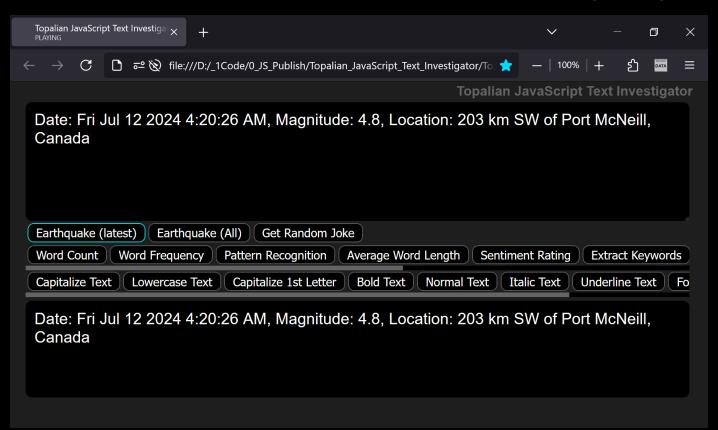
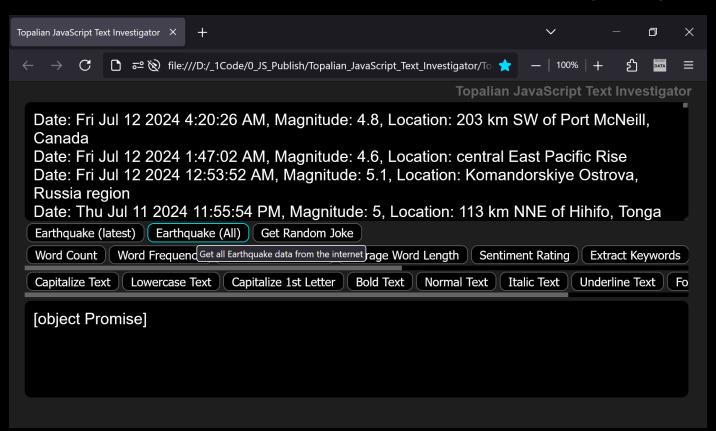
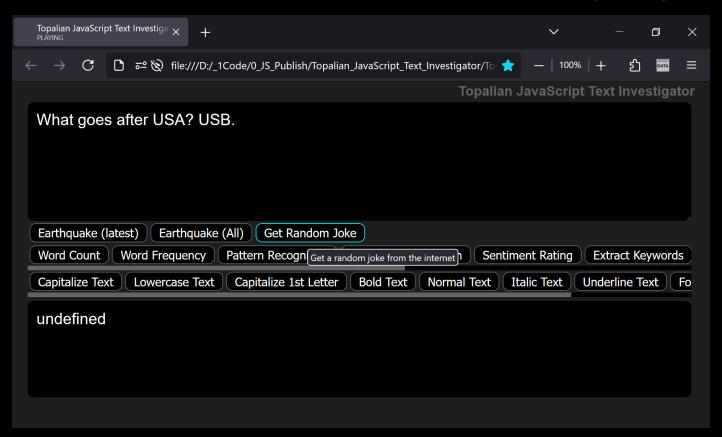
Topalian **JavaScript Text** Investigator **Christopher Andrew Topalian**

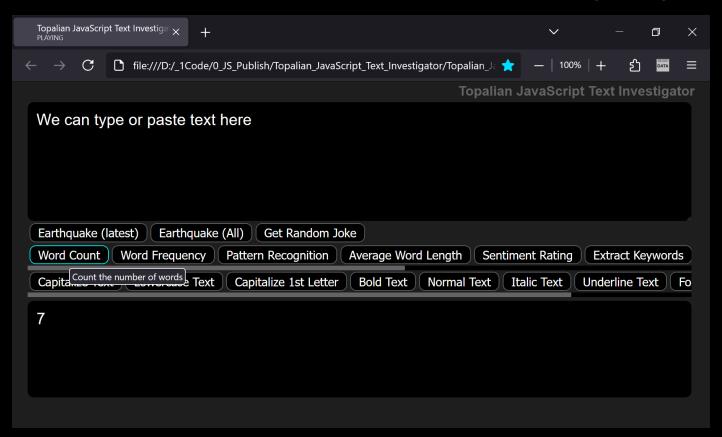
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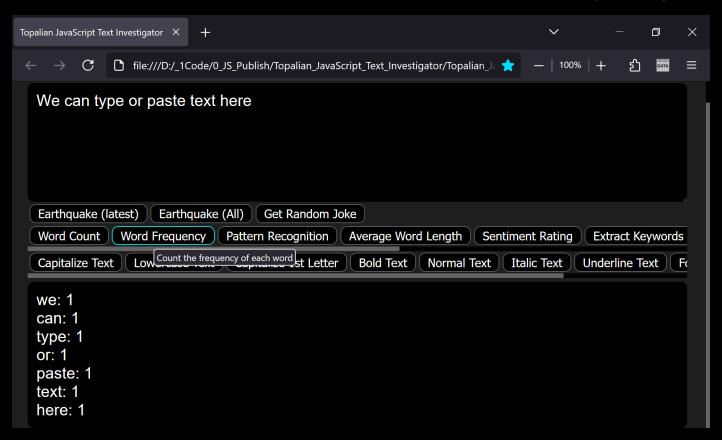
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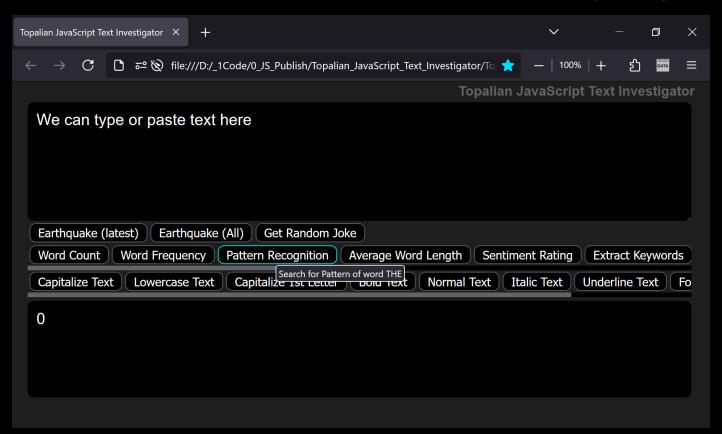


