Bing

Sure, here are some examples of how to use each container type in Python:

• List: A list is a mutable, ordered sequence of items that can be of different types. You can create a list by enclosing the items in square brackets, separated by commas. You can access the items by their index, starting from zero. You can also modify, add, or remove items from a list using methods like append, insert, pop, etc.

```
# Create a list of fruits
fruits = ["apple", "banana", "orange", "grape"]
# Print the list
print(fruits)

# Access the second item
print(fruits[1])

# Change the fourth item
fruits[3] = "cherry"

# Add a new item at the end
fruits.append("mango")

# Remove the first item
fruits.pop(0)

# Print the updated list
print(fruits)
```

• Tuple: A tuple is an immutable, ordered sequence of items that can be of different types. You can create a tuple by enclosing the items in parentheses, separated by commas. You can access the items by their index, starting from zero. You cannot modify, add, or remove items from a tuple.

```
# Create a tuple of coordinates
coordinates = (10, 20, 30)

# Print the tuple
print(coordinates)

# Access the third item
print(coordinates[2])

# Try to change the first item (will raise an error)
coordinates[0] = 40
```

• Dictionary: A dictionary is a mutable, unordered collection of key-value pairs, where each key is unique and hashable. You can create a dictionary by enclosing the key-value pairs in curly braces, separated by commas. You can access the values by their keys using square brackets or the get

method. You can also modify, add, or remove key-value pairs from a dictionary using methods like update, pop, etc.

```
# Create a dictionary of student grades
grades = {"Alice": 90, "Bob": 80, "Charlie": 85}

# Print the dictionary
print(grades)

# Access the value for Bob
print(grades["Bob"])

# Change the value for Charlie
grades["Charlie"] = 95

# Add a new key-value pair for David
grades["David"] = 88

# Remove the key-value pair for Alice
grades.pop("Alice")

# Print the updated dictionary
print(grades)
```

Some references for more information are:

- What exactly are "containers" in python? (And what are all the python container types?) Stack Overflow
- collections Container datatypes Python 3.11.4 documentation
- Python Collections Module GeeksforGeeks
- 3. Data model Python 3.11.4 documentation

I hope this helps.