

Python - Bottle Framework for Web App Development

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What is Bottle

- Web App Micro Framework
 - No MVC or ORM like Django
- `python3 -m pip install bottle`
- <https://bottlepy.org/docs/dev/>
- Dirt Simple Framework that runs on script execution

Basic Architecture

- Bottle for Web App functionality
- Python for code
- Static Files - Data Store for Files
- Templates - HTML Templates with Language
- Database for Data

Put Into Production???

- Python Web Server
- NGINX
- Ports - 8080

Bottle Basics

- `route`
- `run(host='localhost', port=8080)`
- Make sure script is running
- Changes do not take effect until script is restarted
- Example = `bottle-route.py`

Dynamic Routes

- /<value>
- Filters - int, float, path
 - /<value:int>
- Example = bottle-value.py

Redirect

- Redirect to another web page
- Example = `bottle-redirect.py`

POST

- Post - Process HTML form data
- From bottle import post
- `@post('/process')`
- `name = request.forms.get('name')`
- Example - `bottle-post.py`

GET

- Get - Process values from URL
- `from bottle import get`
- `Red`
- `@get('/')`
- `color = request.query.get('color')`
- Example - `bottle-get.py`

Templates

- From bottle import template
- Create “views” folder in root directory
- Template files end with .tpl
- Template files allow you to create dynamic web pages
- `return template('hello_template')`
- `return template('hello_var_template', name=name)`

Static Files

- Any Static Files such as Images or CSS Style Sheet
- For Security File Server should be separate server
- File/ Folder Permissions
- Create “static” folder in Root Directory
- Example = bottle-static.py

Labs

- lab-simple.py
 - Create a very basic web app
- lab-note.py
 - Create a Note Taking App
- lab-ping.py
 - Create a web app that automatically detects if a host is reachable