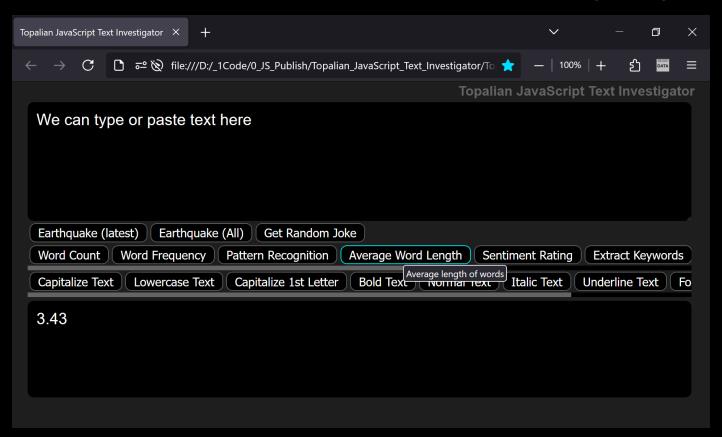


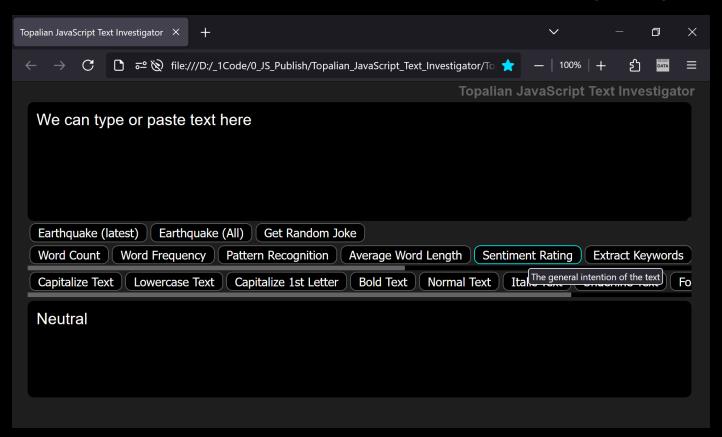


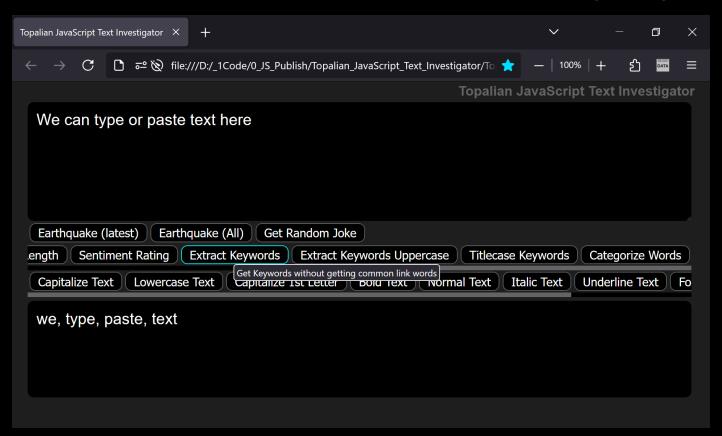


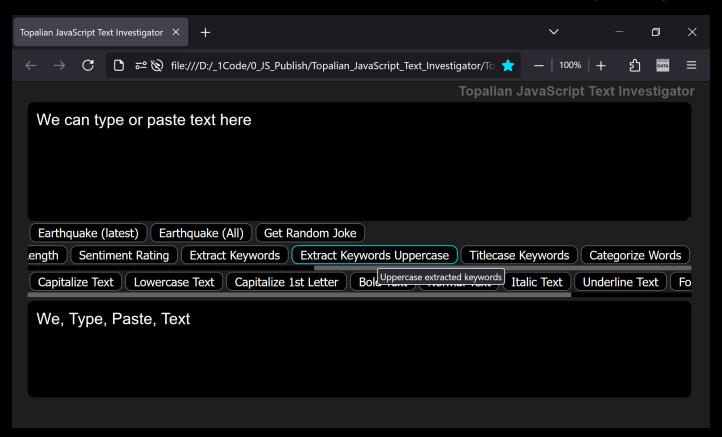


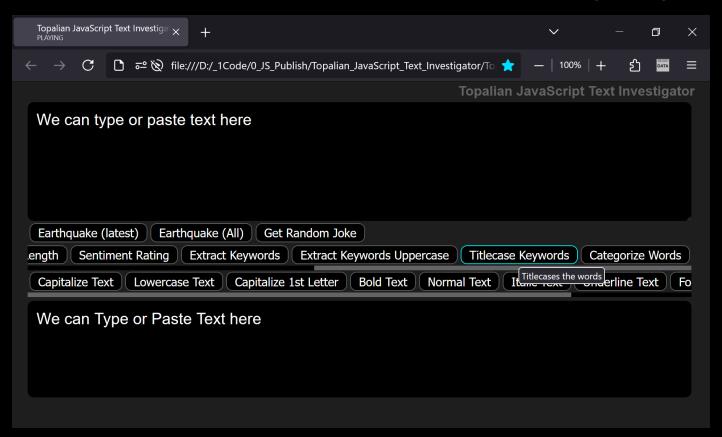


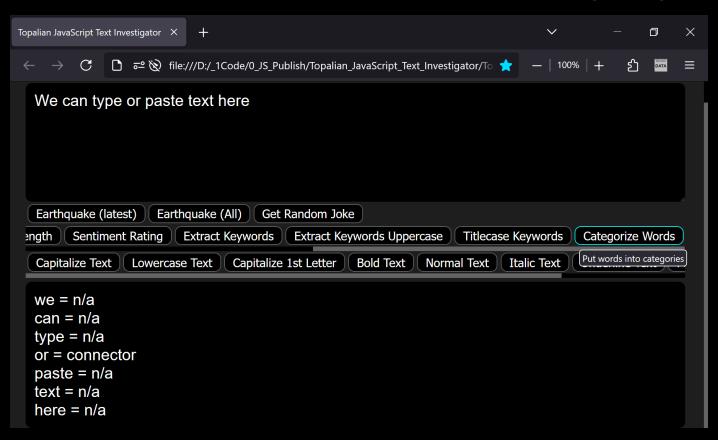


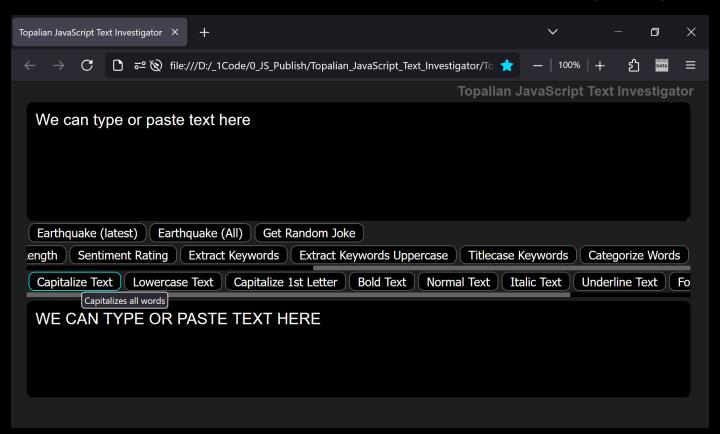


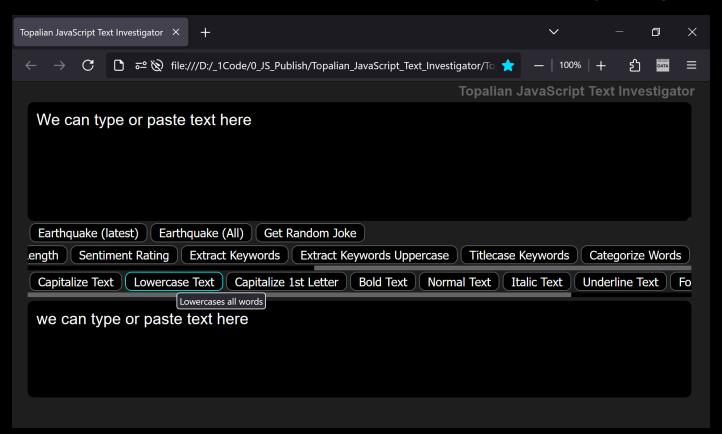


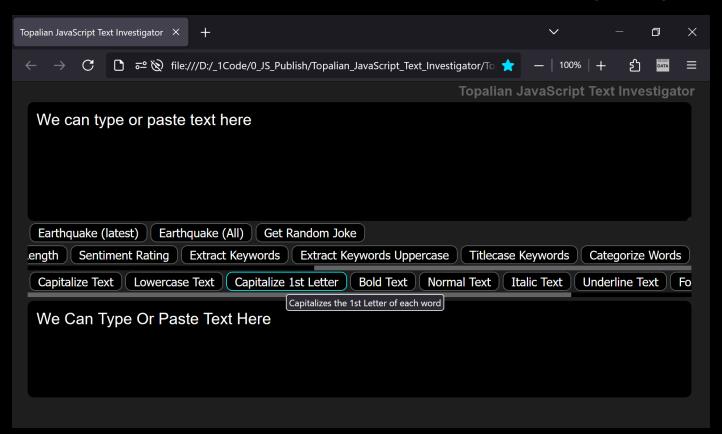


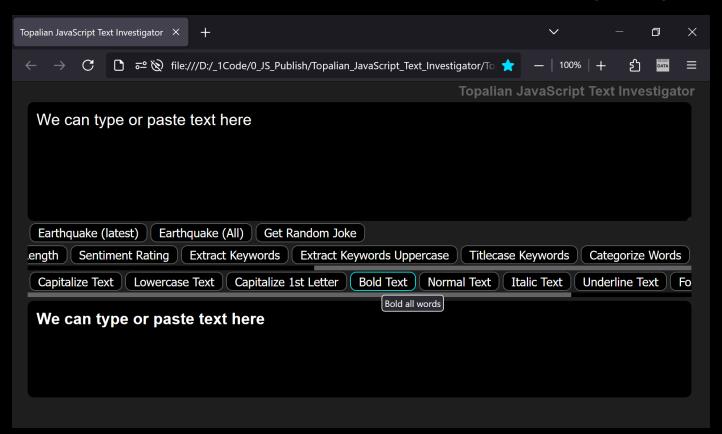


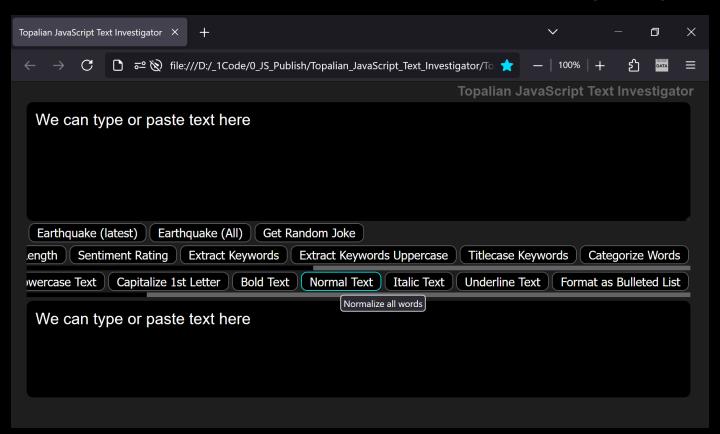


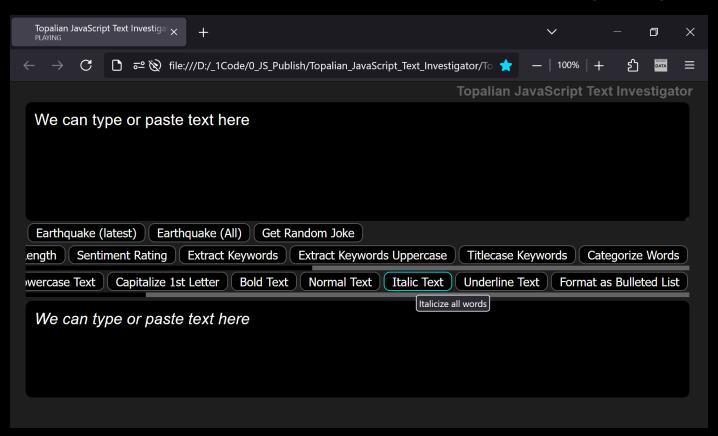


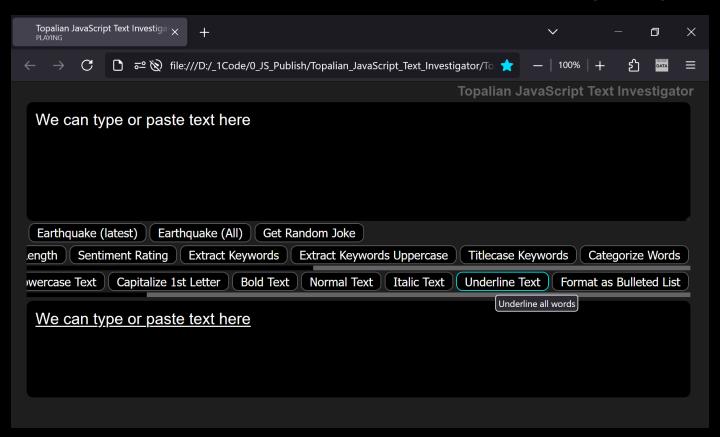


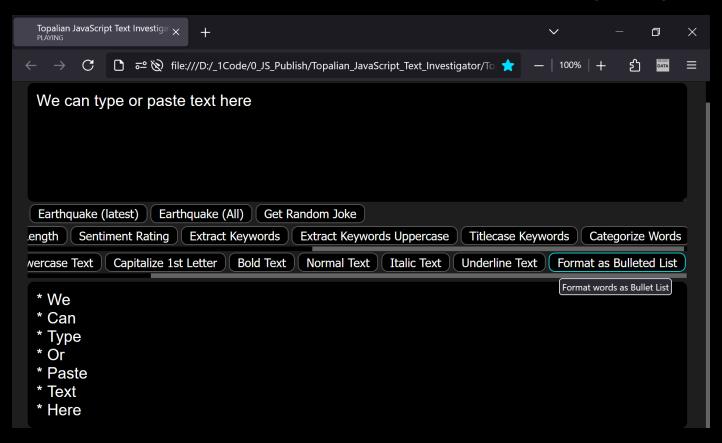


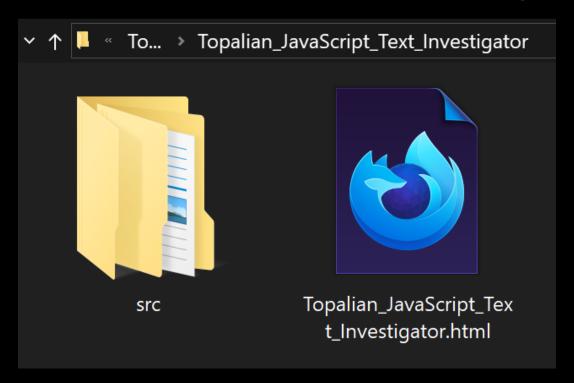


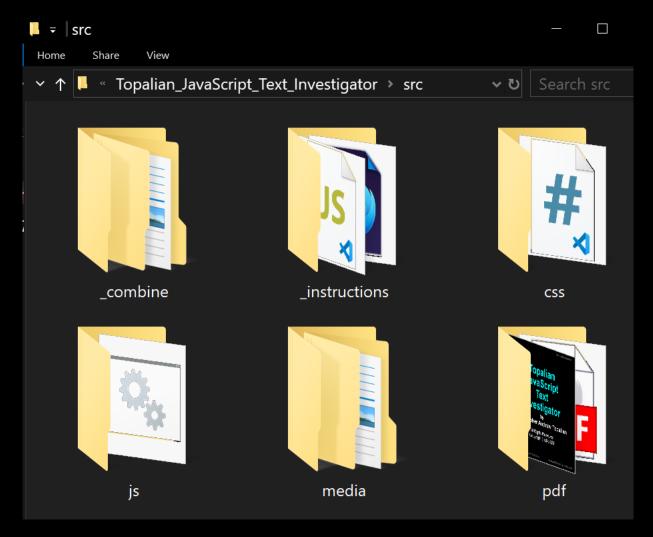


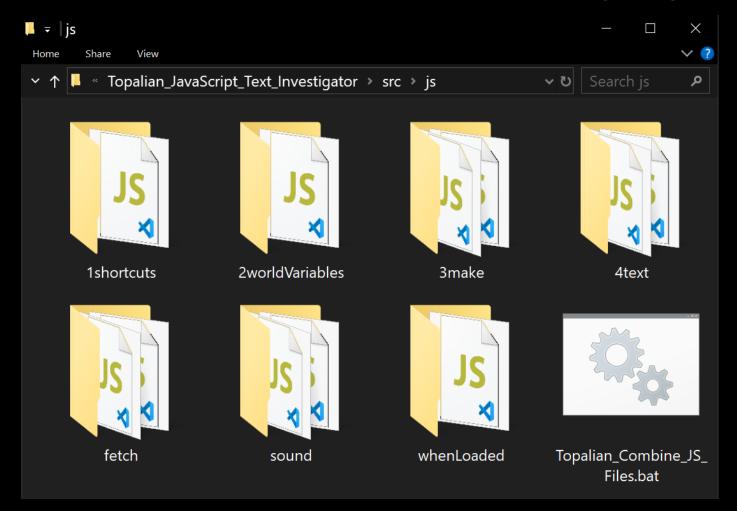


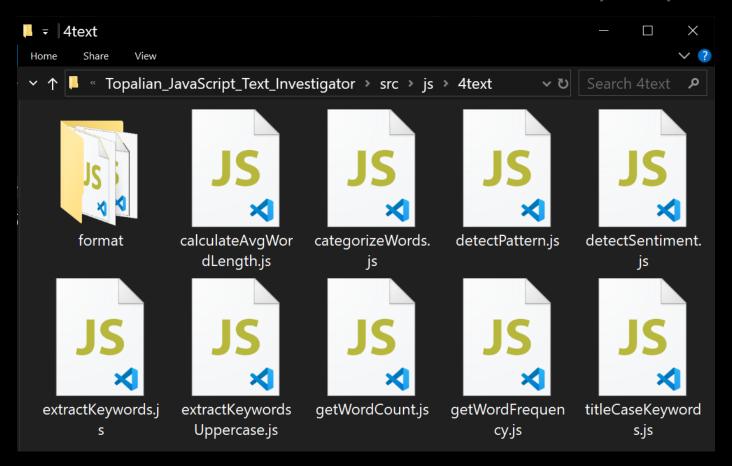


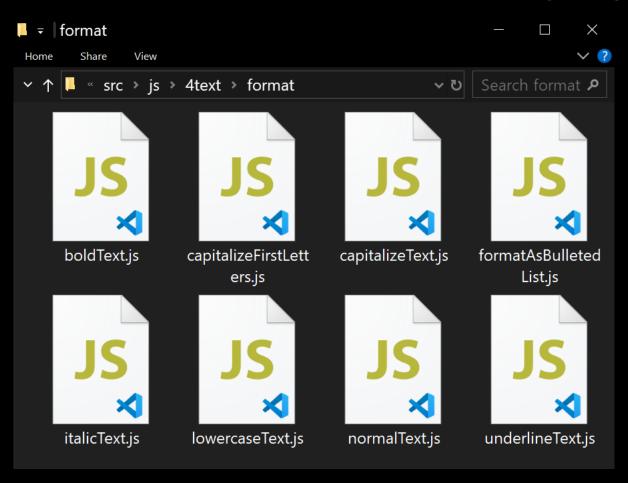












```
<!-- Dedicated to God the Father -->
<!-- All Rights Reserved Christopher Andrew
Topalian Copyright 2000-2024 -->
<!-- https://github.com/ChristopherTopalian --
<!--
https://github.com/ChristopherAndrewTopalia
n -->
<!-- https://github.com/ChristopherTopalian/ --
<!--
Topalian_JavaScript_Text_Investigator.html --
>
<!-- Version 001 - (2024-07-12) -->
<html>
<head>
```

```
<title> Topalian JavaScript Text Investigator
</title>
<link rel = 'stylesheet' href =</pre>
'src/css/style001.css'>
<!-- shortcuts -->
<script src =
'src/js/1shortcuts/shortcuts.js'></script>
<!-- world variables -->
<script src =
'src/js/2worldVariables/worldVariables.js'></s
cript>
<!-- make -->
<script src =
'src/js/3make/makeInterface.js'></script>
```

```
<script src =
'src/js/3make/makeTitleOfApp.js'></script>
<!-- text -->
<script src =
'src/js/4text/detectPattern.js'></script>
<script src =
'src/js/4text/getWordCount.js'></script>
<script src =
'src/js/4text/calculateAvgWordLength.js'></sc
ript>
<script src =
'src/js/4text/getWordFrequency.js'></script>
```

```
<script src =
```

'src/js/4text/detectSentiment.js'></script>

<script src =

'src/js/4text/extractKeywords.js'></script>

<script src =

'src/js/4text/categorizeWords.js'></script>

<script src =

'src/js/4text/extractKeywordsUppercase.js'></
script>

<script src =

'src/js/4text/titleCaseKeywords.js'></script>

<!-- text format -->

```
<script src =
```

'src/js/4text/format/capitalizeText.js'></script>

