

---

```
1  # Greet user
2
3  from flask import Flask, render_template, request
4
5  app = Flask(__name__)
6
7
8  @app.route("/")
9  def index():
10     return render_template("index.html", name=request.args.get("name", "world"))
```

1 Flask

```
1 <!DOCTYPE html>
2
3 <html lang="en">
4   <head>
5     <meta name="viewport" content="initial-scale=1, width=device-width">
6     <title>hello</title>
7   </head>
8   <body>
9     hello, {{ name }}
10  </body>
11 </html>
```

---

```
1  # Greet user via a form using GET
2
3  from flask import Flask, render_template, request
4
5  app = Flask(__name__)
6
7
8  @app.route("/")
9  def index():
10     return render_template("index.html")
11
12
13 @app.route("/greet")
14 def greet():
15     return render_template("greet.html", name=request.args.get("name", "world"))
```

1 Flask

```
1 <!DOCTYPE html>
2
3 <html lang="en">
4   <head>
5     <meta name="viewport" content="initial-scale=1, width=device-width">
6     <title>hello</title>
7   </head>
8   <body>
9     hello, {{ name }}
10  </body>
11 </html>
```

```
1 <!DOCTYPE html>
2
3 <html lang="en">
4   <head>
5     <meta name="viewport" content="initial-scale=1, width=device-width">
6     <title>hello</title>
7   </head>
8   <body>
9     <form action="/greet" method="get">
10      <input autocomplete="off" autofocus name="name" placeholder="Name" type="text">
11      <input type="submit">
12    </form>
13  </body>
14 </html>
```

---

```
1  # Greets user via a form using GET and a layout
2
3  from flask import Flask, render_template, request
4
5  app = Flask(__name__)
6
7
8  @app.route("/")
9  def index():
10     return render_template("index.html")
11
12
13 @app.route("/greet")
14 def greet():
15     return render_template("greet.html", name=request.args.get("name", "world"))
```

1 Flask

---

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     hello, {{ name }}
5
6
7 {% endblock %}
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4
5     <form action="/greet" method="get">
6         <input autocomplete="off" autofocus name="name" placeholder="Name" type="text">
7         <input type="submit">
8     </form>
9
10 {% endblock %}
```

```
1 <!DOCTYPE html>
2
3 <html lang="en">
4   <head>
5     <meta name="viewport" content="initial-scale=1, width=device-width">
6     <title>hello</title>
7   </head>
8   <body>
9     {% block body %}{% endblock %}
10  </body>
11 </html>
```

```
1  # Greet user via a form using POST and a layout
2
3  from flask import Flask, render_template, request
4
5  app = Flask(__name__)
6
7
8  @app.route("/")
9  def index():
10     return render_template("index.html")
11
12
13 @app.route("/greet", methods=["POST"])
14 def greet():
15     return render_template("greet.html", name=request.form.get("name", "world"))
```

1 Flask

---

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     hello, {{ name }}
5
6
7 {% endblock %}
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4
5     <form action="/greet" method="post">
6         <input autocomplete="off" autofocus name="name" placeholder="Name" type="text">
7         <input type="submit">
8     </form>
9
10 {% endblock %}
```

```
1 <!DOCTYPE html>
2
3 <html lang="en">
4   <head>
5     <meta name="viewport" content="initial-scale=1, width=device-width">
6     <title>hello</title>
7   </head>
8   <body>
9     {% block body %}{% endblock %}
10  </body>
11 </html>
```

```
1  # Greet user via a form using POST, a layout, and a single route
2
3  from flask import Flask, render_template, request
4
5  app = Flask(__name__)
6
7
8  @app.route("/", methods=["GET", "POST"])
9  def index():
10     if request.method == "POST":
11         return render_template("greet.html", name=request.form.get("name", "world"))
12     return render_template("index.html")
```

1 Flask

---

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     hello, {{ name }}
5
6
7 {% endblock %}
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4
5     <form action="/" method="post">
6         <input autocomplete="off" autofocus name="name" placeholder="Name" type="text">
7         <input type="submit">
8     </form>
9
10 {% endblock %}
```

