

Chapter 20: Programming

20.17 Methods

```
Run | Debug
27 public static void main(String[] args)
28 {
29
30     String dictionary = "onlineDictionary.txt";
31     String outputName = "output.csv";
32
33     String[] words = readFile(dictionary);
34     int tableSize = words.length * 2;
35
36     System.out.printf(format, "Read %s | Contains %d lines | Table will be %d rows\n", dictionary, words.length, tableSize);
37
38     int[] table = new int[tableSize];
39     for (int i = 0; i < tableSize; i++) table[i] = 0;
40
41     for (String word : words)
42     {
43         int wordHash = hash(word, tableSize);
44         table[wordHash]++;
45     }
46
47     System.out.printf(format, "Writing to file %s\n", outputName);
48
49     writeFile(outputName, table);
50 }
51
```

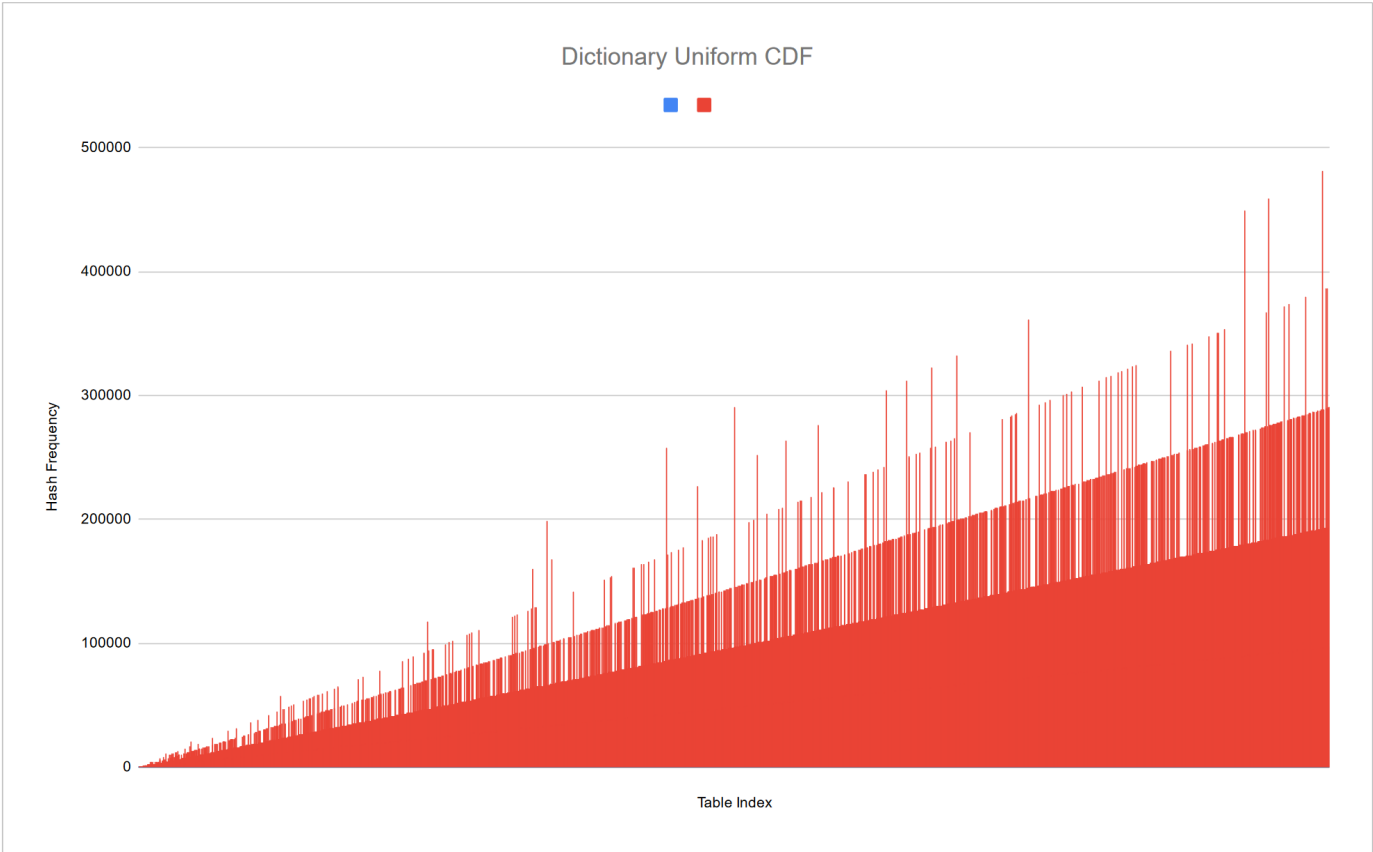
```
53 public static void writeFile(String outputFilename, int[] table)
54 {
55     FileOutputStream output = null;
56     BufferedOutputStream stream = null;
57
58     try
59     {
60         output = new FileOutputStream(outputFilename);
61         stream = new BufferedOutputStream(output);
62
63         String outputData = "";
64
65         int i = 0;
66         for (int v : table)
67         {
68             // output |number, value\n
69             outputData += (i) + ", " + (v * i++) + "\n";
70         }
71
72         stream.write(outputData.getBytes());
73     }
74     catch (FileNotFoundException e)
75     {
76         System.out.println(x:"Filename Error!");
77         e.printStackTrace();
78     }
79     catch (IOException e)
80     {
81         System.out.println(x:"Unknown Input/Output Error!");
82         e.printStackTrace();
83     }
84
85     // Try to close the file
86     try
87     {
88         if (output != null) output.close();
89         if (stream != null) stream.close();
90     }
91     catch (IOException e)
92     {
93         System.out.println(x:"Error closing resources!");
94         e.printStackTrace();
95     }
96 }
```

Chapter 20: Programming

```
100 public static String[] readFile(String filename)
101 {
102     FileInputStream input = null;
103     BufferedInputStream stream = null;
104
105     String[] lines = new String[500];
106
107     // Try to read the file
108     try
109     {
110         input = new FileInputStream(filename);
111         stream = new BufferedInputStream(input);
112
113         lines = new String( stream.readAllBytes() )
114         | | | | | | | | | | .split(System.lineSeparator());
115     }
116     catch (FileNotFoundException e)
117     {
118         System.out.println(x:"Filename Error!");
119         e.printStackTrace();
120     }
121     catch (IOException e)
122     {
123         System.out.println(x:"Unknown Input/Output Error!");
124         e.printStackTrace();
125     }
126
127     // Try to close the file
128     try
129     {
130         if (input != null) input.close();
131         if (stream != null) stream.close();
132     }
133     catch (IOException e)
134     {
135         System.out.println(x:"Error closing resources!");
136         e.printStackTrace();
137     }
138
139     return lines;
140 }
```

20.17 Output

```
c:\Users\wes\github-repos\cs2420_summer2023\Chapter20\Programming - VS Code Console
Read onlineDictionary.txt | Contains 48447 lines | Table will be 96894 rows
Writing to file output.csv
Press any key to continue . . .
```



Chapter 20: Programming
