Python Flask – Redirect and Errors

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We'll discuss redirects and errors with Python Flask in this article. A redirect is used in the Flask class to send the user to a particular URL with the status code. conversely, this status code additionally identifies the issue. When we access a website, our browser sends a request to the server, and the server replies with what is known as the HTTP status code, which is a three-digit number, The different reasons for errors are:

- Unauthorized access or poor request.
- Unsupported media file types.
- Overload of the backend server.
- Internal hardware/connection error.

Syntax of Redirect

> ***flask.redirect(location,code=302)***
>
> ***Parameters:***
>
> - ***location(str):*** *the location which URL directs to.*
> - ***code(int):*** *The status code for Redirect.*
> - ***Code:*** *The default code is 302 which means that the move is only temporary.*
>
> ***Return:*** *The response object and redirects the user to another target location with the specified code.*

The different types of HTTP codes are:

Code	Status
300	Multiple_choices
301	Moved_permanently
302	Found
303	See_other
304	Not_modified
305	Use_proxy
306	Reserved
307	Temporary_redirect

Import the redirect attribute

We can redirect the URL using Flask by importing **redirect.** Let's see how to import redirects from Flask

Python3

```
from flask import redirect
```

Example:

Let's take a simple example to redirect the URL using a flask named **app.py**.

Python3

```
# importing redirect
from flask import Flask, redirect, url_for, render_template, request
```

```
# Initialize the flask application
app = Flask(__name__)

# It will load the form template which
# is in login.html
@app.route('/')
def index():
    return render_template("login.html")


@app.route('/success')
def success():
    return "logged in successfully"

# loggnig to the form with method POST or GET
@app.route("/login", methods=["POST", "GET"])
def login():

    # if the method is POST and Username is admin then
    # it will redirects to success url.
    if request.method == "POST" and request.form["username"] == "admin":
        return redirect(url_for("success"))

    # if the method is GET or username is not admin,
    # then it redirects to index method.
    return redirect(url_for('index'))


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

login.html

Create a folder named templates. In the templates, creates a templates/**login.html** file. On this page, we will take input from the user of its username.

HTML

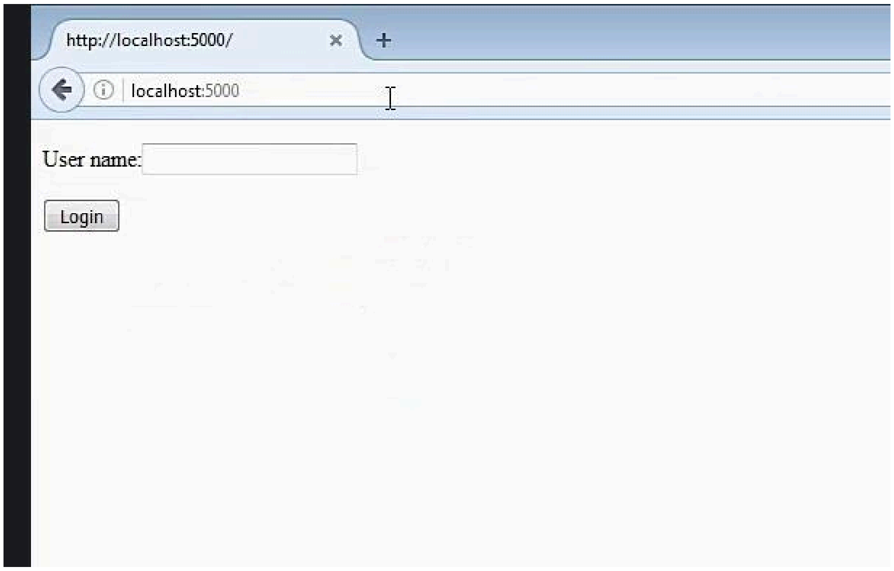
```
<!DOCTYPE html>
<html lang="en">
   <body>
      <form method="POST", action="\login">
         Username: <input  name=username type=text></input><br>
         <button type="submit">Login</button>
      </form>
```