```
<script src =
```

'src/js/4text/format/lowercaseText.js'></script
>

<script src =

'src/js/4text/format/capitalizeFirstLetters.js'></ri>

<script src =

'src/js/4text/format/boldText.js'></script>

<script src =

'src/js/4text/format/normalText.js'></script>

```
<script src =
```

'src/js/4text/format/italicText.js'></script>

```
<script src =
```

'src/js/4text/format/underlineText.js'></script>

<script src =

'src/js/4text/format/formatAsBulletedList.js'><
/script>

<!-- fetch -->

<script src =

'src/js/fetch/fetchRandomJoke.js'></script>

<script src =

'src/js/fetch/fetchMostRecentEarthquakeData. js'></script>

```
<script src =
'src/js/fetch/fetchAllEarthquakeData.js'></scri
pt>
<!-- sound -->
<script src =
'src/js/sound/sounds.js'></script>
<script src =
'src/js/sound/loadSounds.js'></script>
<script src =
'src/js/sound/audioPlay.js'></script>
<!-- when loaded -->
<script src =
'src/js/whenLoaded/whenLoaded.js'></script>
```

</head>

<body onload = 'whenLoaded();'>

</body>

</html>

```
/* Dedicated to God the Father */
/* All Rights Reserved Christopher Andrew
Topalian Copyright 2000-2024 */
/* https://github.com/ChristopherTopalian */
https://github.com/ChristopherAndrewTopalia
n */
/* style001.css */
body
  background-color: rgb(30, 30, 30);
  font-family: Arial;
  font-size: 20px;
  color: rgb(255, 255, 255);
```

textarea

```
padding-left: 10px;
padding-right: 10px;
padding-top: 10px;
padding-bottom: 10px;
border: solid 1px rgb(0, 0, 0);
border-radius: 8px;
background-color: rgb(0, 0, 0);
font-family: Arial;
font-size: 20px;
color: rgb(255, 255, 255);
color: rgb(100, 100, 100);
text-decoration: none;
```

```
a:hover
  text-decoration: underline;
#mainContainer
  width: 95%;
  margin: auto;
#textInput
  width: 100%;
  height: 150px;
```

```
#resultContainer
  margin-top: 5px;
  padding-left: 10px;
  padding-right: 10px;
  padding-top: 10px;
  padding-bottom: 10px;
  border: solid 1px rgb(0, 0, 0);
  border-radius: 8px;
  background-color: rgb(0, 0, 0);
  font-family: Arial;
  font-size: 20px;
  color: rgb(255, 255, 255);
.buttonStyle001
  max-height: 40px;
```

```
margin: 2px;
  padding-left: 10px;
  padding-right: 10px;
  padding-top: 2px;
  padding-bottom: 2px;
  border: solid 1px rgb(100, 100, 100);
  border-radius: 8px;
