PennyOnePage/penny.py (Page 1 of 1)

```
#!/usr/bin/env python

#-----------------------------------------------------------------------
# penny.py
# Author: Bob Dondero
#-----------------------------------------------------------------------

import time
import flask
import database

#-----------------------------------------------------------------------

app = flask.Flask(__name__, template_folder=’.’)

#-----------------------------------------------------------------------

def get_ampm():
    if time.strftime(’%p’) == "AM":
        return ’morning’
    return ’afternoon’

def get_current_time():
    return time.asctime(time.localtime())

#-----------------------------------------------------------------------

@app.route(’/’, methods=[’GET’])
@app.route(’/index’, methods=[’GET’])
def index():

    author = flask.request.args.get(’author’)
    if author is None:
        author = ’’
    author = author.strip()

    if author == ’’:
        books = []
    else:
        books = database.get_books(author) # Exception handling omitted

    html = flask.render_template(’index.html’,
        ampm=get_ampm(),
        current_time=get_current_time(),
        author=author,
        books=books)
    response = flask.make_response(html)
    return response
```

PennyOnePage/index.html (Page 1 of 1)

```
<!DOCTYPE html>
<html>

   <head>
      <title>Penny.com</title>
   </head>

   <body>
      <hr>
      Good {{ampm}} and welcome to <strong>Penny.com</strong>
      <hr>

      <h1>Author Search</h1>
      <form action="/index" method="get">
         Please enter an author name:
         <input type="text" name="author" value="{{author}}" autoFocus>
         <input type="submit" value="Go">
      </form>
      <hr>
      {% for book in books: %}
         {{book[’isbn’]}}:
         <strong>{{book[’author’]}}:</strong>:
         {{book[’title’]}}<br>
      {% endfor %}

      <hr>
      Date and time: {{current_time}}.<br>
      Created by <a href="https://www.cs.princeton.edu/˜rdondero">
      Bob Dondero</a>
      <hr>
</body>

</html>
```

PennyJavaScript/penny.py (Page 1 of 1)

```python
#!/usr/bin/env python

#-----------------------------------------------------------------------
# penny.py
# Author: Bob Dondero
#-----------------------------------------------------------------------

import flask
import database

#-----------------------------------------------------------------------

app = flask.Flask(__name__, template_folder=’.’)

#-----------------------------------------------------------------------

@app.route(’/’, methods=[’GET’])
@app.route(’/index’, methods=[’GET’])
def index():

    author = flask.request.args.get(’author’)
    if author is None:
        author = ’’
    author = author.strip()

    if author == ’’:
        books = []
    else:
        books = database.get_books(author) # Exception handling omitted

    html_code = flask.render_template(’index.html’,
        author=author,
        books=books)
    response = flask.make_response(html_code)
    return response
```

blank (Page 1 of 1)

```
This page is intentionally blank.
```

PennyJavaScript/index.html (Page 1 of 2)

```
<!DOCTYPE html>
<html>
   <head>
      <title>Penny.com</title>
   </head>

   <body>

      <hr>
      Good <span id="ampmSpan"></span> and welcome to
      <strong>Penny.com</strong>
      <hr>

      <h1>Author Search</h1>
      <form action="/index" method="get">
         Please enter an author name:
         <input type="text" name="author" value="{{author}}" autoFocus>
         <input type="submit" value="Go">
      </form>
      <hr>
      {% for book in books: %}
         {{book['isbn']}}:
         <strong>
         {{book['author']}}:
         </strong>
         {{book['title']}}<br>
      {% endfor %}

      <hr>
      Date and time: <span id="datetimeSpan"></span><br>
      Created by <a href="https://www.cs.princeton.edu/~rdondero">
      Bob Dondero</a>
      <hr>

      <script>

         'use strict';

         function getAmPm() {
            let dateTime = new Date();
            let hours = dateTime.getHours();
            let amPm = (hours < 12) ? 'morning': 'afternoon';
            let ampmSpan = document.getElementById('ampmSpan');
            ampmSpan.innerHTML = amPm;
         }

         function getDateTime() {
            let dateTime = new Date();
            let datetimeSpan = document.getElementById('datetimeSpan');
            datetimeSpan.innerHTML = dateTime.toLocaleString();
         }

         function setupHeader() {
            getAmPm();
            let apInterval = window.setInterval(getAmPm, 1000);
            window.addEventListener('beforeunload',
               function(e) {window.clearInterval(apInterval);})
         }

         function setupFooter() {
            getDateTime();
            let dtInterval = window.setInterval(getDateTime, 1000);
            window.addEventListener('beforeunload',
               function(e) {window.clearInterval(dtInterval);})
         }
```

