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COSC-381 MW 11:00
Winter 2023

CS50 - Flask

Question 1: Please use your own words to describe what is a design pattern, what is MVC.

Ans: A layout or plan that can be used to design, solve, or build software. A MVC is a type of design pattern that stands for Model-View-Controller.

Question 2: What Python decorators are used in the lecture?

Ans:

```
def index()
def greet()
```

Question 3: Please use your own words to describe what is `render_template`.

Ans: Render_Template is a function that can look for the given file and return it's contents. It's used in the video like this: `return render_template("index.html")`

Question 4: Please give the URL to the API documentation of Flask. The top of the webpage should look like this:

Ans: https://flask.palletsprojects.com/en/2.2.x/api/

Question 5: What happens if we change `@app.route("/")` to `@app.route("/hello")` ?

Ans: The webpage will route to "/" by default. By changing the route parameter, the page will not load since "/" doesn't exist anymore. If you enter "/hello" in the URL, the page will load again.

Question 6: At 31:06 of the video, the professor demonstrated how to change the `name` to the `first_name` , which places did he change? How are those places connected?

Ans: What he changed & how they connect:

- Index HTML Form Input name and placeholder - the name of the form input and the placeholder to be displayed
- The py app GET parameter - the HTTP parameter that is grabbed from the URL
- The py app parameter - the parameter that gets passed into the template
- Template HTML output variable - the parameter from the py app

Question 7: Please complete the following method so that it is a route that accepts both GET and POST requests. For a GET request, the method assumes a URL parameter, `get_param` , and returns the value of `get_param` . For a POST request, the method assumes a form parameter, `post_param` , and returns the value of `post_param` .

```
@app.route("/") # please change the line if needed
def index():
    # todo: finish the method
```

Ans:

```
@app.route("/", methods=["GET", "POST"])
def index():
    if request.method == "GET":
        return get_param(get_param)
    if request.method == "POST":
        return post_param(post_param)
```

Question 8: Please use your words to answer: What is Jinja and why is it related to Flask?

Ans: Jinja is used to create templates that flask can use to render HTML. It can be used to avoid retyping the same lines for every HTML file.

Question 9: The second part of the lecture demonstrated how to build a registration system. In that system, which part of the code is the model in the MVC design pattern?

Ans: The model part is the part that defines the form and what's on it