**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  
**Topic 27 - Dictionaries: How to Retrieve Information**  
**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Accessing Values in a Python Dictionary**

In the previous chapter, we created a dictionary called customer\_29876:

python

Copy code

customer\_29876 = {

"first name": "David",

"last name": "Elliott",

"address": "4803 Wellesley St."

}

The dictionary contains three *key-value* pairs:

* **Key**: "first name" | **Value**: "David"
* **Key**: "last name" | **Value**: "Elliott"
* **Key**: "address" | **Value**: "4803 Wellesley St."

A dictionary is designed to store information that you can retrieve later by using specific keys.

**How to Retrieve Information from a Dictionary**

To access information from a dictionary, use the **key** associated with the information you want. Here’s how it works:

**Example: Retrieving a Customer’s Address**

Suppose we want to find the address for customer\_29876:

python

Copy code

address\_of\_customer = customer\_29876["address"]

In this code, Python finds the **value** for the key "address" in the customer\_29876 dictionary and assigns it to the variable address\_of\_customer.

* **Key**: "address" → **Value**: "4803 Wellesley St."

Now, if you print address\_of\_customer:

python

Copy code

print(address\_of\_customer)

Python will display:

yaml

Copy code

4803 Wellesley St.

**Differences Between Lists and Dictionaries**

In a **list**, you access an element by its **index**:

python

Copy code

city\_to\_check = cities[3] # Accessing the 4th item in the list (index 3)

In a **dictionary**, you access a **value** by using its **key**:

python

Copy code

address\_of\_customer = customer\_29876["address"] # Accessing value using the key "address"

This is the primary difference between lists and dictionaries when it comes to retrieving information.

**Flexible Key and Value Types**

In our example, the key ("address") and value ("4803 Wellesley St.") are both **strings**. However, keys and values in dictionaries don’t have to be strings—they can be other types as well, as we’ll explore in later lessons.