```
1 <!DOCTYPE html>
2
3 <html lang="en">
4   <head>
5     <meta name="viewport" content="initial-scale=1, width=device-width">
6     <title>hello</title>
7   </head>
8   <body>
9     {% block body %}{% endblock %}
10  </body>
11 </html>
```

```
1  # Implements a registration form using a select menu
2
3  from flask import Flask, render_template, request
4
5  app = Flask(__name__)
6
7  SPORTS = [
8      "Dodgeball",
9      "Flag Football",
10     "Soccer",
11     "Volleyball",
12     "Ultimate Frisbee"
13 ]
14
15 @app.route("/")
16 def index():
17     return render_template("index.html", sports=SPORTS)
18
19
20 @app.route("/register", methods=["POST"])
21 def register():
22
23     # Validate submission
24     if not request.form.get("name") or request.form.get("sport") not in SPORTS:
25         return render_template("failure.html")
26
27     # Confirm registration
28     return render_template("success.html")
```

1 Flask

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     You are not registered!
5 {% endblock %}
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     <h1>Register</h1>
5     <form action="/register" method="post">
6         <input autocomplete="off" autofocus name="name" placeholder="Name" type="text">
7         <select name="sport">
8             <option disabled selected value="">Sport</option>
9             {% for sport in sports %}
10                <option value="{{ sport }}">{{ sport }}</option>
11            {% endfor %}
12        </select>
13        <input type="submit" value="Register">
14    </form>
15 {% endblock %}
```

```
1 <!DOCTYPE html>
2
3 <html lang="en">
4   <head>
5     <meta name="viewport" content="initial-scale=1, width=device-width">
6     <title>froshims</title>
7   </head>
8   <body>
9     {% block body %}{% endblock %}
10  </body>
11 </html>
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     You are registered!
5 {% endblock %}
```

```
1  # Implements a registration form using checkboxes
2
3  from flask import Flask, render_template, request
4
5  app = Flask(__name__)
6
7  SPORTS = [
8      "Dodgeball",
9      "Flag Football",
10     "Soccer",
11     "Volleyball",
12     "Ultimate Frisbee"
13 ]
14
15 @app.route("/")
16 def index():
17     return render_template("index.html", sports=SPORTS)
18
19
20 @app.route("/register", methods=["POST"])
21 def register():
22
23     # Validate submission
24     if not request.form.get("name") or request.form.get("sport") not in SPORTS:
25         return render_template("failure.html")
26
27     # Confirm registration
28     return render_template("success.html")
```

1 Flask

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     You are not registered!
5 {% endblock %}
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     <h1>Register</h1>
5     <form action="/register" method="post">
6         <input autocomplete="off" autofocus name="name" placeholder="Name" type="text">
7         {% for sport in sports %}
8             <input name="sport" type="checkbox" value="{{ sport }}"> {{ sport }}
9         {% endfor %}
10        <input type="submit" value="Register">
11    </form>
12 {% endblock %}
```

```
1 <!DOCTYPE html>
2
3 <html lang="en">
4   <head>
5     <meta name="viewport" content="initial-scale=1, width=device-width">
6     <title>froshims</title>
7   </head>
8   <body>
9     {% block body %}{% endblock %}
10  </body>
11 </html>
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     You are registered!
5 {% endblock %}
```