```
    </body>
</html>
```

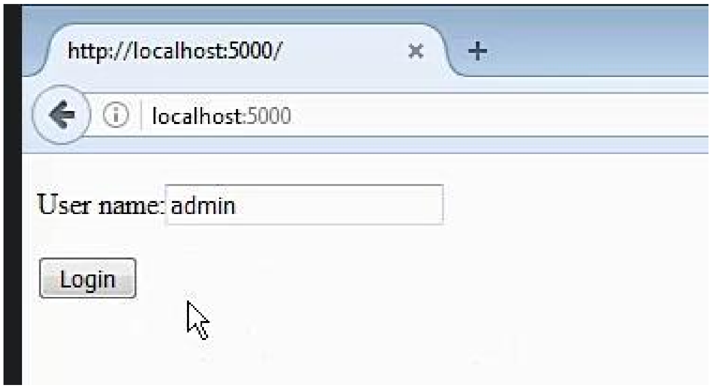
Now we will deploy our code.

```
python app.py
```

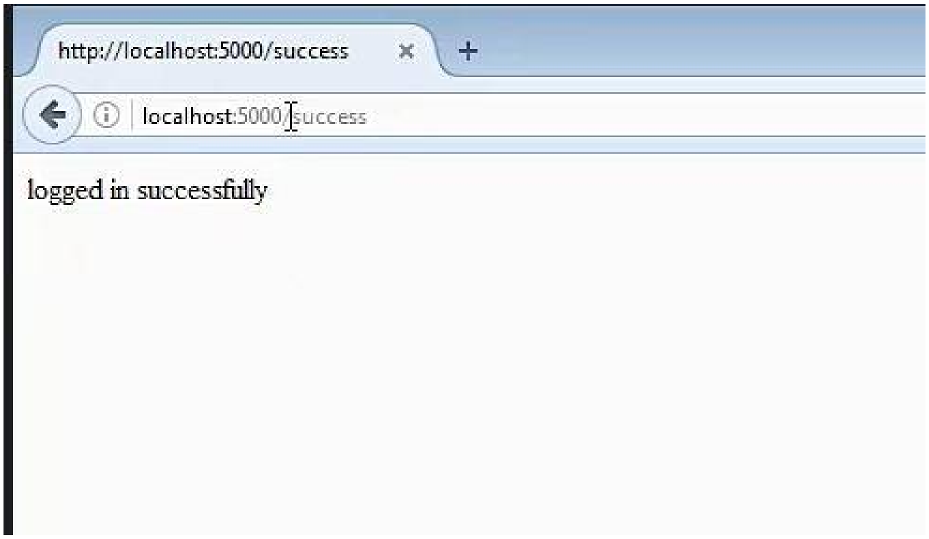
Output:



Case 1: If the Username is **admin** and the method is **POST** then it will redirect to the success URL and display logged in successfully.

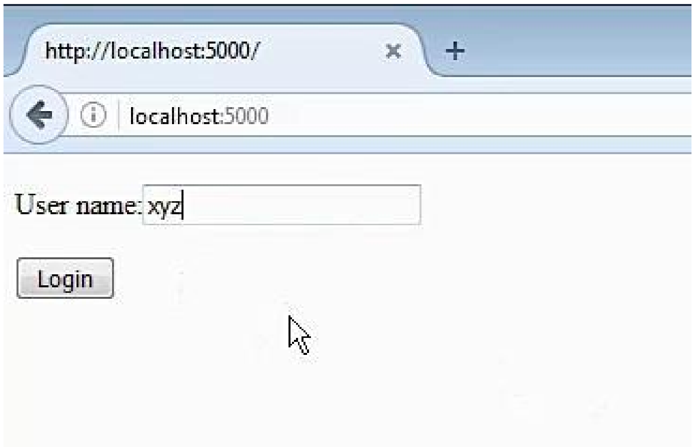


User name: admin



logged in successfully

Case 2: In the other case, if the Username is something like xyz or anything then it will redirect to the **index** method i.e., it will load the form again until the username is admin.



User name: xyz

Flasks Errors

If there is an error in the address or if there is no such URL then Flask has an **abort()** function used to exit with an error code.

