

Python Object-Oriented Program with Libraries

Unit 6: Flask Web App Development

CHAPTER 3: HTTPREQUESTS AND HTTPRESPONDS

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Objectives

- Use of Form
- HTTP GET and POST HTTP Requests
- Get the form input and re-render the web-page with the input data.

Group routes into a module

LECTURE 1



Group routes into a module

- Grouping routes into module so that the project is more manageable

```
from flask import Flask, render_template
app = Flask(__name__)    # create Flask as app
```

Site5/app8.py

```
from routes import *    # same effects as the @app.route in app7.py
```

```
if __name__ == "__main__":
    app.run(debug=True)
```

```
from flask import render_template
from app8 import app
```

Site5/routes.py

```
@app.route('/')
@app.route('/index')
def index():
    return render_template('index.html')
```

```
@app.route('/about')
def about():
    return render_template('about.html')
```

Add A Form to Flask Site

LECTURE 1



Add Form

- Add form module to forms.py
 - Create GUI of forms to about.html
 - Create Form Handler in routes.py
 - Create Secret Key in app9.py
-
- `pip install flask_wtf` # this step is needed.



Step 1: Create Form Handler Interface and add it to forms.py

Site6/forms.py

```
from flask_wtf import FlaskForm
from wtforms import StringField, SubmitField
from wtforms.validators import DataRequired # Guiding Rules

class AddTaskForm(FlaskForm):
    title = StringField('Title', validators=[DataRequired()])
    submit = SubmitField('Submit')
```

Title



Step 2: Connect the Forms to routes.py

Site6/routes.py

```
from flask import render_template
from app9 import app

import forms

@app.route('/')
@app.route('/index')
def index():
    return render_template('index.html')

@app.route('/about')
def about():
    form = forms.AddTaskForm()
    return render_template('about.html', form=form) #pass form to HTML
```



Step 3: Redesign the HTML Form

```
<title>About</title>
{% extends "base.html" %}
{% block main %}
<p>Some Content on the about Page</p>
<form action="/about" method="post">
    {{ form.csrf_token() }}
    {{ form.title.label }}
    {{ form.title }}
    {{ form.submit }}
</form>
{% endblock %}
```

Site6/templates/about.html

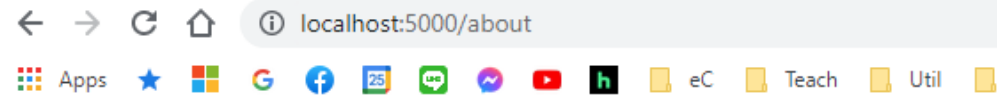


Step 4: Adding Secrete Key to app

Site6/app9.py

```
from flask import Flask, render_template
app = Flask(__name__)      # create Flask as app
app.config['SECRET_KEY'] = 'fdahdfahlfa'
from routes import *      # same effects a the @app.route in app7.py

if __name__ == "__main__":
    app.run(debug=True)
```



About this web-site

A multiple-page site

- [Home Page](#)
 - [About Page](#)
-

Some Content on the about Page

Title

Submit

← → ↻ 🏠 ⓘ localhost:5000/about

📱 Apps ★ 🍏 🌐 📅 🗨️ 📺 📺 eC 📺 Teach 📺 Util 📺 MET 📺 Go Bears

Method Not Allowed

The method is not allowed for the requested URL.




Handling the Post Method

Site7/routes.py

```
@app.route('/about', methods=['GET', 'POST'])
def about():
    form = forms.AddTaskForm()
    if form.validate_on_submit():
        print("Submitted Title", form.title.data)
    return render_template('about.html', form=form)
```

```
* Restarting with stat
* Debugger is active!
* Debugger PIN: 119-386-998
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
* Detected change in 'C:\\Eric_Chou\\Python Course\\Python Object-Oriented Programming with Libraries\\PyDev\\U6 Flask\\
\\Site7 Forms3\\routes.py', reloading
* Restarting with stat
* Debugger is active!
* Debugger PIN: 119-386-998
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
Submitted Title Title 1 Company
```



Handle Post Requests

LECTURE 1



Render the about page with the title input.

```
@app.route('/about', methods=['GET', 'POST'])  
def about():  
    form = forms.AddTaskForm()  
    if form.validate_on_submit():  
        print("Submitted Title", form.title.data)  
        return render_template('about.html', form=form,  
                                title=form.title.data)  
    return render_template('about.html', form=form)
```

Site7/routes.py

```
<title>About</title> Site7/templates/about.html
{% extends "base.html" %}
{% block main %}
<p>Some Content on the about Page</p>
<form action="/about" method="post">
    {{ form.csrf_token() }}
    {{ form.title.label }}
    {{ form.title }}
    {{ form.submit }}
</form>
{% if title %}
    <h1>{{ title }}</h1>
{% endif %}
{% endblock %}
```

About this web-site

A multiple-page site

- [Home Page](#)
 - [About Page](#)
-

Some Content on the about Page

Title

Computer Science