
```
1  from flask import Flask, redirect, render_template, session, url_for
2
3  app = Flask(__name__)
4
5  @app.route("/")
6  def index():
7      return render_template("index.html")
```

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

```
1  from flask import Flask, render_template, request
2
3  app = Flask(__name__)
4
5  @app.route("/")
6  def index():
7      return render_template("index.html")
8
9  @app.route("/register", methods=["POST"])
10 def register():
11     if not request.form.get("name") or not request.form.get("dorm"):
12         return render_template("failure.html")
13     return render_template("success.html")
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4 You must provide your name and dorm!
5 {% endblock %}
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4 <h1>Register for Frosh IMs</h1>
5 <form action="/register" method="post">
6     <input name="name" placeholder="Name" type="text"/>
7     <select name="dorm">
8         <option disabled selected value="">Dorm</option>
9         <option value="Apley Court">Apley Court</option>
10        <option value="Canaday">Canaday</option>
11        <option value="Grays">Grays</option>
12        <option value="Greenough">Greenough</option>
13        <option value="Hollis">Hollis</option>
14        <option value="Holworthy">Holworthy</option>
15        <option value="Hurlbut">Hurlbut</option>
16        <option value="Lionel">Lionel</option>
17        <option value="Matthews">Matthews</option>
18        <option value="Mower">Mower</option>
19        <option value="Pennypacker">Pennypacker</option>
20        <option value="Stoughton">Stoughton</option>
21        <option value="Straus">Straus</option>
22        <option value="Thayer">Thayer</option>
23        <option value="Weld">Weld</option>
24        <option value="Wigglesworth">Wigglesworth</option>
25    </select>
26    <input type="submit" value="Register"/>
27 </form>
28 {% endblock %}
```

```
1  <!DOCTYPE html>
2
3  <html>
4    <head>
5      <meta name="viewport" content="initial-scale=1, width=device-width"/>
6      <title>froshims0</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! (Well, not really.)
5 {% endblock %}
```

```
1  from flask import Flask, redirect, render_template, request
2
3  # Configure app
4  app = Flask(__name__)
5
6  # Registrants
7  students = []
8
9  @app.route("/")
10 def index():
11     return render_template("index.html")
12
13
14 @app.route("/registrants")
15 def registrants():
16     return render_template("registrants.html", students=students)
17
18
19 @app.route("/register", methods=["POST"])
20 def register():
21     name = request.form.get("name")
22     dorm = request.form.get("dorm")
23     if not name or not dorm:
24         return render_template("failure.html")
25     students.append(f"{name} from {dorm}")
26     return redirect("/registrants")
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4 You must provide your name and dorm!
5 {% endblock %}
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4 <h1>Register for Frosh IMs</h1>
5 <form action="/register" method="post">
6     <input name="name" placeholder="Name" type="text"/>
7     <select name="dorm">
8         <option disabled selected value="">Dorm</option>
9         <option value="Apley Court">Apley Court</option>
10        <option value="Canaday">Canaday</option>
11        <option value="Grays">Grays</option>
12        <option value="Greenough">Greenough</option>
13        <option value="Hollis">Hollis</option>
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16        <option value="Lionel">Lionel</option>
17        <option value="Matthews">Matthews</option>
18        <option value="Mower">Mower</option>
19        <option value="Pennypacker">Pennypacker</option>
20        <option value="Stoughton">Stoughton</option>
21        <option value="Straus">Straus</option>
22        <option value="Thayer">Thayer</option>
23        <option value="Weld">Weld</option>
24        <option value="Wigglesworth">Wigglesworth</option>
25    </select>
26    <input type="submit" value="Register"/>
27 </form>
28 {% endblock %}
```

```
1  <!DOCTYPE html>
2
3  <html>
4      <head>
5          <meta content="initial-scale=1, width=device-width" name="viewport"/>
6          <title>froshims1</title>
7      </head>
8      <body>
9          {% block body %}{% endblock %}
10     </body>
11 </html>
```

```
1  {% extends "layout.html" %}
2
3  {% block body %}
4
5  <ul>
6      {% for student in students %}
7          <li>{{ student }}</li>
8          {% endfor %}
9  </ul>
10
11  {% endblock %}
```

```
1  import os
2  import smtplib
3  from flask import Flask, render_template, request
4
5  # Configure app
6  app = Flask(__name__)
7
8  @app.route("/")
9  def index():
10     return render_template("index.html")
11
12
13  @app.route("/register", methods=["POST"])
14  def register():
15     name = request.form.get("name")
16     email = request.form.get("email")
17     dorm = request.form.get("dorm")
18     if not name or not email or not dorm:
19         return render_template("failure.html")
20     message = "You are registered!"