Syntax of abort() method

> ***Syntax:*** *abort(code, message)*

- ***code:*** *int, The code parameter takes any of the following values*
- ***message:*** *str, create your custom message Error.*

The different types of errors we can abort in the application in your Flask.

Code	Error
400	Bad request
401	Unauthenticated
403	Forbidden
404	Not Found
406	Not Acceptable
415	Unsupported Media Type
429	Too Many Requests

Example to demonstrate abort

In this example, if the username starts with a number then an error code message will through, else on success “Good username” will be printed.

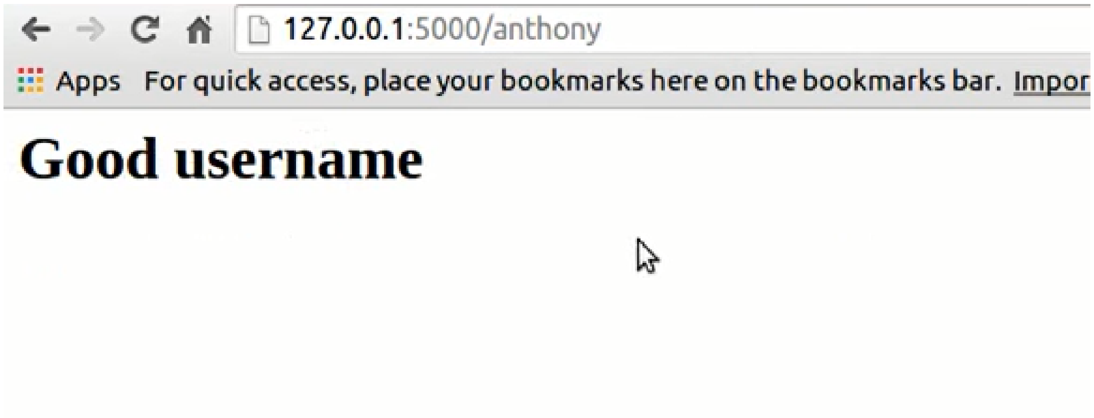
Example 1:

Python3