PennyJavaScript/index.html (Page 2 of 2)

```

         function setup() {
            setupHeader();
            setupFooter();
         }

         document.addEventListener('DOMContentLoaded', setup);

      </script>
   </body>
</html>
```

PennyAjax1/penny.py (Page 1 of 1)

```python
#!/usr/bin/env python

#-----------------------------------------------------------------------
# penny.py
# Author: Bob Dondero
#-----------------------------------------------------------------------

import json
import flask
import database

#-----------------------------------------------------------------------

app = flask.Flask(__name__)

#-----------------------------------------------------------------------

@app.route('/', methods=['GET'])
@app.route('/index', methods=['GET'])
def index():

    return flask.send_file('index.html')

#-----------------------------------------------------------------------

@app.route('/searchresults', methods=['GET'])
def search_results():

    author = flask.request.args.get('author')
    if author is None:
        author = ''
    author = author.strip()

    if author == '':
        books = []
    else:
        books = database.get_books(author) # Exception handling omitted

    json_doc = json.dumps(books)
    response = flask.make_response(json_doc)
    response.headers['Content-Type'] = 'application/json'
    return response
```

blank (Page 1 of 1)

```
This page is intentionally blank.
```

PennyAjax1/index.html (Page 1 of 2)

```
<!DOCTYPE html>
<html>
   <head>
      <title>Penny.com</title>
   </head>

   <body>

      <hr>
      Good <span id="ampmSpan"></span> and welcome to
      <strong>Penny.com</strong>
      <hr>

      <h1>Author Search</h1>
      Please enter an author name:
      <input type="text" id="authorInput" autoFocus>
      <hr>
      <div id="resultsDiv"></div>

      <hr>
      Date and time: <span id="datetimeSpan"></span><br>
      Created by <a href="https://www.cs.princeton.edu/~rdondero">
      Bob Dondero</a>
      <hr>

      <script>

         ’use strict’;

         function getAmPm() {
            let dateTime = new Date();
            let hours = dateTime.getHours();
            let amPm = (hours < 12) ? ’morning’ : ’afternoon’;
            let ampmSpan = document.getElementById(’ampmSpan’);
            ampmSpan.innerHTML = amPm;
         }

         function getDateTime() {
            let dateTime = new Date();
            let datetimeSpan =
               document.getElementById(’datetimeSpan’);
            datetimeSpan.innerHTML = dateTime.toLocaleString();
         }

         function escape(s) {
            s = s.replace(’&’, ’&amp;’);
            s = s.replace(’<’, ’&lt;’);
            s = s.replace(’>’, ’&gt;’);
            s = s.replace(’"’, ’&quot;’);
            s = s.replace("’", ’&apos;’);
            return s;
         }

         function convertToHtml(books) {
            let html = ’’;
            for (let book of books) {
               html += escape(book.isbn) + ’: ’;
               html += ’<strong>’;
               html += escape(book.author);
               html += ’</strong>: ’;
               html += escape(book.title) + ’<br>’;
            }
            return html;
         }

```

PennyAjax1/index.html (Page 2 of 2)

```
         function handleResponse() {
            if (this.status !== 200) {
               alert(’Error: Failed to fetch data from server’);
               return;
            }
            let books = JSON.parse(this.response);
            let html = convertToHtml(books);
            let resultsDiv = document.getElementById(’resultsDiv’);
            resultsDiv.innerHTML = html;
         }

         function handleError() {
            alert(’Error: Failed to fetch data from server’);
         }

         function getResults() {
            let authorInput = document.getElementById(’authorInput’);
            let author = authorInput.value;
            let encodedAuthor = encodeURIComponent(author);
            let url = ’/searchresults?author=’ + encodedAuthor;
            let request = new XMLHttpRequest();
            request.onload = handleResponse;
            request.onerror = handleError;
            request.open(’GET’, url);
            request.send();
         }

         function setupHeader() {
            getAmPm();
            let apInterval = window.setInterval(getAmPm, 1000);
            window.addEventListener(’beforeunload’,
               function(e) {window.clearInterval(apInterval);})
         }

         function setupFooter() {
            getDateTime();
            let dtInterval = window.setInterval(getDateTime, 1000);
            window.addEventListener(’beforeunload’,
               function(e) {window.clearInterval(dtInterval);})
         }

         function setup() {
            setupHeader();
            setupFooter();
            let authorInput = document.getElementById(’authorInput’);
            authorInput.addEventListener(’input’, getResults);
         }

         document.addEventListener(’DOMContentLoaded’, setup);

      </script>
   </body>
</html>
```

