

Discovery-based learning via Participatory Live Coding



Graduate School

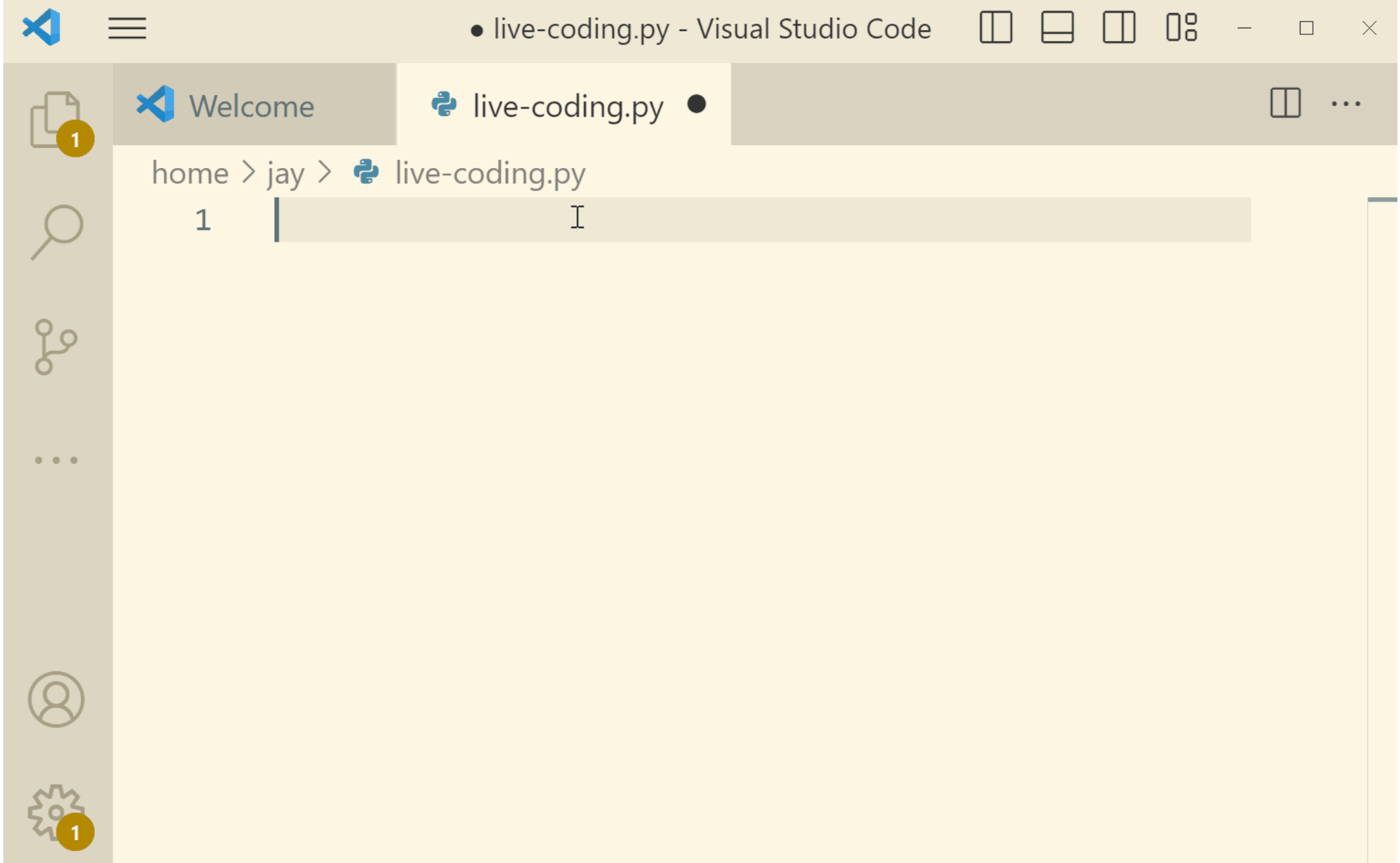
Supporting the Postgraduate student experience



Imperial College Business School

Participatory Live Coding

Participatory Live Coding



Hello World in Python

- An intuitive, high-level programming language celebrated for its simplicity and readability.
- Python is extensively used in a diverse range of fields such as web development, data analysis, AI, and scientific computing.

Refer to the code snippet on the right for a basic "Hello World" example in Python.

This is often the first program learners write when starting with Python or any new programming language.