  background-color: rgb(0, 0, 0);
  font-size: 15px;
  color: rgb(255, 255, 255);
  cursor: pointer;
  box-sizing: border-box;
.buttonStyle001:hover
  border-color: rgb(0, 255, 255);
```

```
.buttonStyle001:active
  position: relative;
  top: 1px;
  border-color: rgb(255, 0, 255);
  color: rgb(255, 0, 255);
  scrollbar-width: thin;
  scrollbar-color: rgb(100, 100, 100) rgb(0, 0,
0);
```

```
// Dedicated to God the Father
// All Rights Reserved Christopher Andrew
Topalian Copyright 2000-2024
// https://github.com/ChristopherTopalian
https://github.com/ChristopherAndrewTopalia
// shortcuts.js
function ge(whichId)
  let result =
document.getElementByld(whichId);
  return result;
function ce(whichType)
```

```
let result =
document.createElement(whichType);
  return result;
function ba(whichElement)
  let result =
document.body.append(whichElement);
  return result:
```

```
// Dedicated to God the Father
// All Rights Reserved Christopher Andrew
Topalian Copyright 2000-2024
// https://github.com/ChristopherTopalian
//
https://github.com/ChristopherAndrewTopalia
n
// worldVariables.js
```

let online = false;

```
// Dedicated to God the Father
// All Rights Reserved Christopher Andrew
Topalian Copyright 2000-2024
// https://github.com/ChristopherTopalian
https://github.com/ChristopherAndrewTopalia
// makeInterface.js
function makeInterface()
  // mainContainer
  let mainContainer = ce('div');
  mainContainer.id = 'mainContainer';
  mainContainer.style.position = 'absolute';
  mainContainer.style.left = '20px';
  mainContainer.style.top = '25px';
  ba(mainContainer);
```

```
//-//
  // textInput
  let textInput = ce('textarea');
  textInput.id = 'textInput';
  textInput.placeholder = 'Enter words
here...';
  mainContainer.append(textInput);
  //-//
  // btnDivInternetData
  let btnDivInternetData = ce('div');
  btnDivInternetData.style.display = 'flex';
  btnDivInternetData.style.flexDirection =
'row';
  btnDivInternetData.style.overflowX = 'auto';
```

```
btnDivInternetData.style.whiteSpace =
'nowrap';
  // horizontal scrolling mouse wheel,
without needing to hold shift button
btnDivInternetData.addEventListener('wheel',
function(event)
    if (event.deltaY !== 0)
       btnDivInternetData.scrollLeft +=
event.deltaY;
       event.preventDefault();
```