PennyAjax2/index.html (Page 1 of 2)

```
<!DOCTYPE html>
<html>
   <head>
      <title>Penny.com</title>
   </head>

   <body>

      <hr>
      Good <span id="ampmSpan"></span> and welcome to
      <strong>Penny.com</strong>
      <hr>

      <h1>Author Search</h1>
      Please enter an author name:
      <input type="text" id="authorInput" autoFocus>
      <hr>
      <div id="resultsDiv"></div>

      <hr>
      Date and time: <span id="datetimeSpan"></span><br>
      Created by <a href="https://www.cs.princeton.edu/˜rdondero">
      Bob Dondero</a>
      <hr>

      <script>

         ’use strict’;

         function getAmPm() {
            let dateTime = new Date();
            let hours = dateTime.getHours();
            let amPm = (hours < 12) ? ’morning’ : ’afternoon’;
            let ampmSpan = document.getElementById(’ampmSpan’);
            ampmSpan.innerHTML = amPm;
         }

         function getDateTime() {
            let dateTime = new Date();
            let datetimeSpan =
               document.getElementById(’datetimeSpan’);
            datetimeSpan.innerHTML = dateTime.toLocaleString();
         }

         function escape(s) {
            s = s.replace(’&’, ’&amp;’);
            s = s.replace(’<’, ’&lt;’);
            s = s.replace(’>’, ’&gt;’);
            s = s.replace(’"’, ’&quot;’);
            s = s.replace("’", ’&apos;’);
            return s;
         }

         function convertToHtml(books) {
            let html = ’’;
            for (let book of books) {
               html += escape(book.isbn) + ’: ’;
               html += ’<strong>’;
               html += escape(book.author);
               html += ’</strong>: ’;
               html += escape(book.title) + ’<br>’;
            }
            return html;
         }

```

PennyAjax2/index.html (Page 2 of 2)

```
         function handleResponse() {
            if (this.status !== 200) {
               alert(’Error: Failed to fetch data from server’);
               return;
            }
            let books = JSON.parse(this.response);
            let html = convertToHtml(books);
            let resultsDiv = document.getElementById(’resultsDiv’);
            resultsDiv.innerHTML = html;
         }

         function handleError() {
            alert(’Error: Failed to fetch data from server’);
         }

         let request = null;

         function getResults() {
            let authorInput = document.getElementById(’authorInput’);
            let author = authorInput.value;
            let encodedAuthor = encodeURIComponent(author);
            let url = ’/searchresults?author=’ + encodedAuthor;
            if (request !== null)
               request.abort();
            request = new XMLHttpRequest();
            request.onload = handleResponse;
            request.onerror = handleError;
            request.open(’GET’, url);
            request.send();
         }

         function setupHeader() {
            getAmPm();
            let apInterval = window.setInterval(getAmPm, 1000);
            window.addEventListener(’beforeunload’,
               function(e) {window.clearInterval(apInterval);})
         }

         function setupFooter() {
            getDateTime();
            let dtInterval = window.setInterval(getDateTime, 1000);
            window.addEventListener(’beforeunload’,
               function(e) {window.clearInterval(dtInterval);})
         }

         function setup() {
            setupHeader();
            setupFooter();
            let authorInput = document.getElementById(’authorInput’);
            authorInput.addEventListener(’input’, getResults);
         }

         document.addEventListener(’DOMContentLoaded’, setup);

      </script>
   </body>
</html>
```