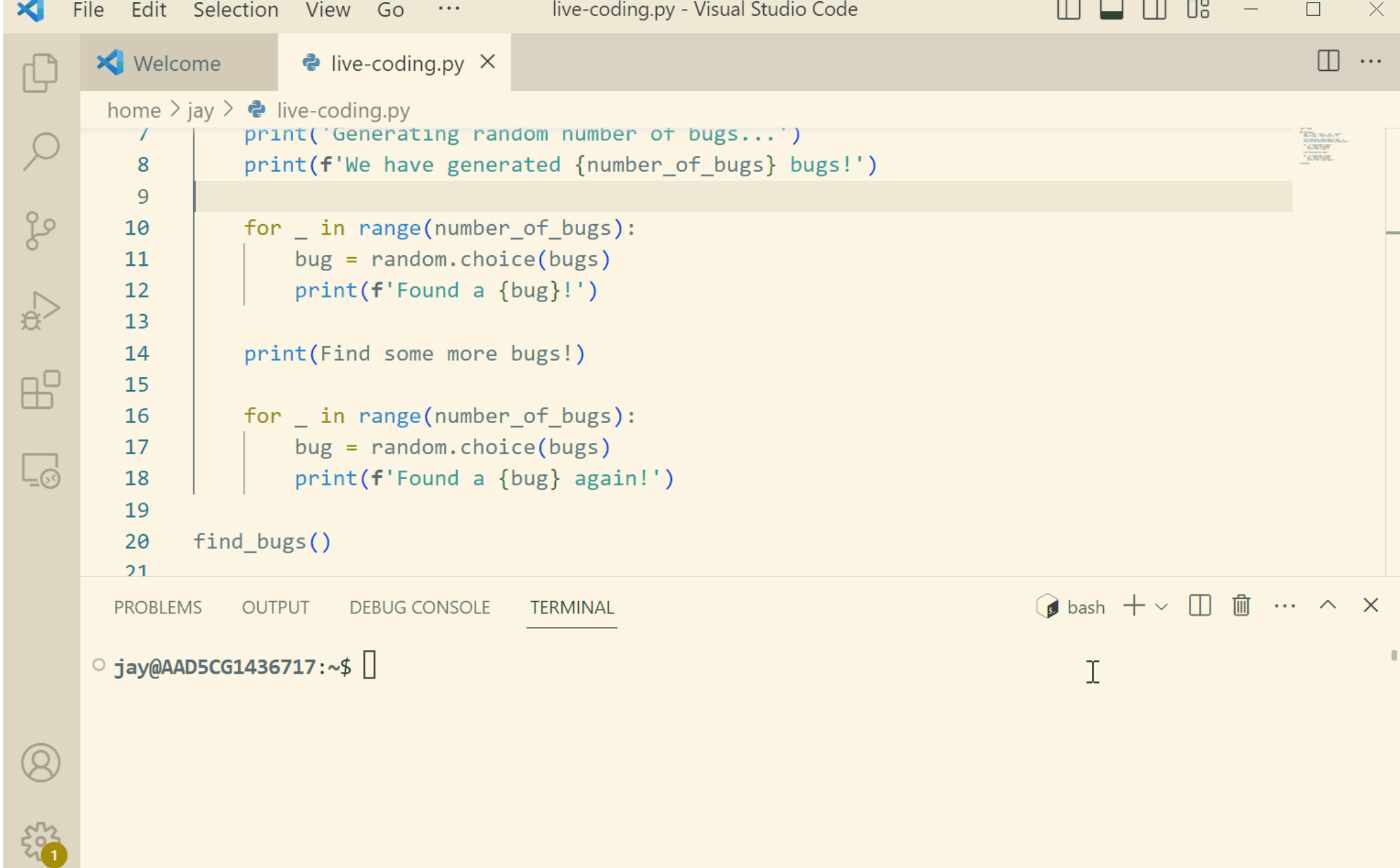
```
import sys

def main():
    print("Hello World")

sys.exit(0)
```

Understand the process

“I’ve done that!”



Discovery-based learning

guidance
*some assembly required¹

1. Friesen, S. and Scott, D., 2013. Inquiry-based learning: A review of the research literature. *Alberta Ministry of Education*, 32, pp.1-32.

"Just-in-time [...] models of expert performance for students to emulate"²

2. Hmelo-Silver, C.E., Duncan, R.G. and Chinn, C.A., 2007. Scaffolding and achievement in problem-based and inquiry learning: a response to Kirschner, Sweller, and Clark. *Educational psychologist*, 42(2), pp.99-107.



Not without limitations

Where it works best



The Carpentries³

3. <https://carpentries.org/>

Embrace best practice⁴

4. Nederbragt, A., Harris, R.M., Hill, A.P. and Wilson, G., 2020. Ten quick tips for teaching with participatory live coding. *PLOS Computational Biology*, 16(9), p.e1008090.

Thanks!