Python Dictionary Navigation Tools

Certainly! Here are some commonly used tools and techniques to navigate dictionaries and arrays in Python, along with examples:

1. Accessing Dictionary Values:

- Use square brackets (`[]`) with the key to access the corresponding value.

Example:

--------------------------------------------------python

my\_dict = {"name": "John", "age": 30, "city": "New York"}

print(my\_dict["name"]) # Output: John

--------------------------------------------------

2. Accessing Array (List) Elements:

- Use square brackets (`[]`) with the index to access a specific element in the list. The index starts from 0 for the first element.

Example:

--------------------------------------------------python

my\_list = ["apple", "banana", "cherry"]

print(my\_list[1]) # Output: banana

--------------------------------------------------

3. Iterating Over Dictionary Items:

- Use a `for` loop with the `.items()` method to iterate over key-value pairs in a dictionary.

Example:

--------------------------------------------------python

my\_dict = {"name": "John", "age": 30, "city": "New York"}

for key, value in my\_dict.items():

print(key, value)

--------------------------------------------------

Output:

--------------------------------------------------

name John

age 30

city New York

--------------------------------------------------

4. Iterating Over Array (List) Elements:

- Use a `for` loop to iterate over elements in an array.

Example:

--------------------------------------------------python

my\_list = ["apple", "banana", "cherry"]

for item in my\_list:

print(item)

--------------------------------------------------

Output:

--------------------------------------------------

apple

banana

cherry

--------------------------------------------------

5. Checking Key Existence in a Dictionary:

- Use the `in` keyword to check if a key exists in a dictionary.

Example:

--------------------------------------------------python

my\_dict = {"name": "John", "age": 30, "city": "New York"}

if "age" in my\_dict:

print("Age exists in the dictionary.")

--------------------------------------------------

6. Checking Element Existence in an Array:

- Use the `in` keyword to check if an element exists in an array.

Example:

--------------------------------------------------python

my\_list = ["apple", "banana", "cherry"]

if "banana" in my\_list:

print("Banana exists in the list.")

--------------------------------------------------