PennyAjax3/index.html (Page 1 of 2)

```
<!DOCTYPE html>
<html>
   <head>
      <title>Penny.com</title>
   </head>

   <body>

      <hr>
      Good <span id="ampmSpan"></span> and welcome to
      <strong>Penny.com</strong>
      <hr>

      <h1>Author Search</h1>
      Please enter an author name:
      <input type="text" id="authorInput" autoFocus>
      <hr>
      <div id="resultsDiv"></div>

      <hr>
      Date and time: <span id="datetimeSpan"></span><br>
      Created by <a href="https://www.cs.princeton.edu/˜rdondero">
      Bob Dondero</a>
      <hr>

      <script>

         ’use strict’;

         function getAmPm() {
            let dateTime = new Date();
            let hours = dateTime.getHours();
            let amPm = (hours < 12) ? ’morning’ : ’afternoon’;
            let ampmSpan = document.getElementById(’ampmSpan’);
            ampmSpan.innerHTML = amPm;
         }

         function getDateTime() {
            let dateTime = new Date();
            let datetimeSpan =
               document.getElementById(’datetimeSpan’);
            datetimeSpan.innerHTML = dateTime.toLocaleString();
         }

         function escape(s) {
            s = s.replace(’&’, ’&amp;’);
            s = s.replace(’<’, ’&lt;’);
            s = s.replace(’>’, ’&gt;’);
            s = s.replace(’"’, ’&quot;’);
            s = s.replace("’", ’&apos;’);
            return s;
         }

         function convertToHtml(books) {
            let html = ’’;
            for (let book of books) {
               html += escape(book.isbn) + ’: ’;
               html += ’<strong>’;
               html += escape(book.author);
               html += ’</strong>: ’;
               html += escape(book.title) + ’<br>’;
            }
            return html;
         }

```

PennyAjax3/index.html (Page 2 of 2)

```
         function handleResponse() {
            if (this.status !== 200) {
               alert(’Error: Failed to fetch data from server’);
               return;
            }
            let books = JSON.parse(this.response);
            let html = convertToHtml(books);
            let resultsDiv = document.getElementById(’resultsDiv’);
            resultsDiv.innerHTML = html;
         }

         function handleError() {
            alert(’Error: Failed to fetch data from server’);
         }

         let request = null;

         function getResults() {
            let authorInput = document.getElementById(’authorInput’);
            let author = authorInput.value;
            let encodedAuthor = encodeURIComponent(author);
            let url = ’/searchresults?author=’ + encodedAuthor;
            if (request !== null)
               request.abort();
            request = new XMLHttpRequest();
            request.onload = handleResponse;
            request.onerror = handleError;
            request.open(’GET’, url);
            request.send();
         }

         let timer = null;

         function debouncedGetResults() {
            clearTimeout(timer);
            timer = window.setTimeout(getResults, 500);
         }

         function setupHeader() {
            getAmPm();
            let apInterval = window.setInterval(getAmPm, 1000);
            window.addEventListener(’beforeunload’,
               function(e) {window.clearInterval(apInterval);})
         }

         function setupFooter() {
            getDateTime();
            let dtInterval = window.setInterval(getDateTime, 1000);
            window.addEventListener(’beforeunload’,
               function(e) {window.clearInterval(dtInterval);})
         }

         function setup() {
            setupHeader();
            setupFooter();
            let authorInput = document.getElementById(’authorInput’);
            authorInput.addEventListener(’input’, debouncedGetResults);
         }

         document.addEventListener(’DOMContentLoaded’, setup);

      </script>
   </body>
</html>
```

PennyAjax4/index.html (Page 1 of 2)

```
<!DOCTYPE html>
<html>
   <head>
      <title>Penny.com</title>
   </head>

   <body>

      <hr>
      Good <span id="ampmSpan"></span> and welcome to
      <strong>Penny.com</strong>
      <hr>

      <h1>Author Search</h1>
      Please enter an author name:
      <input type="text" id="authorInput" autoFocus>
      <hr>
      <div id="resultsDiv"></div>

      <hr>
      Date and time: <span id="datetimeSpan"></span><br>
      Created by <a href="https://www.cs.princeton.edu/~rdondero">
      Bob Dondero</a>
      <hr>

      <script src=
         "https://cdn.jsdelivr.net/npm/mustache@4.2.0/mustache.min.js">
      </script>

      <!-- <script src="/static/mustache.min.js"></script> -->

      <script>

         'use strict';

         function getAmPm() {
            let dateTime = new Date();
            let hours = dateTime.getHours();
            let amPm = (hours < 12) ? 'morning' : 'afternoon';
            let ampmSpan = document.getElementById('ampmSpan');
            ampmSpan.innerHTML = amPm;
         }

         function getDateTime() {
            let dateTime = new Date();
            let datetimeSpan =
               document.getElementById('datetimeSpan');
            datetimeSpan.innerHTML = dateTime.toLocaleString();
         }

         function convertToHtml(books) {
            let template = `
               {{#books}}
                  {{isbn}}:
                  <strong>{{author}}</strong>:
                  {{title}}
                  <br>
               {{/books}}
            `;
            let map = {books: books};
            let html = Mustache.render(template, map);
            return html;
         }

         function handleResponse() {
```