```
1  # Implements a registration form using radio buttons
2
3  from flask import Flask, render_template, request
4
5  app = Flask(__name__)
6
7  SPORTS = [
8      "Dodgeball",
9      "Flag Football",
10     "Soccer",
11     "Volleyball",
12     "Ultimate Frisbee"
13 ]
14
15 @app.route("/")
16 def index():
17     return render_template("index.html", sports=SPORTS)
18
19
20 @app.route("/register", methods=["POST"])
21 def register():
22
23     # Validate submission
24     if not request.form.get("name") or request.form.get("sport") not in SPORTS:
25         return render_template("failure.html")
26
27     # Confirm registration
28     return render_template("success.html")
```

1 Flask

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     You are not registered!
5 {% endblock %}
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     <h1>Register</h1>
5     <form action="/register" method="post">
6         <input autocomplete="off" autofocus name="name" placeholder="Name" type="text">
7         {% for sport in sports %}
8             <input name="sport" type="radio" value="{{ sport }}"> {{ sport }}
9         {% endfor %}
10        <input type="submit" value="Register">
11    </form>
12 {% endblock %}
```

```
1 <!DOCTYPE html>
2
3 <html lang="en">
4   <head>
5     <meta name="viewport" content="initial-scale=1, width=device-width">
6     <title>froshims</title>
7   </head>
8   <body>
9     {% block body %}{% endblock %}
10  </body>
11 </html>
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     You are registered!
5 {% endblock %}
```

```
1  # Implements a registration form, storing registrants in a dictionary, with error messages
2
3  from flask import Flask, redirect, render_template, request
4
5  app = Flask(__name__)
6
7  REGISTRANTS = {}
8
9  SPORTS = [
10     "Dodgeball",
11     "Flag Football",
12     "Soccer",
13     "Volleyball",
14     "Ultimate Frisbee"
15 ]
16
17 @app.route("/")
18 def index():
19     return render_template("index.html", sports=SPORTS)
20
21
22 @app.route("/register", methods=["POST"])
23 def register():
24
25     # Validate submission
26     name = request.form.get("name")
27     if not name:
28         return render_template("error.html", message="Missing name")
29     sport = request.form.get("sport")
30     if not sport:
31         return render_template("error.html", message="Missing sport")
32     if sport not in SPORTS:
33         return render_template("error.html", message="Invalid sport")
34
35     # Remember registrant
36     REGISTRANTS[name] = sport
37
38     # Confirm registration
39     return redirect("/registrants")
40
41
42 @app.route("/registrants")
```

---

```
43 def registrants():  
44     return render_template("registrants.html", registrants=REGISTRANTS)
```

1 Flask

---

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     <h1>Error</h1>
5     <p>{{ message }}</p>
6     
7 {% endblock %}
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     <h1>Register</h1>
5     <form action="/register" method="post">
6         <input autocomplete="off" autofocus name="name" placeholder="Name" type="text">
7         {% for sport in sports %}
8             <input name="sport" type="radio" value="{{ sport }}"> {{ sport }}
9         {% endfor %}
10        <input type="submit" value="Register">
11    </form>
12 {% endblock %}
```

```
1 <!DOCTYPE html>
2
3 <html lang="en">
4   <head>
5     <meta name="viewport" content="initial-scale=1, width=device-width">
6     <title>froshims</title>
7   </head>
8   <body>
9     {% block body %}{% endblock %}
10  </body>
11 </html>
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     <h1>Registrants</h1>
5     <table>
6         <thead>
7             <tr>
8                 <th>Name</th>
9                 <th>Sport</th>
10            </tr>
11        </thead>
12        <tbody>
13            {% for name in registrants %}
14                <tr>
15                    <td>{{ name }}</td>
16                    <td>{{ registrants[name] }}</td>
17                </tr>
18            {% endfor %}
19        </tbody>
20    </table>
21 {% endblock %}
```

```
1  # Implements a registration form, storing registrants in a SQLite database
2
3  from cs50 import SQL
4  from flask import Flask, redirect, render_template, request
5
6  app = Flask(__name__)
7
8  db = SQL("sqlite:///froshims.db")
9
10 SPORTS = [
11     "Dodgeball",
12     "Flag Football",
13     "Soccer",
14     "Volleyball",
15     "Ultimate Frisbee"
16 ]
17
18 @app.route("/")
19 def index():
20     return render_template("index.html", sports=SPORTS)
21
22
23 @app.route("/deregister", methods=["POST"])
24 def deregister():
25
26     # Forget registrant
27     id = request.form.get("id")
28     if id:
29         db.execute("DELETE FROM registrants WHERE id = ?", id)
30     return redirect("/registrants")
31
32
33 @app.route("/register", methods=["POST"])
34 def register():
35
36     # Validate submission
37     name = request.form.get("name")
38     sport = request.form.get("sport")
39     if not name or sport not in SPORTS:
40         return render_template("failure.html")
41
42     # Remember registrant
```

---