mainContainer.append(btnDivInternetData);

```
//-//
  let internetDataBtnArray =
       name: 'Earthquake (latest)',
       functionName:
`fetchMostRecentEarthquakeData()`,
       description: 'Get most recent
Earthquake data from the internet'
       name: 'Earthquake (All)',
```

```
functionName:
`fetchAllEarthquakeData()`,
       description: 'Get all Earthquake data
from the internet'
       name: 'Get Random Joke',
       functionName: `fetchRandomJoke()`,
       description: 'Get a random joke from
the internet'
  for (let i = 0; i <
internetDataBtnArray.length; i++)
    let theButton = ce('button');
```

```
theButton.className = 'buttonStyle001';
    theButton.innerHTML =
internetDataBtnArray[i].name;
    theButton.title =
internetDataBtnArray[i].description;
    theButton.onmouseover = function()
      audioPlay('sfx warp 001', 1.0);
    };
    theButton.onclick = function(buttonInfo)
      audioPlay('sfx_blip_001', 1.0);
       ge('resultContainer').innerHTML =
eval(internetDataBtnArray[i].functionName);
```

```
btnDivInternetData.append(theButton);
  //-//
  // btnDivAnalyzeText
  let btnDivAnalyzeText = ce('div');
  btnDivAnalyzeText.style.display = 'flex';
  btnDivAnalyzeText.style.flexDirection =
'row':
  btnDivAnalyzeText.style.overflowX = 'auto';
  btnDivAnalyzeText.style.whiteSpace =
'nowrap';
  // horizontal scrolling mouse wheel,
without needing to hold shift button
```

```
btnDivAnalyzeText.addEventListener('wheel',
function(event)
    if (event.deltaY !== 0)
       btnDivAnalyzeText.scrollLeft +=
event.deltaY;
       event.preventDefault();
mainContainer.append(btnDivAnalyzeText);
  //-//
  let analyzeButtons =
```

```
name: 'Word Count',
      functionName:
`getWordCount(textInput.value)`,
      description: 'Count the number of
words'
      name: 'Word Frequency',
      functionName:
`getWordFrequency(textInput.value)`,
      description: 'Count the frequency of
each word'
```

```
name: 'Pattern Recognition',
       functionName:
`detectPattern(textInput.value)`,
       description: 'Search for Pattern of
word THE'
       name: 'Average Word Length',
       functionName:
`calculateAvgWordLength(textInput.value)`,
       description: 'Average length of words'
    },
       name: 'Sentiment Rating',
       functionName:
`detectSentiment(textInput.value)`,
```

```
description: 'The general intention of
the text'
       name: 'Extract Keywords',
      functionName:
`extractKeywords(textInput.value)`,
      description: 'Get Keywords without
getting common link words'
       name: 'Extract Keywords Uppercase',
      functionName:
`extractKeywordsUppercase(textInput.value)`
```

```
description: 'Uppercase extracted
keywords'
       name: 'Titlecase Keywords',
       functionName:
`titleCaseKeywords(textInput.value)`,
       description: 'Titlecases the words'
       name: 'Categorize Words',
       functionName:
`categorizeWords(textInput.value)`,
       description: 'Put words into
categories'
```

```
];
  for (let i = 0; i < analyzeButtons.length; i++)
    let theButton = ce('button');
    theButton.className = 'buttonStyle001';
    theButton.innerHTML =
analyzeButtons[i].name;
    theButton.title =
analyzeButtons[i].description;
    theButton.onmouseover = function()
       audioPlay('sfx_warp_001', 1.0);
    theButton.onclick = function(buttonInfo)
```

```
audioPlay('sfx_blip_001', 1.0);
       ge('resultContainer').innerHTML =
eval(analyzeButtons[i].functionName);
    btnDivAnalyzeText.append(theButton);
  ]]-[]
  // btnDivFormatting
  let btnDivFormatting = ce('div');
  btnDivFormatting.style.display = 'flex';
  btnDivFormatting.style.flexDirection =
'row';
  btnDivFormatting.style.overflowX = 'auto';
```

```
btnDivFormatting.style.whiteSpace =
'nowrap';
  // horizontal scrolling mouse wheel,
without needing to hold shift button
btnDivFormatting.addEventListener('wheel',
function(event)
    if (event.deltaY !== 0)
       btnDivFormatting.scrollLeft +=
event.deltaY;
       event.preventDefault();
  });
  mainContainer.append(btnDivFormatting);
```

//-//

```
let formattingButtons =
       name: 'Capitalize Text',
       functionName:
`capitalizeText(textInput.value)`,
       description: 'Capitalizes all words'
       name: 'Lowercase Text',
       functionName:
`lowercaseText(textInput.value)`,
       description: 'Lowercases all words'
```

```
name: 'Capitalize 1st Letter',
       functionName:
`capitalizeFirstLetters(textInput.value)`,
       description: 'Capitalizes the 1st Letter
of each word'
       name: 'Bold Text',
       functionName:
`boldText(textInput.value)`,
       description: 'Bold all words'
       name: 'Normal Text',
```

```
functionName:
`normalText(textInput.value)`,
       description: 'Normalize all words'
       name: 'Italic Text',
       functionName:
`italicText(textInput.value)`,
       description: 'Italicize all words'
       name: 'Underline Text',
       functionName:
`underlineText(textInput.value)`,
       description: 'Underline all words'
```

```
name: 'Format as Bulleted List',
       functionName:
`formatAsBulletedList(textInput.value)`,
       description: 'Format words as Bullet
List'
  for (let i = 0; i < formattingButtons.length;
i++)
    let theButton = ce('button');
    theButton.className = 'buttonStyle001';
    theButton.innerHTML =
formattingButtons[i].name;
```

```
theButton.title =
formattingButtons[i].description;
    theButton.onmouseover = function()
      audioPlay('sfx_warp_001', 1.0);
    };
    theButton.onclick = function(buttonInfo)
      audioPlay('sfx_blip_001', 1.0);
       ge('resultContainer').innerHTML =
eval(formattingButtons[i].functionName);
    btnDivFormatting.append(theButton);
```

