## How Do We Serve Static Files?

In this lesson, we will study how we can host the static files present in our Flask application.

#### WE'LL COVER THE FOLLOWING

- What are static files?
- Steps to Serve Static Files
  - Create a \static directory
  - Create a URL for static files
    - url\_for() function
- Example application
  - Explanation

# What are static files? #

Static files, or assets, are the files that the server sends to the clients "as-it-is", i.e., without any intervention. For example, any css files, background images, or JavaScript files that we might have on our website are sent to the client without modification.

# Steps to Serve Static Files #

The following steps need to be taken to host a static asset.

# Create a \static directory #

First, similar to the templates, we need to create a directory called \static in our project for Flask to recognize it. The same file structure strategies that apply to the templates will also apply here. You can recall them from the "How to Use HTML Templates" lesson.

## Create a URL for static files #

In the case of a template we created the IDI through the views and the routes

associated with them. However, we do not use views for static files. So, to

create a separate URL for them, we use the url\_for() function.

```
url_for() function #
```

The url\_for() function is used to build a URL for a certain endpoint. We can use it to build URL s for view functions as well. It takes the name of the endpoint and any associated variables as arguments. For example: The following line will generate the URL for the defined view.

```
url_for('view_function_name', variable_name = 'value_of_variable')
```

## Why do we need to use url\_for() when we can hardcode the URL?

- 1. The url\_for() function always returns the absolute URL for the endpoint. Thus, we call it anywhere in the project, and we will not have issues with relative paths.
- 2. If we end up changing the path for an endpoint or the route for a view, we do not have to change the hardcoded URL in the whole project.

The URL for a static file can be created using the static endpoint as following:

```
url_for('static', filename = 'name_of_file')
```

# Example application #

```
body {
   border: 5px solid grey;
   padding: 5px;
}

h1 {
   text-align: center;
}

p {
   border: 2px solid;
   padding: 5px;
   margin: 5px;
}
```

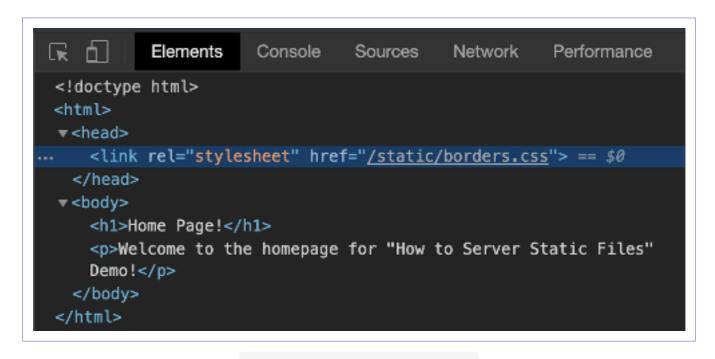
## Explanation #

In the code snippet given above, we linked the CSS stylesheet with home.html using the and </link> tags. Instead of a relative path in the href attribute, we used url\_for() to generate an absolute path for the static file.

```
    ★ You must be wondering: "what are the double braces {{ }}
    around the function?"
```

These braces are actually part of **Jinja's** syntax! We will learn about them in detail in the next chapter. For now, all you need to know is that whatever Python variable or function call we place inside them, its value will be rendered in the template when rendered on the client-side.

You can inspect the source code of the web page under Developer Tools in your browser to see that the absolute path to the borders.css has replaced the **Jinja** syntax. In fact, this is the **URL** that the function returned.



Source code in Developer Tools

In the next lesson, we will solve a challenge related to static files. Stay tuned!