21     server = smtplib.SMTP("smtp.gmail.com", 587)
22     server.starttls()
23     server.login("jharvard@cs50.net", os.getenv("PASSWORD"))
24     server.sendmail("jharvard@cs50.net", email, message)
25     return render_template("success.html")
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4 You must provide your name and dorm!
5 {% endblock %}
```

```
1  {% extends "layout.html" %}
2
3  {% block body %}
4  <h1>Register for Frosh IMs</h1>
5  <form action="/register" method="post">
6      <input name="name" placeholder="Name" type="text"/>
7      <input name="email" placeholder="Email" type="email"/>
8      <select name="dorm">
9          <option disabled selected value="">Dorm</option>
10         <option value="Apley Court">Apley Court</option>
11         <option value="Canaday">Canaday</option>
12         <option value="Grays">Grays</option>
13         <option value="Greenough">Greenough</option>
14         <option value="Hollis">Hollis</option>
15         <option value="Holworthy">Holworthy</option>
16         <option value="Hurlbut">Hurlbut</option>
17         <option value="Lionel">Lionel</option>
18         <option value="Matthews">Matthews</option>
19         <option value="Mower">Mower</option>
20         <option value="Pennypacker">Pennypacker</option>
21         <option value="Stoughton">Stoughton</option>
22         <option value="Straus">Straus</option>
23         <option value="Thayer">Thayer</option>
24         <option value="Weld">Weld</option>
25         <option value="Wigglesworth">Wigglesworth</option>
26     </select>
27     <input type="submit" value="Register"/>
28 </form>
29 {% endblock %}
```

```
1  <!DOCTYPE html>
2
3  <html>
4    <head>
5      <meta content="initial-scale=1, width=device-width" name="viewport"/>
6      <title>froshims2</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! (Really.)
5 {% endblock %}
```

```
1  from flask import Flask, render_template, request
2  import csv
3
4  app = Flask(__name__)
5
6  @app.route("/")
7  def index():
8      return render_template("index.html")
9
10 @app.route("/register", methods=["POST"])
11 def register():
12     if not request.form.get("name") or not request.form.get("dorm"):
13         return render_template("failure.html")
14     file = open("registrants.csv", "a")
15     writer = csv.writer(file)
16     writer.writerow((request.form.get("name"), request.form.get("dorm")))
17     file.close()
18     return render_template("success.html")
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4 You must provide your name and dorm!
5 {% endblock %}
```

```
1 {% extends "layout.html" %}
2
3 {% block body %}
4 <h1>Register for Frosh IMs</h1>
5 <form action="/register" method="post">
6     <input name="name" placeholder="Name" type="text"/>
7     <select name="dorm">
8         <option disabled selected value="">Dorm</option>
9         <option value="Apley Court">Apley Court</option>
10        <option value="Canaday">Canaday</option>
11        <option value="Grays">Grays</option>
12        <option value="Greenough">Greenough</option>
13        <option value="Hollis">Hollis</option>
14        <option value="Holworthy">Holworthy</option>
15        <option value="Hurlbut">Hurlbut</option>
16        <option value="Lionel">Lionel</option>
17        <option value="Matthews">Matthews</option>
18        <option value="Mower">Mower</option>
19        <option value="Pennypacker">Pennypacker</option>
20        <option value="Stoughton">Stoughton</option>
21        <option value="Straus">Straus</option>
22        <option value="Thayer">Thayer</option>
23        <option value="Weld">Weld</option>
24        <option value="Wigglesworth">Wigglesworth</option>
25    </select>
26    <input type="submit" value="Register"/>
27 </form>
28 {% endblock %}
```

```
1  <!DOCTYPE html>
2
3  <html>
4      <head>
5          <meta name="viewport" content="initial-scale=1, width=device-width"/>
6          <title>froshims3</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! (Really.)
5 {% endblock %}
```

```
1  # Implements a web server
2
3  from http.server import BaseHTTPRequestHandler, HTTPServer
4
5
6  # HTTPRequestHandler class
7  class HTTPServer_RequestHandler(BaseHTTPRequestHandler):
8
9      # GET
10     def do_GET(self):
11
12         # send response status code
13         self.send_response(200)
14
15         # send headers
16         self.send_header("Content-type", "text/html")
17         self.end_headers()
18
19         # write message
20         self.wfile.write(bytes("hello, world", "utf8"))
21
22
23     # configure server
24     port = 8080
25     server_address = ("0.0.0.0", port)
26     httpd = HTTPServer(server_address, HTTPServer_RequestHandler)
27
28     # run server
29     httpd.serve_forever()
```