

Python Tutor: Visualize code in Python, JavaScript, C, C++, and Java

Python 3.6
[known limitations](#)

```
1 classes = {"ICT 102": 3, "ICT 103": 3, "ICT 112": 3, "I
2 grades = []
3
4 for subject, credits in classes.items():
5     grade = 1
6     grades.append((credits, grade))
7
8 # Print the result of the zip operation
9 zipped_result = list(zip(classes.keys(), grades))
10 print(zipped_result)
11
12 for subject, (credits, grade) in zipped_result:
13     print(f"Subject: {subject}, Credits: {credits}, Gra
```

line that just executed

next line to execute

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Done running (31 steps)

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Print output (drag lower right corner to resize)

Subject: ICT 103, Credits: 3, Grade: 1
Subject: ICT 112, Credits: 3, Grade: 1
Subject: ICT 209, Credits: 3, Grade: 1
Subject: ITE 201, Credits: 3, Grade: 1

Frames

Objects

Global frame

classes

grades

subject

credits

grade

zipped_result

dict

"ICT 102" 3

"ICT 103" 3

"ICT 112" 3

"ICT 209" 3

"ITE 201" 3

list

0 1 2 3 4

tuple

0 1 3 1

tuple

0 1 3 1

tuple

0 1 3 1

tuple

0 1 3 1

tuple

0 1 3 1

list

0 1 2 3 4

tuple

0 1 "ICT 102"

tuple

0 1 "ICT 103"

tuple

0 1 "ICT 112"

tuple

0 1 "ICT 209"

tuple

0 1 "ITE 201"

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2 Easy Steps

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