//-//

```
let resultContainer = ce('div');
resultContainer.id = 'resultContainer';
resultContainer.style.minHeight = '100px';
mainContainer.append(resultContainer);
```

```
// Dedicated to God the Father
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Topalian Copyright 2000-2024
// https://github.com/ChristopherTopalian
https://github.com/ChristopherAndrewTopalia
// makeTitleOfApp.js
function makeTitleOfApp()
  // titleContainer
  let titleContainer = ce('div');
  titleContainer.style.position = 'absolute';
  titleContainer.style.right = '20px';
  titleContainer.style.top =
titleContainer.style.top = '2px';
  titleContainer.style.zIndex = 1;
```

```
ba(titleContainer);
  //-//
  // titleOfApp
  let titleOfApp = ce('div');
  titleOfApp.id = 'titleOfApp';
  titleOfApp.innerHTML =
  `<a href =
'https://github.com/christophertopalian/topali
an javascript text investigator' target =
' blank'> Topalian JavaScript Text
Investigator </a>`;
  titleOfApp.style.fontSize = '17px';
  titleOfApp.style.fontWeight = 'bold';
  titleContainer.append(titleOfApp);
```

```
// Dedicated to God the Father
// All Rights Reserved Christopher Andrew
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// https://github.com/ChristopherTopalian
https://github.com/ChristopherAndrewTopalia
// calculateAvgWordLength.js
function calculateAvgWordLength(whichText)
  let words = whichText.split(/\s+/);
  let totalLength = 0;
  let wordCount = 0;
  for (let i = 0; i < words.length; i++)
    let word = words[i];
```

```
if (word.length > 0)
       totalLength += word.length;
       wordCount++;
  if (wordCount > 0)
    return (totalLength /
wordCount).toFixed(2);
  else
    return 0;
```

```
// Dedicated to God the Father
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// https://github.com/ChristopherTopalian
https://github.com/ChristopherAndrewTopalia
//categorizeWords.js
function categorizeWords(whichText)
  // define word categories
  let categories =
    specifier: ["the", "a", "an", "those",
"that", "them", "they", "this"],
    connector: ["and", "but", "or",
"however", "therefore"],
```

```
thing: ["chair", "table", "car"],
     time: ["early", "late", "morning",
"evening", "yesterday", "today", "tomorrow",
"now", "then", "when"]
  };
  // convert which Text to lowercase and split
it into words
  let words = whichText.toLowerCase().split('
');
  // array to hold categorized words
  let categorizedWords = [];
  // loop through words in whichText
  for (let i = 0; i < words.length; i++)
     let word = words[i];
```

```
let categoryFound = false;
    // check each category
    let categoryKeys =
Object.keys(categories);
    for (let k = 0; k < categoryKeys.length; k+
       let category = categoryKeys[k];
       let categoryWords =
categories[category];
       for (let j = 0; j < categoryWords.length;
         if (word === categoryWords[j])
```

```
categorizedWords.push(word + "
+ category);
        categoryFound = true;
        break;
   if (categoryFound)
      break;
 // if no category found, label as n/a
 if (!categoryFound)
```

```
categorizedWords.push(word + " =
n/a");
}
return categorizedWords.join("<br>}
```

```
// Dedicated to God the Father
// All Rights Reserved Christopher Andrew
Topalian Copyright 2000-2024
// https://github.com/ChristopherTopalian
https://github.com/ChristopherAndrewTopalia
// detectPattern.js
function detectPattern(whichText)
  let pattern = /the/gi;
  let matches = whichText.match(pattern);
  let matchCount;
  if (matches)
```

```
{
    matchCount = matches.length;
}
else
{
    matchCount = 0;
}
return matchCount;
```

```
// Dedicated to God the Father
// All Rights Reserved Christopher Andrew
Topalian Copyright 2000-2024
// https://github.com/ChristopherTopalian
https://github.com/ChristopherAndrewTopalia
// detectSentiment.js
function detectSentiment(whichText)
  // positive words
  let positiveWords = ["happy", "joy", "love",
"excellent", "good", "great", "fantastic",
"positive", "nice", "wonderful"];
  // negative words
```

```
let negativeWords = ["sad", "anger",
"hate", "terrible", "bad", "horrible",
"negative", "mean", "evil"];
  // initialize sentiment scores
  let positiveScore = 0;
  let negativeScore = 0;
  // convert which Text to lowercase and split
it into words
  let words =
whichText.toLowerCase().split(/\W+/);
  // loop through words in whichText
  for (let i = 0; i < words.length; i++)
     let word = words[i];
```

```
// is word in list of pos words
    for (let j = 0; j < positiveWords.length; j+
       if (word === positiveWords[j])
          positiveScore++;
         // exit inner loop if match found
          break;
    // is word in list of neg words
    for (let k = 0; k < negativeWords.length;
k++)
       if (word === negativeWords[k])
```

```
negativeScore++;
       // exit inner loop if match found
       break;
let sentiment;
// determine sentiment
if (positiveScore > negativeScore)
  sentiment = "Positive";
else if (negativeScore > positiveScore)
  sentiment = "Negative";
```

```
else
{
    sentiment = "Neutral";
}

return sentiment;
}
```

```
// Dedicated to God the Father
// All Rights Reserved Christopher Andrew
Topalian Copyright 2000-2024
// https://github.com/ChristopherTopalian
https://github.com/ChristopherAndrewTopalia
// extractKeywords.js
function extractKeywords(whichText)
  // array of common stop words to ignore
  let stopWords = ["a", "and", "and", "the",
"in", "on", "at", "of", "to", "is", "it", "that",
"this", "with", "for", "as", "by", "but", "or",
"nor", "up", "down", "out", "over", "under",
"again", "further", "then", "once", "here",
"there", "when", "where", "why", "how", "all",
```

```
"any", "both", "each", "few", "more", "most",
"other", "some", "such", "no", "nor", "too",
"very", "can", "will", "just", "should", "now"];
  // convert whichText to lowercase and split
it into words
  let words = whichText.toLowerCase().split('
');
  // object to store word frequencies
  let wordFrequencies = {};
  // loop through words in whichText
  for (let i = 0; i < words.length; i++)
    let word = words[i];
    let isStopWord = false;
```

```
// is word not a stop word
    for (let j = 0; j < stopWords.length; j++)
       if (word === stopWords[j])
         isStopWord = true;
         break;
    if (!isStopWord && word.length > 1)
       // if word is not a stop word, count its
frequency
       if (wordFrequencies[word])
         wordFrequencies[word]++;
```

```
else
         wordFrequencies[word] = 1;
  // convert word frequencies object into an
array of [word, frequency] pairs
  let frequencyArray = [];
  for (let word in wordFrequencies)
    frequencyArray.push([word,
wordFrequencies[word]]);
```

```
// sort array by frequency in descending
order
  frequencyArray.sort(function(a, b)
  {
    return b[1] - a[1];
  });
  // get top 10 keywords
  let topKeywords = frequencyArray.slice(0,
10).map(function(pair)
    return pair[0];
  });
  // return top keywords as comma separated
string
  return topKeywords.join(', ');
```

```
// Dedicated to God the Father
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https://github.com/ChristopherAndrewTopalia
// extractKeywordsUppercase.js
function
extractKeywordsUppercase(whichText)
  // array of common stop words to ignore
  let stopWords = ["a", "an", "and", "the",
"in", "on", "at", "of", "to", "is", "it", "that",
"this", "with", "for", "as", "by", "but", "or",
"nor", "up", "down", "out", "over", "under",
"again", "further", "then", "once", "here",
```

```
"there", "when", "where", "why", "how", "all",
"any", "both", "each", "few", "more", "most",
"other", "some", "such", "no", "nor", "too",
"very", "can", "will", "just", "should", "now"];
  // convert whichText to lowercase and split
it into words
  let words = whichText.toLowerCase().split('
');
  // object to store word frequencies
  let wordFrequencies = {};
  // loop through words in whichText
  for (let i = 0; i < words.length; i++)
     let word = words[i];
```

```
// is word not a stop word
    let isStopWord = false;
     for (let j = 0; j < stopWords.length; j++)
       if (word === stopWords[j])
         isStopWord = true;
         break;
    if (!isStopWord && word.length > 1)
       // if word is not a stop word, count its
frequency
       if (wordFrequencies[word])
```

```
wordFrequencies[word]++;
      else
         wordFrequencies[word] = 1;
  // convert word frequencies object into an
array of [word, frequency] pairs
  let frequencyArray = [];
  for (let word in wordFrequencies)
    frequencyArray.push([word,
wordFrequencies[word]]);
```

```
// sort array by frequency in descending
order
  for (let i = 0; i < frequencyArray.length - 1;
i++)
     for (let j = i + 1; j < i
frequencyArray.length; j++)
       if (frequencyArray[i][1] <
frequencyArray[j][1])
          let temp = frequencyArray[i];
          frequencyArray[i] =
frequencyArray[j];
          frequencyArray[j] = temp;
```

```
// get top 10 keywords
  let topKeywords = [];
  for (let i = 0; i < 10 && i <
frequencyArray.length; i++)
    topKeywords.push(frequencyArray[i][0]);
  // capitalize first letter of each keyword
  for (let i = 0; i < topKeywords.length; i++)
    topKeywords[i] =
topKeywords[i].charAt(0).toUpperCase() +
topKeywords[i].slice(1);
```

```
// return top keywords as comma separated
string
  return topKeywords.join(', ');
}
```

```
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// getWordCount.js
function getWordCount(whichText)
  let words = whichText.split(/\s+/);
  let wordCount = 0;
  for (let i = 0; i < words.length; i++)
    if (words[i].length > 0)
```

```
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n
// getWordFrequency.js
function getWordFrequency(whichText)
  let words =
whichText.toLowerCase().split(/\s+/);
  let frequency = {};
  for (let i = 0; i < words.length; i++)
```

```
let word = words[i];
  if (word.length > 0)
    if (frequency[word])
       frequency[word]++;
    else
       frequency[word] = 1;
let frequencyList = ";
for (let word in frequency)
```

```
if (frequency.hasOwnProperty(word))
{
    frequencyList += word + ': ' +
frequency[word] + '<br>;
}
return frequencyList;
}
```

```
// Dedicated to God the Father
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// https://github.com/ChristopherTopalian
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// titleCaseKeywords.js
function titleCaseKeywords(whichText)
  // array of common stop words to ignore
  let stopWords = ["a", "an", "and", "the",
"in", "on", "at", "of", "to", "is", "it", "that",
"this", "with", "for", "as", "by", "but", "or",
"nor"];
```

```
// convert whichText to lowercase and split
it into words
  let words = whichText.toLowerCase().split('
');
  // object to store word frequencies
  let wordFrequencies = {};
  // loop through words in whichText
  for (let i = 0; i < words.length; i++)
     let word = words[i];
     let isStopWord = false;
     // is word not a stop word
     for (let j = 0; j < stopWords.length; j++)
```

```
if (word === stopWords[j])
         isStopWord = true;
         break;
    if (!isStopWord && word.length > 1)
       // if word is not a stop word, count its
frequency
       if (wordFrequencies[word])
         wordFrequencies[word]++;
       else
         wordFrequencies[word] = 1;
```

```
// convert word frequencies object into an
array of [word, frequency] pairs
  let frequencyArray = [];
  let keys = Object.keys(wordFrequencies);
  for (let i = 0; i < keys.length; i++)
    let word = keys[i];
    frequencyArray.push([word,
wordFrequencies[word]]);
```

```
// sort array by frequency in descending
order
  for (let i = 0; i < frequencyArray.length - 1;
i++)
     for (let j = i + 1; j < j
frequencyArray.length; j++)
       if (frequencyArray[i][1] <
frequencyArray[j][1])
          let temp = frequencyArray[i];
          frequencyArray[i] =
frequencyArray[j];
          frequencyArray[j] = temp;
```

```
// get top 10 keywords
  let topKeywords = [];
  for (let i = 0; i < 10 && i <
frequencyArray.length; i++)
    topKeywords.push(frequencyArray[i][0]);
  // loop through words in whichText and
capitalize only the keywords
  let resultWords = [];
  for (let i = 0; i < words.length; i++)
    let word = words[i];
    let isKeyword = false;
```

```
if (i === 0)
       // always capitalize first word
resultWords.push(word.charAt(0).toUpperCa
se() + word.slice(1));
       continue;
    for (let j = 0; j < topKeywords.length; j++)
       if (word === topKeywords[j])
         isKeyword = true;
         break;
```

```
if (isKeyword)
resultWords.push(word.charAt(0).toUpperCa
se() + word.slice(1));
    else
       resultWords.push(word);
  return resultWords.join('');
```

```
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// boldText.js
function boldText(whichText)
  let bold = "<b>" + whichText + "</b>";
  return bold;
```

```
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n
// capitalizeFirstLetters.js
function capitalizeFirstLetters(whichText)
  // split whichText into words
  let words = whichText.split(" ");
  // array to hold capitalized words
  let capitalizedWords = [];
  // loop through each word
```

```
for (let i = 0; i < words.length; i++)
    let word = words[i];
    // if word is not empty, capitalize first
letter and add to array
    if (word.length > 0)
       let capitalizedWord =
word[0].toUpperCase() + word.slice(1);
capitalizedWords.push(capitalizedWord);
    else
       capitalizedWords.push(word);
```

```
// join capitalized words into a single string return capitalizedWords.join(" ");
```

```
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n
// capitalizeText.js
function capitalizeText(whichText)
  let upperCase = whichText.toUpperCase();
  return upperCase;
```

```
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// formatAsBulletedList.js
function formatAsBulletedList(whichText)
  let words = whichText.split(' ');
  // array to hold formatted list
  let formattedList = [];
  // loop through words in whichText
  for (let i = 0; i < words.length; i++)
```

```
// trim leading/trailing whitespace
     let word = words[i].trim();
    // add each non empty word as a new
bullet point
    if (word.length > 0)
       formattedList.push("* " +
word.charAt(0).toUpperCase() + word.slice(1)
+ '<br>');
  // return formatted list as a string with line
breaks
  return formattedList.join("\n");
```

```
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// italicText.js
function italicText(whichText)
  let bold = "<i>" + whichText + "</i>";
  return bold;
```

```
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// lowercaseText.js
function lowercaseText(whichText)
  let lowerCase = whichText.toLowerCase();
  return lowerCase;
```

```
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// normalText.js
function normalText(whichText)
  // replace <b> and </b> tags with empty
strings
  whichText = whichText.replace(/<\/?b>/gi,
  // replace <strong> and </strong> tags with
```

