

# Data Handling Using the Request Object

In this lesson, we will handle the POST request received by the login template and retrieve the data from it.

## WE'LL COVER THE FOLLOWING ^

- Accessing form data
  - Getting the `Method` type from `request`
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  - Getting `Form` data from `request`
    - Explanation
- Complete implementation
  - Explanation
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In the last lesson, we were sending both the `GET` and `POST` requests to the `login` view function. However, there was no differentiation between these requests inside the view.

✦ **So, how can we know if a particular request is `GET` or `POST` ?**

This is where the `request` object comes in handy. Let's find out more about the `request` object.

## Accessing form data #

To access the data sent by a user, we use the global `request` object. Before we start using it, let's import it from the `flask` module.

```
from flask import request
```

## Getting the `Method` type from `request` #

We can use the `method` member variable of the `request` object to determine the method of an incoming request. Consider the snippet given below.

```
@app.route("/login", methods=["GET", "POST"])
def login():
    if request.method == "POST":
        ...
    else
        ...
    return render_template("login.html")
```

### Explanation #

In the snippet given above, at **line #3**, we check if the method is `POST`. Then, the logic for handling a `POST` request can be implemented at **line #4**. Additionally, if the `method` is anything other than `POST`, then the logic for that can be added at **line #6**.

## Getting `Form` data from `request` #

We can use the `form` member variable of the `request` object to obtain values that the user submitted. The `form` variable is a special data structure called an `ImmutableMultiDict`. But don't get confused by it. You can still use it easily. Consider the snippet given below.

```
@app.route("/login", methods=["GET", "POST"])
def login():
    if request.method == "POST":
        email = request.form["email"]
        password = request.form["password"]
        ...
    else:
        ...
    return render_template("login.html")
```

### Explanation #

In the snippet above, at **line #4 - 5**, you can observe the syntax for extracting the `form` data. Notice that the **key** for the `form` dictionary corresponds to the `name` attribute of the `<input>` tag. An alternate method can be:

```
if request.method == "POST":
```

```
email = request.form.get("email")
```

```
password = request.form.get("password")
```

```
...
```

Both of these syntaxes are valid.

## Complete implementation #

Now, let's wrap all the information into a working example. For the sake of this demo, consider that we possess a record of user credentials stored in the form of a dictionary. The application given below provides a straightforward user validation logic.

```
#header {
  padding: 30px;
  text-align: center;
  background: #140005;
  color: white;
  font-size: 40px;
}
#footer {
  position: fixed;
  width: 100%;
  background-color: #BBC4C2;
  color: white;
  text-align: center;
  left: 0;
  bottom: 0;
}
ul {
  list-style-type: none;
  margin: 0;
  padding: 0;
}
li {
  display: inline;
}
```

## Explanation #

Let's break down the changes we made in the application.

In `app.py` #

- On **line #5 - 8**, we are provided with a dictionary containing valid usernames and passwords.
- For the validation, we use an `if` condition in **line 19** to check if `email` exists as a key in the dictionary associated with the value of `password`

exists as a key in the dictionary associated with the value of `password`.

- If the comparison is successful, then the user is validated and, **in line #20**, the same template is rendered again with a `message` variable indicating the validation.
- In case the `username` and `password` provided were incorrect, then the same template is returned, and an error message is sent using the `message` variable in **line #21**.

In `login.html` #

- To show the `message` inside the template, we added a conditional statement at **line #9**. This statement checks if a `message` variable was received.
- Next, if the `message` variable was indeed received, then in **line #10**, its value is shown to the user.

Quick Quiz!

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Which of these `if` statements can determine if a `POST` request was received?

COMPLETED 0%



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Now that we understand how to handle forms using the `request` object, in the next lesson, we will discuss the other method. Stay tuned!