

AI Usage Report

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For the Individual assignment I used the assistance of GPT 3.5 in order to improve performance of my code by asking what could be a more efficient data structure or what is a faster hashing algorithm(since my implementation uses hashing)



You

fastest hash algorithm in default python



ChatGPT

In Python, the `hash()` function is available as a built-in method for computing hash values. The specific hash algorithm used by `hash()` can vary between different Python implementations and versions. In CPython (the default and most widely used Python interpreter), the algorithm is generally a combination of a randomized hash function and a secret seed value that changes between interpreter runs. The choice of the underlying hash function might be updated in future Python releases for security and efficiency reasons.

It's important to note that the primary purpose of the `hash()` function in Python is to provide a fast and reasonably distributed hash value for use in hash-based data structures like dictionaries and sets. However, it is not designed to be a cryptographic hash function.

GPT 3.5 was also used to find out which data structure are appropriate for my situation



You

data structures that do not allow duplicates and have no order python



ChatGPT

In Python, the data structure that does not allow duplicates and has no inherent order is a `set`. A set is an unordered collection of unique elements. Here are some characteristics of Python sets:

1. **Unordered:** Elements in a set do not have a specific order, and you cannot access them by index.
2. **Unique Elements:** Sets automatically eliminate duplicate elements. If you attempt to add an element that already exists in the set, it won't create a duplicate.

Here's an example of using a set:

python

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```
my_set = {1, 2, 3, 4, 5, 1, 2} # Duplicates are automatically removed

print(my_set) # Output: {1, 2, 3, 4, 5}
```

GPT 3.5 was used to find out the specifics of how some functions work



You

does frozenset remove duplicates



ChatGPT

Yes, `frozenset` in Python does remove duplicates. A `frozenset` is an immutable version of a set, and it represents an unordered collection of unique elements. When you create a `frozenset` from an iterable, it automatically removes any duplicate elements, preserving only the unique elements.

Here's an example:

python

Copy code

```
my_list = [1, 2, 3, 1, 2, 4, 5]

my_frozenset = frozenset(my_list)

print(my_frozenset)
```

I tried to use GPT 3.5 to find out errors in the code when it did not work correctly, but unfortunately it is not helpful in these cases since it gives solutions that are not always tangent to your problem.