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Python

Foundation of Artificial Intelligence

Run Python in the Browser with WASM

Run Python Code

The factorial of 5 is 120

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Python with WASM</title>
7   <script src="https://cdn.jsdelivr.net/pyodide/v0.23.4/full/pyodide.js"></script>
8 </head>
9 <body>
10  <h1>Foundation of Artificial Intelligence</h1>
11  <h3>Run Python in the Browser with WASM</h3>
12  <button id="run-python">Run Python Code</button>
13  <pre id="output"></pre>
14
15  <script>
16    async function runPython() {
17      let pyodide = await loadPyodide();
18      let pythonCode = `
19        def factorial(n):
20          if n == 0 or n == 1:
21            return 1
22          else:
23            return n * factorial(n - 1)
24
25        number = 5
26        f"The factorial of {number} is {factorial(number)}"
27      `;
28      let result = pyodide.runPython(pythonCode);
29      document.getElementById("output").textContent = result;
30    }
31
32    document.getElementById("run-python").addEventListener("click", runPython);
33  </script>
34 </body>
35 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS GITLENS JUPYTER Python - Web_Assembly

```
• danioloangelittorodriguez@Danilos-MacBook-Pro NCI AI MASTER % ls
Attendance Student letter.pdf      IMG_0463.jpeg
Danilo Angel Tito Rodriguez - Insurance.pdf  IMG_0464.jpeg
Danilo Angel Tito Rodriguez NCI Fee Receipt Jan 25.pdf  NCI Courses - MSc in Artificial Intelligence.pdf
Data Analytics AI                  POL Danilo Angel Tito Rodriguez.pdf
Data Governance & Ethics           Programming for AI
Datasets                           Registration-Form-Jan-2025.pdf
FoundationOfAI                     requirements.txt
• danioloangelittorodriguez@Danilos-MacBook-Pro NCI AI MASTER % . env/bin/activate
• (.env) danioloangelittorodriguez@Danilos-MacBook-Pro NCI AI MASTER % cd FoundationOfAI/Web_Assembly
• (.env) danioloangelittorodriguez@Danilos-MacBook-Pro Web_Assembly % python3 -m http.server
Serving HTTP on :: port 8080 (http://[::]:8080/) ...
:::1 - [20/Feb/2025 11:36:16] "GET / HTTP/1.1" 200 -
:::1 - [20/Feb/2025 11:36:16] code 404, message file not found
:::1 - [20/Feb/2025 11:36:16] "GET /apple-touch-icon-precomposed.png HTTP/1.1" 404 -
:::1 - [20/Feb/2025 11:36:16] code 404, message file not found
:::1 - [20/Feb/2025 11:36:16] "GET /apple-touch-icon.png HTTP/1.1" 404 -
:::1 - [20/Feb/2025 11:36:16] code 404, message file not found
:::1 - [20/Feb/2025 11:36:16] "GET /favicon.ico HTTP/1.1" 404 -
```

C

```
FoundationOfAi > Web_Assembly > C hello.c > main()
1 #include <stdio.h>
2
3 int main()
4 {
5     print('Foundation of Artificial Intelligence it' s amazing. ');
6     return 0;
7 }
```

PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS GITLENS JUPYTER zsh - emsdk

```
dex.system/bootstrap/usr/bin:/var/run/com.apple.security.cryptexd/codex.system/bootstrap/usr/appleinternal/bin:/Users/danioloangelittorodriguez/.vscode/extensions/ms-python.debugpy-2025.0.1-darwin-arm64/bundled/scripts/noConfigScripts
EMSDK = /Users/danioloangelittorodriguez/Library/Mobile Documents/com-apple-CloudDocs/NCI AI MASTER/FoundationOfAI/Web_Assembly/emsk
k
EMSDK_NODE = /Users/danioloangelittorodriguez/Library/Mobile Documents/com-apple-CloudDocs/NCI AI MASTER/FoundationOfAI/Web_Assembly
/emsdk/node/20.18.0_64bit/bin/node
EMSDK_PYTHON = /Users/danioloangelittorodriguez/Library/Mobile Documents/com-apple-CloudDocs/NCI AI MASTER/FoundationOfAI/Web_Assemb
ly/emsdk/python/3.9.2_64bit/bin/python3
SSL_CERT_FILE = /Users/danioloangelittorodriguez/Library/Mobile Documents/com-apple-CloudDocs/NCI AI MASTER/FoundationOfAI/Web_Assem
bly/emsdk/python/3.9.2_64bit/lib/python3.9/site-packages/certifi/cacert.pem
• (.env) danioloangelittorodriguez@Danilos-MacBook-Pro emsdk % emcc ./hello.c -o ./hello.html
zsh: command not found: emcc
• (.env) danioloangelittorodriguez@Danilos-MacBook-Pro emsdk % source ./emsdk_env.sh

./emsdk: line 36: /Users/danioloangelittorodriguez/Library/Mobile Documents/com-apple-CloudDocs/NCI AI MASTER/FoundationOfAI/Web_Asse
mbly/emsdk/python/3.9.2_64bit/bin/python3: No such file or directory
./emsdk: line 36: exec: /Users/danioloangelittorodriguez/Library/Mobile Documents/com-apple-CloudDocs/NCI AI MASTER/FoundationOfAI/We
b_Assembly/emsdk/python/3.9.2_64bit/bin/python3: cannot execute: No such file or directory
• (.env) danioloangelittorodriguez@Danilos-MacBook-Pro emsdk % source ./emsdk_env.sh
```