```
43     db.execute("INSERT INTO registrants (name, sport) VALUES(?, ?)", name, sport)
44
45     # Confirm registration
46     return redirect("/registrants")
47
48
49 @app.route("/registrants")
50 def registrants():
51     registrants = db.execute("SELECT * FROM registrants")
52     return render_template("registrants.html", registrants=registrants)
```

- 1 cs50
- 2 Flask

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     You are not registered!
5 {% endblock %}
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     <h1>Register</h1>
5     <form action="/register" method="post">
6         <input autocomplete="off" autofocus name="name" placeholder="Name" type="text">
7         {% for sport in sports %}
8             <input name="sport" type="radio" value="{{ sport }}"> {{ sport }}
9         {% endfor %}
10        <input type="submit" value="Register">
11    </form>
12 {% endblock %}
```

```
1 <!DOCTYPE html>
2
3 <html lang="en">
4   <head>
5     <meta name="viewport" content="initial-scale=1, width=device-width">
6     <title>froshims</title>
7   </head>
8   <body>
9     {% block body %}{% endblock %}
10  </body>
11 </html>
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     <h1>Registrants</h1>
5     <table>
6         <thead>
7             <tr>
8                 <th>Name</th>
9                 <th>Sport</th>
10                <th></th>
11            </tr>
12        </thead>
13        <tbody>
14            {% for registrant in registrants %}
15                <tr>
16                    <td>{{ registrant.name }}</td>
17                    <td>{{ registrant.sport }}</td>
18                    <td>
19                        <form action="/deregister" method="post">
20                            <input name="id" type="hidden" value="{{ registrant.id }}">
21                            <input type="submit" value="Deregister">
22                        </form>
23                    </td>
24                </tr>
25            {% endfor %}
26        </tbody>
27    </table>
28 {% endblock %}
```

```
1  # Implements a registration form, confirming registration via email
2
3  import os
4  import re
5
6  from flask import Flask, render_template, request
7  from flask_mail import Mail, Message
8
9  app = Flask(__name__)
10 app.config["MAIL_DEFAULT_SENDER"] = os.getenv("MAIL_DEFAULT_SENDER")
11 app.config["MAIL_PASSWORD"] = os.getenv("MAIL_PASSWORD")
12 app.config["MAIL_PORT"] = 587
13 app.config["MAIL_SERVER"] = "smtp.gmail.com"
14 app.config["MAIL_USE_TLS"] = True
15 app.config["MAIL_USERNAME"] = os.getenv("MAIL_USERNAME")
16 mail = Mail(app)
17
18 SPORTS = [
19     "Dodgeball",
20     "Flag Football",
21     "Soccer",
22     "Volleyball",
23     "Ultimate Frisbee"
24 ]
25
26 @app.route("/")
27 def index():
28     return render_template("index.html", sports=SPORTS)
29
30
31 @app.route("/register", methods=["POST"])
32 def register():
33
34     # Validate submission
35     name = request.form.get("name")
36     email = request.form.get("email")
37     sport = request.form.get("sport")
38     if not name or not email or sport not in SPORTS:
39         return render_template("failure.html")
40
41     # Send email
42     message = Message("You are registered!", recipients=[email])
```

---

```
43     mail.send(message)
44
45     # Confirm registration
46     return render_template("success.html")
```

- 1 Flask
- 2 Flask-Mail

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     You are not registered!
5 {% endblock %}
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     <h1>Register</h1>
5     <form action="/register" method="post">
6         <input autocomplete="off" autofocus name="name" placeholder="Name" type="text">
7         <input autocomplete="off" name="email" placeholder="Email" type="email">
8         {% for sport in sports %}
9             <input name="sport" type="radio" value="{{ sport }}"> {{ sport }}
10        {% endfor %}
11        <input type="submit" value="Register">
12    </form>
13 {% endblock %}
```

```
1 <!DOCTYPE html>
2
3 <html lang="en">
4   <head>
5     <meta name="viewport" content="initial-scale=1, width=device-width">
6     <title>froshims</title>
7   </head>
8   <body>
9     {% block body %}{% endblock %}
10  </body>
11 </html>
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     You are registered!
5 {% endblock %}
```