empty strings

```
whichText = whichText.replace(/<\/?
strong>/gi, "");

return whichText;
}
```

```
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// underlineText.js
function underlineText(whichText)
  let underline = "<u>" + whichText + "</u>";
  return underline;
```

```
// Dedicated to God the Father
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// fetchAllEarthquakeData.js
function fetchAllEarthquakeData()
  return
fetch('https://earthquake.usgs.gov/fdsnws/ev
ent/1/query?
format=geojson&orderby=time&minmagnitud
e=4.5')
  .then(function(response)
```

```
if (!response.ok)
       throw new Error('Network response
was not ok');
    return response.json();
  })
  .then(function(data)
    if (data.features.length > 0)
       let earthquakeList = [];
       // iterate through all earthquakes and
collect information
```

```
for (let i = 0; i < data.features.length; i+
         let earthquake = data.features[i];
         // format date
         let date = new
Date(earthquake.properties.time);
         let formattedDate = `$
{date.toDateString()} $
{date.toLocaleTimeString()}`;
         // make earthquake info string
         let earthquakeInfo = `Date: $
{formattedDate}, Magnitude: $
{earthquake.properties.mag}, Location: $
{earthquake.properties.place}`;
```

```
earthquakeList.push(earthquakeInfo);
       // join earthquake info into a single
string with newlines
       let allEarthquakesInfo =
earthquakeList.join("\n");
       ge("textInput").value =
allEarthquakesInfo;
       // return concatenated earthquake info
       return allEarthquakesInfo;
    else
```

```
throw new Error('No earthquake data
found');
  .catch(function(error)
    console.error('Error fetching earthquake
data:', error);
    // return error message or throw error
    throw error;
  });
```

```
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n
// fetchMostRecentEarthquakeData.js
function fetchMostRecentEarthquakeData()
fetch('https://earthquake.usgs.gov/fdsnws/ev
ent/1/query?
format=geojson&orderby=time&minmagnitud
e=4.5')
  .then(function(response)
```

```
if (!response.ok)
       throw new Error('Network response
was not ok');
    return response.json();
  })
  .then(function(data)
    if (data.features.length > 0)
       // get most recent earthquake
       let earthquake = data.features[0];
       // format date
```

```
let date = new
Date(earthquake.properties.time);
       let formattedDate = `$
{date.toDateString()} $
{date.toLocaleTimeString()}`;
       // make earthquake info string
       let earthquakeInfo = `Date: $
{formattedDate}, Magnitude: $
{earthquake.properties.mag}, Location: $
{earthquake.properties.place}`;
       // set value of textInput element with
earthquake info
       ge("textInput").value = earthquakeInfo;
       return earthquakeInfo;
```

```
else
       throw new Error('No earthquake data
found');
  .catch(function(error)
     console.error('Error fetching earthquake
data:', error);
  });
```

```
// Dedicated to God the Father
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// https://github.com/ChristopherTopalian
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// fetchRandomJoke.js
function fetchRandomJoke()
  fetch('https://official-joke-
api.appspot.com/random joke')
  .then(function(response)
    return response.json();
  })
```

```
.then(function(data)
     let joke = data.setup + " " +
data.punchline;
     ge("textInput").value = joke;
  .catch(function(error)
     console.error('Error fetching joke:',
error);
  });
```

```
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// audioPlay.js
function audioPlay(whichId, whichVolume)
  let audio = ge(whichld);
  if (audio)
    audio.volume = whichVolume;
    audio.play();
```

```
// Dedicated to God the Father
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// https://github.com/ChristopherTopalian
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// loadSounds.js
function loadSounds(whichArray)
  for (let x = 0; x < whichArray.length; <math>x++)
    let theSound = ce('audio');
    if (online == false)
```

```
theSound.src =
whichArray[x].soundFileOffline;
    else
      theSound.src =
whichArray[x].soundFileOnline;
    theSound.id = whichArray[x].name;
    theSound.loop = false;
    theSound.volume = 1.0;
    ba(theSound);
```

```
// Dedicated to God the Father
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// sounds.js
let sounds =
    name: 'sfx blip 001',
    soundFileOffline:
'src/media/sounds/sfx_blip_001.mp4',
    soundFileOnline:
'https://collegeofscripting.weebly.com/upload
s/6/4/4/8/64482293/sfx blip 001.mp4"
```

```
name: 'sfx warp 001',
    soundFileOffline:
'src/media/sounds/sfx_warp_001.mp3',
    soundFileOnline:
'https://collegeofscripting.weebly.com/upload
s/6/4/4/8/64482293/sfx warp 001.mp3'
];
```

```
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// https://github.com/ChristopherTopalian
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// whenLoaded.js
function whenLoaded()
  loadSounds(sounds);
  makeInterface();
  makeTitleOfApp();
```

How to Combine
.js files
into one
main.js file
using
Command
Prompt

Version for when we have only ONE folder of .js files that we want to combine.

