Hello World!

In this lesson, we will build our first Flask application! Hurrah!

WE'LL COVER THE FOLLOWING

Initial set-up for Flask

To run a `Flask` application on Educative, we do not need to set up anything. All code will run inside the special environment within the browser. **It's as easy as that!**

Educative is designed in such a way that we do not get distracted by dependencies and get right into what is essential: **the learning**.

Writing our first application

The simplest Flask application can be made using only one script! Let us call this file `app.py`. We will break down the program into steps and discuss one.

Step 1: Importing modules

For this application, we only need the `Flask` module from the `flask` package. So let's import that first.

```
from flask import Flask
```

Step 2: Creating a Flask object

We need to make an object with the imported `Flask` module. This object will be our **WSGI** application called `app`. As discussed before, the *WSGI aspect* of the application is taken care of by the `Flask` module.

```
app = Flask(__name__)
```

Step 3: Run the application in main

To run our application, we need to call the `run()` function of our application object.

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

The `run()` function has some optional parameters. For complete documentation, refer here.

Step 4: Create a view function

Before we run the application, we need to tell the application to show something as output in the browser window. Thus, we create a function called `hello()` which returns the string `"Hello World!"`. The output returned from this function will be shown in the browser.

```
def hello():
    return "Hello World!";
```

Step 5: Assign a URL route

Finally, we need to tell the Flask app when to call the view function `hello()`. For this purpose, we will create a URL route. A URL route is associated with each view function. This association is created by using the `route()` decorator before each view function.

```
@app.route("/")
def hello():
    return "Hello World!";
```

Complete implementation

The following program shows the complete implementation of a “Hello World” application in Flask!

> 📌 **Note:** In the `run()` function below we have specified `debug = True`, `host = "0.0.0.0"` and `port = 3000`. Due to the platform configurations, we will be using these same values for `host` and `port` throughout the course.

```
from flask import Flask
app = Flask(__name__)
@app.route("/")
def hello():
    return "Hello World!";

if __name__ == "__main__":
    app.run(debug = True, host = "0.0.0.0", port = 3000)
```

> 📌 **Note:** Don’t get confused by all the terminology used in this lesson such as *views*, *routes*, *hosts*, etc. We will cover everything in detail later on.

We just made our first Flask application! It is as easy as that.