```
1 from flask import Flask, redirect, render_template, request, session
2 from flask_session import Session
3
4 # Configure app
5 app = Flask(__name__)
6
7 # Configure sessions
8 app.config["SESSION_PERMANENT"] = False
9 app.config["SESSION_TYPE"] = "filesystem"
10 Session(app)
11
12
13 @app.route("/")
14 def index():
15     if not session.get("name"):
16         return redirect("/login")
17     return render_template("index.html")
18
19
20 @app.route("/login", methods=["GET", "POST"])
21 def login():
22     if request.method == "POST":
23         session["name"] = request.form.get("name")
24         return redirect("/")
25     return render_template("login.html")
26
27
28 @app.route("/logout")
29 def logout():
30     session["name"] = None
31     return redirect("/")
```

- 1 Flask
- 2 Flask-Session

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4
5     {% if session.name %}
6         You are logged in as {{ session.name }}. <a href="/logout">Log out</a>.
7     {% else %}
8         You are not logged in. <a href="/login">Log in</a>.
9     {% endif %}
10
11 {% endblock %}
```

```
1 <!DOCTYPE html>
2
3 <html>
4   <head>
5     <meta name="viewport" content="initial-scale=1, width=device-width"/>
6     <title>store</title>
7   </head>
8   <body>
9     {% block body %}{% endblock %}
10  </body>
11 </html>
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4
5     <form action="/login" method="post">
6         <input autocomplete="off" autofocus name="name" placeholder="Name" type="text">
7         <input type="submit" value="Log In">
8     </form>
9
10 {% endblock %}
```

```
1 from cs50 import SQL
2 from flask import Flask, redirect, render_template, request, session
3 from flask_session import Session
4
5 # Configure app
6 app = Flask(__name__)
7
8 # Connect to database
9 db = SQL("sqlite:///store.db")
10
11 # Configure sessions
12 app.config["SESSION_PERMANENT"] = False
13 app.config["SESSION_TYPE"] = "filesystem"
14 Session(app)
15
16
17 @app.route("/")
18 def index():
19     books = db.execute("SELECT * FROM books")
20     return render_template("books.html", books=books)
21
22
23 @app.route("/cart", methods=["GET", "POST"])
24 def cart():
25
26     # Ensure cart exists
27     if "cart" not in session:
28         session["cart"] = []
29
30     # POST
31     if request.method == "POST":
32         id = request.form.get("id")
33         if id:
34             session["cart"].append(id)
35         return redirect("/cart")
36
37     # GET
38     books = db.execute("SELECT * FROM books WHERE id IN (?)", session["cart"])
39     return render_template("cart.html", books=books)
```

- 1 Flask
- 2 Flask-Session

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4
5     <h1>Books</h1>
6     {% for book in books %}
7         <h2>{{ book.title }}</h2>
8         <form action="/cart" method="post">
9             <input name="id" type="hidden" value="{{ book.id }}">
10            <input type="submit" value="Add to Cart">
11        </form>
12    {% endfor %}
13
14 {% endblock %}
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4
5     <h1>Cart</h1>
6     <ol>
7         {% for book in books %}
8             <li>{{ book.title }}</li>
9         {% endfor %}
10    </ol>
11
12 {% endblock %}
```

```
1 <!DOCTYPE html>
2
3 <html>
4   <head>
5     <meta name="viewport" content="initial-scale=1, width=device-width"/>
6     <title>store</title>
7   </head>
8   <body>
9     {% block body %}{% endblock %}
10  </body>
11 </html>
```