```
# importing abort
from flask import Flask, abort

# Initialize the flask application
app = Flask(__name__)


@app.route('/<uname>')
def index(uname):
    if uname[0].isdigit():
        abort(400)
    return '<h1>Good Username</h1>'


if __name__ == '__main__':
    app.run()
```

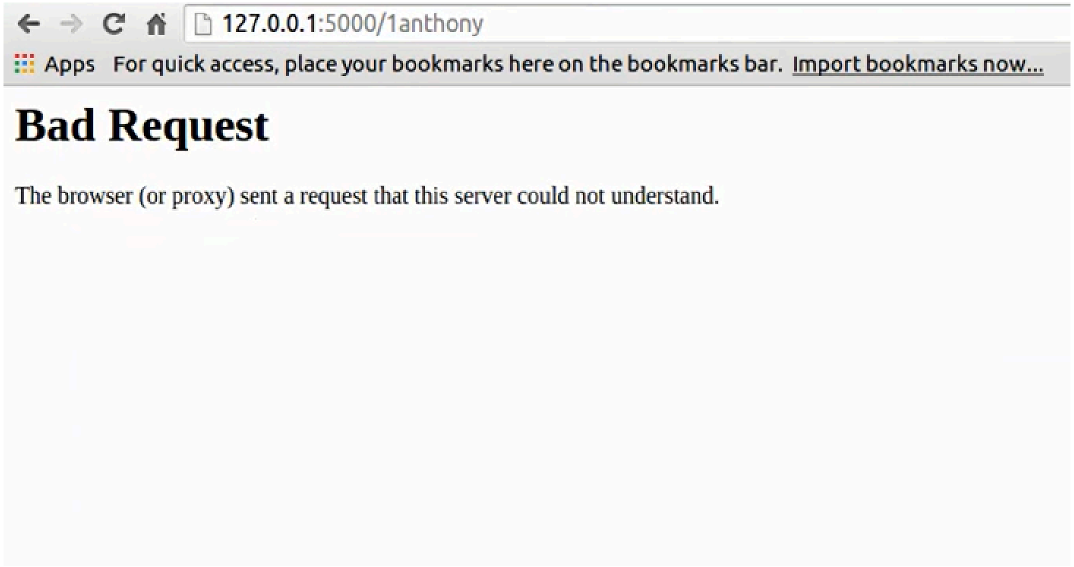
Output:

Case 1: If the username doesn't start with a number.


127.0.0.1:5000/anthony
Apps
For quick access, place your bookmarks here on the bookmarks bar. Impor

Good username

Case 2: If the username starts with a number.


127.0.0.1:5000/1anthony
Apps
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Bad Request

The browser (or proxy) sent a request that this server could not understand.

Example 2:

In the above Python code, the status code to the abort() is **400**, so it raises a Bad Request Error. Let's try to change the code to **403**. If the username starts with a number then it raises a Forbidden Error.

Python3

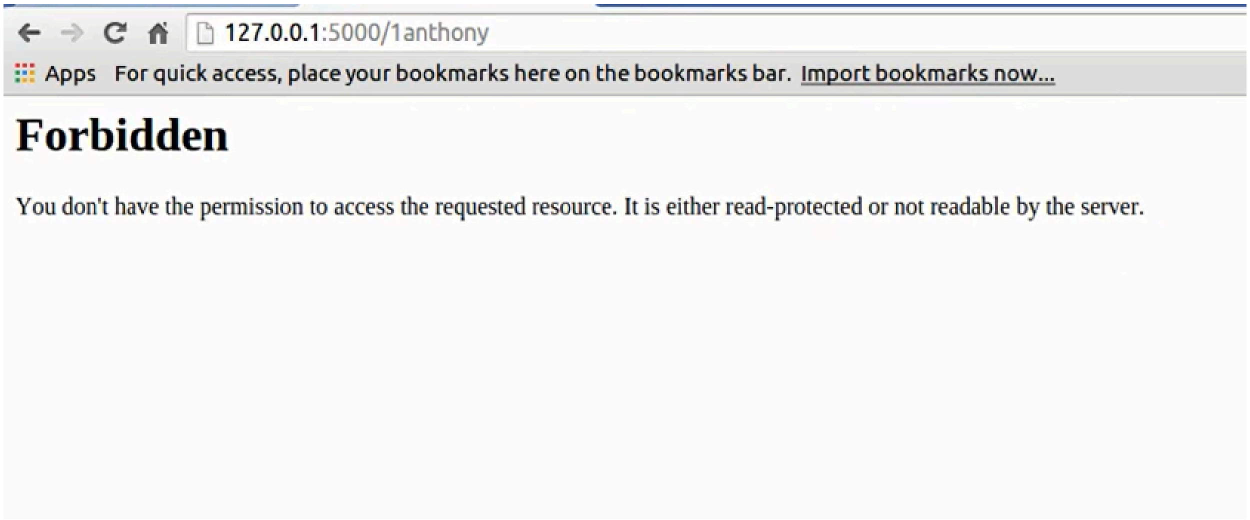
```
# importing abort
from flask import Flask, abort

# Initialize the flask application
app = Flask(__name__)


@app.route('/<uname>')
def index(uname):
    if uname[0].isdigit():
        abort(403)
    return '<h1>Good Username</h1>'


if __name__ == '__main__':
    app.run()
```

Output:



127.0.0.1:5000/1anthony
Apps For quick access, place your bookmarks here on the bookmarks bar. Import bookmarks now...

Forbidden

You don't have the permission to access the requested resource. It is either read-protected or not readable by the server.

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5

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