln 1864, Col 1Spaces: 4UTF-8

File Edit Selection View Go Run Terminal Helpdata_processing.cpp - 275 - Visual Studio Code

EXPLORERlab2 > filesdata_processing.cpp lab2\filesfrequency.txt lab2data.txt lab2275OUTLINE

lab2 > files > data_processing.cpp > ...
1835
1836
1837
1838
1839
1840
1841
1842
1843
1844
1845
1846
1847
1848
1849
1850
1851
1852
1853
1854
1855
1856
1857
1858
1859
1860
1861
1862
1863
1864
1865

```
1835  
1836  
1837  
1838  
1839  
1840  
1841  
1842  
1843  
1844  
1845  
1846  
1847  
1848  
1849  
1850  
1851  
1852  
1853  
1854  
1855  
1856  
1857  
1858  
1859  
1860  
1861  
1862  
1863  
1864  
1865
```

Ln 1864, Col 1 Spaces: 4 UTF-8 CRLF C++ 3 Spell W