Functions Quiz

7 out of 7 correct

1.

What does the lambda function in Python do?

creates an infinite loop

creates a named function

creates an anonymous function

None of the above

Explanation: A lambda function is an anonymous function in Python, meaning that it is a small, one-line function that doesn't have a name. They are used to create small, throw-away functions that are used for a limited time.

2.

What does the map function in Python do?

returns the first element in a list

applies a function to each element in a list and returns a list of the results

returns the last element in a list

None of the above

Explanation: The map function in Python takes a function and an iterable as arguments and returns a new iterable with the function applied to each element. The result is a list of the results, which can be used for further processing.

3.

What does the reduce function in Python do?

applies a function to each element in a list and returns a list of the results

applies a function cumulatively to elements of an iterable, from left to right

returns the first element in a list

None of the above

Explanation: The reduce function in Python takes a function and an iterable as arguments and applies the function cumulatively to the elements of the iterable. The result is a single value, which is the final result of the reduction.

4.

What does the filter function in Python do?

returns a filtered list of elements that satisfy a condition

returns the first element in a list

returns the last element in a list

None of the above

Explanation: The filter function in Python takes a function and an iterable as arguments and returns a new iterable with only the elements that satisfy the condition specified by the function. The result is a filtered list of elements that satisfy the condition.

5.

What is the output of the following code?

numbers = [1, 2, 3, 4, 5]

squared_numbers = map(lambda x: x**2, numbers)

print(list(squared_numbers))

[0, 1, 4, 9, 16]

[2, 4, 6, 8, 10]

[1, 4, 9, 16, 25]

None of the above

Explanation: In this code, the map function is applied to each element in the list "numbers" using the lambda function, which squares each element. The result is a list of squared numbers, which is [1, 4, 9, 16, 25].

6.

What is the output of the following code?

from functools import reduce

numbers = [1, 2, 3, 4, 5]

product = reduce(lambda x, y: x*y, numbers)

print(product)

120

30

15

None of the above

Explanation: In this code, the reduce function is applied to the list "numbers" using the lambda function, which multiplies two elements. The result is the product of all elements in the list, which is 120.

7.

What is the output of the following code?

numbers = [1, 2, 3, 4, 5]

even_numbers = filter(lambda x: x%2 == 0, numbers)

print(list(even_numbers))

[2, 4]

[1, 3, 5]

[1, 2, 3, 4, 5]

None of the above

Explanation: In this code, the filter function is applied to the list "numbers" using the lambda function, which checks if each element is even. The result is a filtered list of even numbers, which is [2, 4].
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