

Pyscript

running python in the browser

What's Pyscript

PyScript is an open source platform to run python in the browser

- Web assembly based
- Make fully interactive app as static webpage
- Some html/javascript required



Some links:

- pyscript.net
- pyscript.net/examples/
- pyodide.org

Pyscript project structure

- `index.html` : the webpage
- `main.py` : the script
- `pyscript.toml/.json`: the required packages

Pyscript project structure

- index.html : the webpage

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <meta charset="utf-8" />
5     <meta name="viewport" content="width=device-width,initial-scale=1" />
6     <title>🦜 Polyglot - Piratical PyScript</title>
7     <link rel="stylesheet" href="https://pyscript.net/releases/2024.3.2/core.css">
8     <script type="module" src="https://pyscript.net/releases/2024.3.2/core.js"></script>
9   </head>
10  <body>
11    <h1>Polyglot 🦜 💬 🇬🇧 ➡ 🇵🇾</h1>
12    <p>Translate English into Pirate speak...</p>
13    <input type="text" name="english" id="english" placeholder="Type English here..." />
14    <button py-click="translate_english">Translate</button>
15    <div id="output"></div>
16    <script type="py" src="./main.py" config="./pyscript.json"></script>
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Pyscript project structure

- main.py : the script

```
1 import arrr
2 from pyscript import document
3
4
5 def translate_english(event):
6     input_text = document.querySelector("#english")
7     english = input_text.value
8     output_div = document.querySelector("#output")
9     output_div.innerText = arrr.translate(english)
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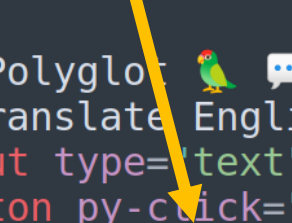
```
10 <body>
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Pyscript project structure

- pyscript.json : the required packages

```
1 {  
2   "packages": ["arrr"]  
3 }
```

- pyscript.toml : alternative syntax

```
1 name = "polyglot"  
2 description = "Translate English into Pirate speak with pyscript"  
3 packages = ["arrr"]
```

Alternative: inline everything

```
1  <!DOCTYPE html>
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5      <meta name="viewport" content="width=device-width,initial-scale=1" />
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13     <input type="text" name="english" id="english" placeholder="Type English here..." />
14     <button py-click="translate_english">Translate</button>
15     <div id="output"></div>
16     <script type="py" config='{"packages":["arrr"]}'>
17 import arrr
18 from pyscript import document
19
20 def translate_english(event):
21     input_text = document.querySelector("#english")
22     english = input_text.value
23     output_div = document.querySelector("#output")
24     output_div.innerText = arrr.translate(english)
25
26     </script>
27   </body>
28 </html>
```

Going farther:

- <https://pyscript.net/examples/>
- <https://docs.pyscript.net/2024.10.2/>
- <https://github.com/anaconda/pyscript-tutorial>
- <https://www.javatpoint.com/pyscript>
- <https://realpython.com/pyscript-python-in-browser/>