// HowToCombineJSFilesOneFolder.js

First, we add two new lines at the end of every script. This way they will later combine nicely with a line break in between each script.

We open our js folder.
In our js project folder, we type
cmd
in the address bar of the folder and then
press enter

This opens our js folder in the Command prompt

We type in the words copy *.js main.js and then press enter

This creates a new file that is named main.js
This new file contains all .js files in ONE file.
But, there is a junk character at the end of the
main.js script that we have to delete. In
VSCode the character might be called SUB

```
titleContainer.append(titleOfApp);
}
```

SUB

We remove this junk SUB character and the code will now run.

```
titleContainer.append(titleOfApp);
}
```

As we can see, the junk character is removed.

<!-- Now, in our html code, we can type --> <script src = 'main.js'></script>

This makes it much easier to upload our js code to our website.

How to Combine
.js files
into one
main.js file
using
Command
Prompt

Version for when we have js scripts in subfolders in our js project folder, that we want to combine.

// HowToCombineJSFiles.js TUTORIAL:

How to Combine all .js files in all folders that are in our js folder.

Getting things ready:

We should add two new lines at the end every script. This way they will combine nicely with a line break in between each script.

Step One: Open our js folder

Step Two: Type in the address bar of the js folder, cmd, press Enter

This opens our js folder in the command prompt

Step Three: Type the command shown below in the command prompt and then press Enter

for /r "%CD%" %i in (*.js) do type "%i" >> main.js

Now we have a newly created .js file named main.js that has all of our js files included into one file.

This makes it easy to upload our application and easy to find out how many lines of code our project is.

To use our main.js file, we include it in our html file code:

<script src = 'js/main.js'></script>
Happy Scripting :-)

How to Combine
.js files
into one
main.js file
using
a batch file

Version for when we have js scripts in subfolders in our js project folder, that we want to combine.

// HowToCombineJSFilesUsingBatFile.js

We can combine all of the .js files that are located in our js folder into one main.js file, using either:

The Command Prompt Method or

The .bat File Method

The .bat file method is very easy.
We double click the bat file, which is located in our js folder, and it will make a main.js file, which includes all .js files in the js folder, including all .js files in all subdirectories of our js folder.

This is a very easy way to combine our .js files, because we can double click the .bat file

anytime, and it will again generate the main.js file, which includes all .js files in the js folder, including all .js files in all subdirectories of our js folder. This makes uploading our application online much easier.

Happy Scripting :-)

- :: Topalian_Combine_JS_Files.bat
- :: This .bat File Combines All .js files in all folders of our project folder, into one main.js file.
- :: To activate this .bat file, we double click the .bat file, while it is located in our js folder.
- @echo off
 :: set the output file name
 set "output=main.js"
- :: clear existing output file
 type nul > "%output%"
- :: loop through all JavaScript files in subdirectories for /r %%i in (*.js) do (

```
:: append the content of each file to the
output file
  type "%%i" >> "%output%"
)
```

echo "JavaScript files combined into %output% successfully."

How to Combine .js files into one main.js file using Node.js

This version will successfully combine a single folder of js files.

It also works to combine js files in all subdirectories.

```
// Topalian Combine JS Files.js
let fs = require('fs');
let path = require('path');
function combineJSFiles(directory,
scriptFilename
{
  let outputFilePath = path.join(directory,
'main.js');
  let fileContents = [];
  function traverseFolder(folder)
     let files = fs.readdirSync(folder);
     for (let i = 0; i < files.length; i++)
```

```
let file = files[i];
        let filePath = path.join(folder, file);
        let stats = fs.statSync(filePath);
       if (stats.isDirectory())
          traverseFolder(filePath);
       else if (path.extname(filePath) === '.js')
          let content =
fs.readFileSync(filePath, 'utf8');
          // check if file is not script file itself
          if (filePath !== scriptFilename)
```

```
fileContents.push(content);
  traverseFolder(directory);
  fs.writeFileSync(outputFilePath,
fileContents.join('\n'), 'utf8');
  console.log(`Combined $
{fileContents.length} .js files into $
{outputFilePath}`);
// get current directory of script
let currentDirectory = process.cwd();
```

```
// get filename of script
let scriptFilename = __filename;
```

combineJSFiles(currentDirectory, scriptFilename); How to Combine
.js files
into one
main.js file
using
Python

This version will successfully combine a single folder of js files.

It also works to combine js files in all subdirectories.

```
# Topalian_Combine_JS_Files.py
import os
def combineJSFiles(directory,
scriptFileName):
  outputFilePath = os.path.join(directory,
'main.js')
  fileContents = []
  def traverseFolder(folder):
     for root, dirs, files in os.walk(folder):
       for file in files:
          filePath = os.path.join(root, file)
          if filePath != scriptFileName and
filePath.endswith('.js'):
            with open(filePath, 'r',
encoding='utf-8') as f:
```

fileContents.append(f.read())

traverseFolder(directory)

```
with open(outputFilePath, 'w',
encoding='utf-8') as f:
    f.write('\n'.join(fileContents))
  print(f"Combined {len(fileContents)} .js
files into {outputFilePath}")
# get current directory of script
currentDirectory =
os.path.dirname(os.path.abspath( file ))
# get filename of script
scriptFileName = os.path.abspath(__file__)
```

combineJSFiles(currentDirectory, scriptFileName)

What other file types can we combine?

We have combined .js files in this book, but we might choose to instead combine:
.py or .html or .txt
This is very useful for book making.
In each of the scripts shown in this book, we can manually change the parts where it says .js, with .py, if we wanted to, for instance, copy all .py files into one main.py file.

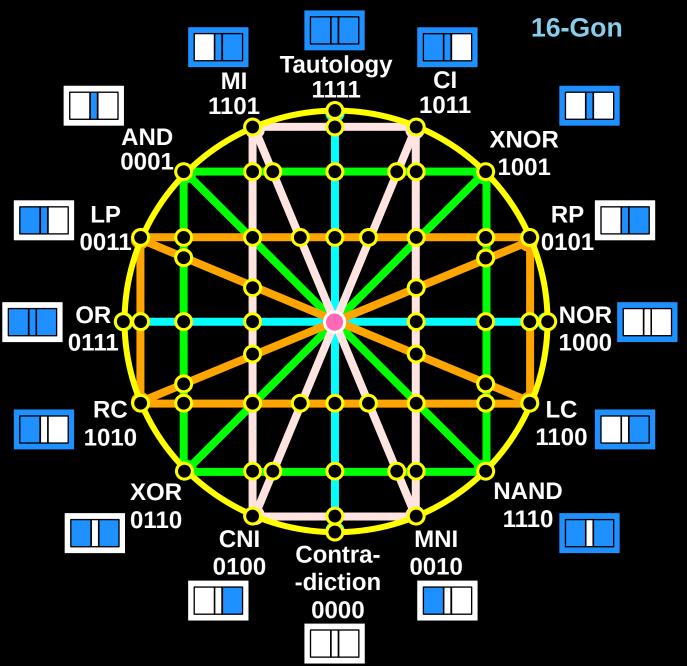
We can do the same thing for .html files, where we change the file type it will be combining to .html and it will combine all .html files into one main.html file.

We add two line breaks at the end of all files, so that there is space between files, when they are combined.

Remember too, that not all file types will combine, but the ones above will.

The original files are not changed. The content from the original files is only copied from.

True Artificial Intelligence System



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Dedicated to God the Father

This book is created by the College of Scripting Music & Science.

Always remember, that each time you write a script with a pencil and paper, it becomes imprinted so deeply in memory that the material and methods are learned extremely well.

When you Type the scripts, the same is true. The more you type and write out the scripts by keyboard or pencil and paper, the more you will learn programming!

Write and Type every example that you find. Keep all of your scripts organized.

Every script that you create increases your

programming abilities.

SEEING CODE, is one thing,

but WRITING CODE is another.

Write it, Type it, Speak it, See it, Dream it.

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