```
1  # Searches for shows
2
3  from cs50 import SQL
4  from flask import Flask, render_template, request
5
6  app = Flask(__name__)
7
8  db = SQL("sqlite:///shows.db")
9
10
11 @app.route("/")
12 def index():
13     return render_template("index.html")
14
15
16 @app.route("/search")
17 def search():
18     shows = db.execute("SELECT * FROM shows WHERE title LIKE ?", "%" + request.args.get("q") + "%")
19     return render_template("search.html", shows=shows)
```

- 1 cs50
- 2 Flask

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     <form action="/search" method="get">
5         <input autocomplete="off" autofocus name="q" placeholder="Query" type="search">
6         <input type="submit" value="Search">
7     </form>
8 {% endblock %}
```

```
1 <!DOCTYPE html>
2
3 <html lang="en">
4   <head>
5     <meta name="viewport" content="initial-scale=1, width=device-width">
6     <title>shows</title>
7   </head>
8   <body>
9     {% block body %}{% endblock %}
10  </body>
11 </html>
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4     <ul>
5         {% for show in shows %}
6             <li>{{ show.title }}</li>
7         {% endfor %}
8     </ul>
9 {% endblock %}
```

```
1  # Searches for shows using Ajax
2
3  from cs50 import SQL
4  from flask import Flask, render_template, request
5
6  app = Flask(__name__)
7
8  db = SQL("sqlite:///shows.db")
9
10
11 @app.route("/")
12 def index():
13     return render_template("index.html")
14
15
16 @app.route("/search")
17 def search():
18     q = request.args.get("q")
19     if q:
20         shows = db.execute("SELECT * FROM shows WHERE title LIKE ?", "%" + q + "%")
21     else:
22         shows = []
23     return render_template("search.html", shows=shows)
```

- 1 cs50
- 2 Flask

```
1  <!DOCTYPE html>
2
3  <html lang="en">
4    <head>
5      <meta name="viewport" content="initial-scale=1, width=device-width">
6      <title>shows</title>
7    </head>
8    <body>
9
10     <input autocomplete="off" autofocus placeholder="Query" type="search">
11
12     <ul></ul>
13
14     <script crossorigin="anonymous" integrity="sha256-9/aliU8dGd2tb60SsuzixeV4y/faTqgFtohetphbbj0=" src="https
: //code.jquery.com/jquery-3.5.1.min.js"></script>
15     <script>
16
17       let input = document.querySelector('input');
18       input.addEventListener('keyup', function() {
19         $.get('/search?q=' + input.value, function(shows) {
20           document.querySelector('ul').innerHTML = shows;
21         });
22       });
23
24     </script>
25
26   </body>
27 </html>
```

---

```
1 {% for show in shows %}
2   <li>{{ show.title }}</li>
3 {% endfor %}
```

```
1  # Searches for shows using Ajax with JSON
2
3  from cs50 import SQL
4  from flask import Flask, jsonify, render_template, request
5
6  app = Flask(__name__)
7
8  db = SQL("sqlite:///shows.db")
9
10
11 @app.route("/")
12 def index():
13     return render_template("index.html")
14
15
16 @app.route("/search")
17 def search():
18     q = request.args.get("q")
19     if q:
20         shows = db.execute("SELECT * FROM shows WHERE title LIKE ?", "%" + q + "%")
21     else:
22         shows = []
23     return jsonify(shows)
```

- 1 cs50
- 2 Flask

```
1 <!DOCTYPE html>
2
3 <html lang="en">
4   <head>
5     <meta name="viewport" content="initial-scale=1, width=device-width">
6     <title>shows</title>
7   </head>
8   <body>
9
10    <input autocomplete="off" autofocus placeholder="Query" type="text">
11
12    <ul></ul>
13
14    <script crossorigin="anonymous" integrity="sha256-9/aliU8dGd2tb60SsuzixeV4y/faTqgFtohetphbbj0=" src="https
: //code.jquery.com/jquery-3.5.1.min.js"></script>
15    <script>
16
17      let input = document.querySelector('input');
18      input.addEventListener('keyup', function() {
19        $.get('/search?q=' + input.value, function(shows) {
20          let html = '';
21          for (let id in shows) {
22            let title = shows[id].title.replace('&', '&amp;').replace('<', '&lt;').replace('>',
'&gt;');
23            html += '<li>' + title + '</li>';
24          }
25          document.querySelector('ul').innerHTML = html;
26        });
27      });
28
29    </script>
30
31  </body>
32 </html>
```