PennyAjax4/index.html (Page 2 of 2)

```
            if (this.status !== 200) {
               alert('Error: Failed to fetch data from server');
               return;
            }
            let books = JSON.parse(this.response);
            let html = convertToHtml(books);
            let resultsDiv = document.getElementById('resultsDiv');
            resultsDiv.innerHTML = html;
         }

         function handleError() {
            alert('Error: Failed to fetch data from server');
         }

         let request = null;

         function getResults() {
            let authorInput = document.getElementById('authorInput');
            let author = authorInput.value;
            let encodedAuthor = encodeURIComponent(author);
            let url = '/searchresults?author=' + encodedAuthor;
            if (request !== null)
               request.abort();
            request = new XMLHttpRequest();
            request.onload = handleResponse;
            request.onerror = handleError;
            request.open('GET', url);
            request.send();
         }

         let timer = null;

         function debouncedGetResults() {
            clearTimeout(timer);
            timer = window.setTimeout(getResults, 500);
         }

         function setupHeader() {
            getAmPm();
            let apInterval = window.setInterval(getAmPm, 1000);
            window.addEventListener('beforeunload',
               function(e) {window.clearInterval(apInterval);})
         }

         function setupFooter() {
            getDateTime();
            let dtInterval = window.setInterval(getDateTime, 1000);
            window.addEventListener('beforeunload',
               function(e) {window.clearInterval(dtInterval);})
         }

         function setup() {
            setupHeader();
            setupFooter();
            let authorInput = document.getElementById('authorInput');
            authorInput.addEventListener('input', debouncedGetResults);
         }

         document.addEventListener('DOMContentLoaded', setup);

      </script>
   </body>
</html>
```

PennyAjaxFetch1/index.html (Page 1 of 2)

```
<!DOCTYPE html>
<html>
   <head>
      <title>Penny.com</title>
   </head>

   <body>

      <hr>
      Good <span id="ampmSpan"></span> and welcome to
      <strong>Penny.com</strong>
      <hr>

      <h1>Author Search</h1>
      Please enter an author name:
      <input type="text" id="authorInput" autoFocus>
      <hr>
      <div id="resultsDiv"></div>

      <hr>
      Date and time: <span id="datetimeSpan"></span><br>
      Created by <a href="https://www.cs.princeton.edu/~rdondero">
      Bob Dondero</a>
      <hr>

      <script src=
         "https://cdn.jsdelivr.net/npm/mustache@4.2.0/mustache.min.js">
      </script>

      <script>

         ’use strict’;

         function getAmPm() {
            let dateTime = new Date();
            let hours = dateTime.getHours();
            let amPm = (hours < 12) ? ’morning’ : ’afternoon’;
            let ampmSpan = document.getElementById(’ampmSpan’);
            ampmSpan.innerHTML = amPm;
         }

         function getDateTime() {
            let dateTime = new Date();
            let datetimeSpan =
               document.getElementById(’datetimeSpan’);
            datetimeSpan.innerHTML = dateTime.toLocaleString();
         }

         function getText(response) {
            if (! response.ok)
               throw new Error();
            return response.text();
         }

         function convertToHtml(books) {
            let template = `
               {{#books}}
                  {{isbn}}:
                  <strong>{{author}}</strong>:
                  {{title}}
                  <br>
               {{/books}}
            `;
            let map = {books: books};
            let html = Mustache.render(template, map);
```

