<py>

```
<html>
    ...
    <py-script> print('Now you can!') </py-script>
</html>
```

# PyScript

A framework that allows you to run python script within HTML!

# What is PyScript?

- A framework that allows users to create rich Python applications in the browser using HTML's interface.
- Aims to give users a first-class programming language that has consistent styling rules, is more expressive, and is easier to learn.
- There are some core components:
  - Python in the browser
  - Python ecosystem
  - Python with JavaScript
  - Environment management
  - Visual application development
  - Flexible framework

# In conclusion, ...

All that to say... PyScript is just HTML, only a bit (okay, maybe a lot) more powerful, thanks to the rich and accessible ecosystem of Python libraries.

In short, our mission is to bring programming for the 99%.

# Sample codes: hello-world.html

```html
<html>
  <head>
    <link rel="stylesheet" href="https://pyscript.net/alpha/pyscript.css" />
    <script defer src="https://pyscript.net/alpha/pyscript.js"></script>
  </head>
  <body> <py-script> print('Hello, World!') </py-script> </body>
</html>
```


Source: https://github.com/pyscript/pyscript/blob/main/GETTING-STARTED.md

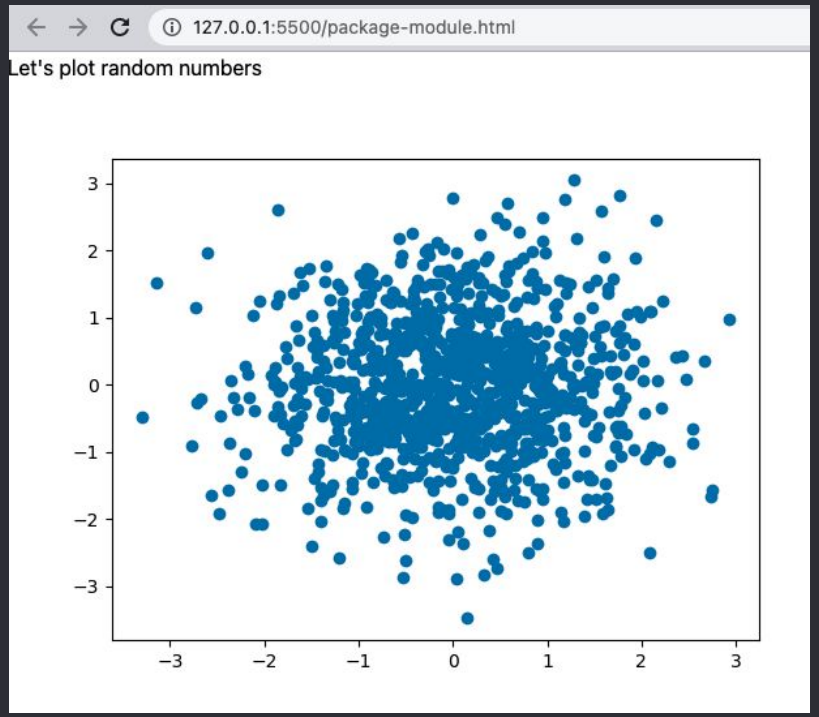
# Sample codes: compute-phi.html

```
<html>
  <head>
    <link rel="stylesheet" href="https://pyscript.net/alpha/pyscript.css" />
    <script defer src="https://pyscript.net/alpha/pyscript.js"></script>
  </head>
  <body>
      <py-script>
print("Let's compute π:")
def wallis(n):
    pi = 2
    for i in range(1,n):
        pi *= 4 * i ** 2 / (4 * i ** 2 - 1)
    return pi

pi = wallis(100000)
s = f"π is approximately {pi:.3f}"
print(s)
      </py-script>
</html>
```


Source: https://github.com/pyscript/pyscript/blob/main/GETTING-STARTED.md

# Sample codes: package-module.html

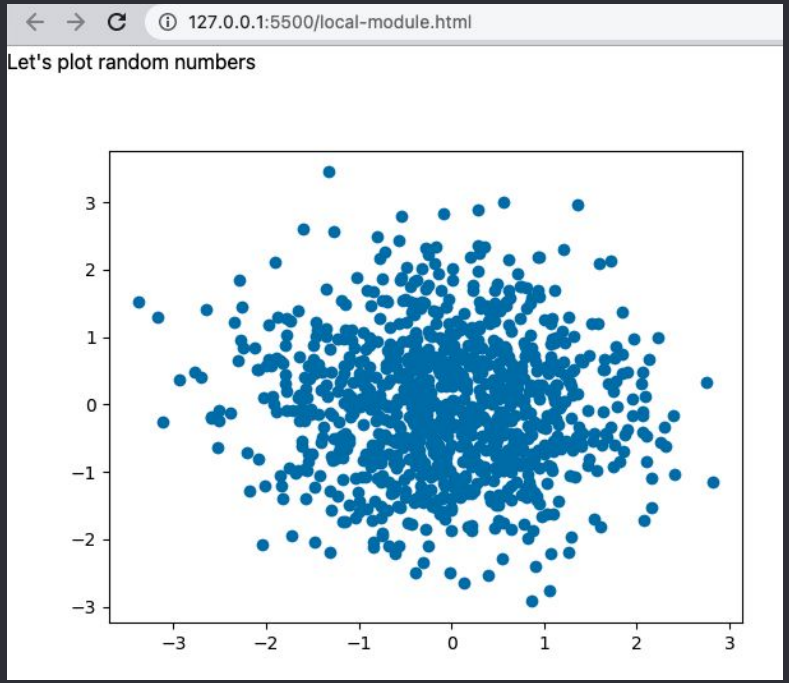
```
<html>
    <head>
      <link rel="stylesheet" href="https://pyscript.net/alpha/pyscript.css" />
      <script defer src="https://pyscript.net/alpha/pyscript.js"></script>
      <py-env>
        - numpy
        - matplotlib
      </py-env>
    </head>

  <body>
    <h1>Let's plot random numbers</h1>
    <div id="plot"></div>
    <py-script output="plot">
import matplotlib.pyplot as plt
import numpy as np

x = np.random.randn(1000)
y = np.random.randn(1000)

fig, ax = plt.subplots()
ax.scatter(x, y)
fig
    </py-script>
  </body>
</html>
```




Source: https://github.com/pyscript/pyscript/blob/main/GETTING-STARTED.md

# Sample codes: local-module.html

```
# data.py
import numpy as np

def make_x_and_y(n):
    x = np.random.randn(n)
    y = np.random.randn(n)
    return x, y

# local-module.html
<html>
    <head>
      <link rel="stylesheet" href="https://pyscript.net/alpha/pyscript.css" />
      <script defer src="https://pyscript.net/alpha/pyscript.js"></script>
      <py-env>
        - numpy
        - matplotlib
        - paths:
          - /data.py
      </py-env>
    </head>

  <body>
    <h1>Let's plot random numbers</h1>
    <div id="plot"></div>
    <py-script output="plot">
import matplotlib.pyplot as plt
from data import make_x_and_y

x, y = make_x_and_y(n=1000)

fig, ax = plt.subplots()
ax.scatter(x, y)
fig
    </py-script>
  </body>
</html>
```




Source: https://github.com/pyscript/pyscript/blob/main/GETTING-STARTED.md

# What's next?

Trying another case and keep exercising!