PennyAjaxFetch1/index.html (Page 2 of 2)

```
            return html;
         }

         function updateResultsDiv(text) {
            let books = JSON.parse(text);
            let html = convertToHtml(books);
            let resultsDiv = document.getElementById(’resultsDiv’);
            resultsDiv.innerHTML = html;
         }

         function handleError(err) {
            if (err.name !== ’AbortError’)
               alert(’Error: Failed to fetch data from server’);
         }

         let controller = null;

         function getResults() {
            let authorInput = document.getElementById(’authorInput’);
            let author = authorInput.value;
            let encodedAuthor = encodeURIComponent(author);
            let url = ’/searchresults?author=’ + encodedAuthor;
            if (controller !== null)
               controller.abort();
            controller = new AbortController();
            fetch(url, {signal: controller.signal})
               .then(getText)
               .then(updateResultsDiv)
               .catch(handleError);
         }

         let timer = null;

         function debouncedGetResults() {
            clearTimeout(timer);
            timer = setTimeout(getResults, 500);
         }

         function setupHeader() {
            getAmPm();
            let apInterval = window.setInterval(getAmPm, 1000);
            window.addEventListener(’beforeunload’,
               function(e) {window.clearInterval(apInterval);})
         }

         function setupFooter() {
            getDateTime();
            let dtInterval = window.setInterval(getDateTime, 1000);
            window.addEventListener(’beforeunload’,
               function(e) {window.clearInterval(dtInterval);})
         }
         function setup() {
            setupHeader();
            setupFooter();
            let authorInput = document.getElementById(’authorInput’);
            authorInput.addEventListener(’input’, debouncedGetResults);
         }

         document.addEventListener(’DOMContentLoaded’, setup);

      </script>
   </body>
</html>
```

PennyAjaxFetch2/index.html (Page 1 of 2)

```
<!DOCTYPE html>
<html>
   <head>
      <title>Penny.com</title>
   </head>

   <body>

      <hr>
      Good <span id="ampmSpan"></span> and welcome to
      <strong>Penny.com</strong>
      <hr>

      <h1>Author Search</h1>
      Please enter an author name:
      <input type="text" id="authorInput" autoFocus>
      <hr>
      <div id="resultsDiv"></div>

      <hr>
      Date and time: <span id="datetimeSpan"></span><br>
      Created by <a href="https://www.cs.princeton.edu/˜rdondero">
      Bob Dondero</a>
      <hr>

      <script src=
         "https://cdn.jsdelivr.net/npm/mustache@4.2.0/mustache.min.js">
      </script>

      <script>

         ’use strict’;

         function getAmPm() {
            let dateTime = new Date();
            let hours = dateTime.getHours();
            let amPm = (hours < 12) ? ’morning’ : ’afternoon’;
            let ampmSpan = document.getElementById(’ampmSpan’);
            ampmSpan.innerHTML = amPm;
         }

         function getDateTime() {
            let dateTime = new Date();
            let datetimeSpan =
               document.getElementById(’datetimeSpan’);
            datetimeSpan.innerHTML = dateTime.toLocaleString();
         }

         function convertToHtml(books) {
            let template = `
               {{#books}}
                  {{isbn}}:
                  <strong>{{author}}</strong>:
                  {{title}}
                  <br>
               {{/books}}
            `;
            let map = {books: books};
            let html = Mustache.render(template, map);
            return html;
         }

         let controller = null;

         async function getResults() {
```

PennyAjaxFetch2/index.html (Page 2 of 2)

```
            let authorInput = document.getElementById(’authorInput’);
            let author = authorInput.value;
            let encodedAuthor = encodeURIComponent(author);
            let url = ’/searchresults?author=’ + encodedAuthor;
            if (controller !== null)
               controller.abort();
            controller = new AbortController();
            try {
               let response =
                  await fetch(url, {signal: controller.signal});
               if (! response.ok)
                  throw new Error();
               let text = await response.text();
               let books = JSON.parse(text);
               let html = convertToHtml(books);
               let resultsDiv = document.getElementById(’resultsDiv’);
               resultsDiv.innerHTML = html;
            }
            catch (err) {
               if (err.name !== ’AbortError’)
                  alert(’Error: Failed to fetch data from server’);
            }
         }

         let timer = null;

         function debouncedGetResults() {
            clearTimeout(timer);
            timer = setTimeout(getResults, 500);
         }

         function setupHeader() {
            getAmPm();
            let apInterval = window.setInterval(getAmPm, 1000);
            window.addEventListener(’beforeunload’,
               function(e) {window.clearInterval(apInterval);})
         }

         function setupFooter() {
            getDateTime();
            let dtInterval = window.setInterval(getDateTime, 1000);
            window.addEventListener(’beforeunload’,
               function(e) {window.clearInterval(dtInterval);})
         }

         function setup() {
            setupHeader();
            setupFooter();
            let authorInput = document.getElementById(’authorInput’);
            authorInput.addEventListener(’input’, debouncedGetResults);
         }

         document.addEventListener(’DOMContentLoaded’, setup);

      </script>
   </body>
</html>
```