**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Topic 29 - Adding Items to Python Dictionaries**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**What**

In Python dictionaries, you can add new **key-value pairs** to expand the information stored. Dictionaries hold data in pairs (like "first name": "David") and let you easily add new pairs by specifying a **key** and assigning it a **value**.

**Why**

Adding key-value pairs allows you to dynamically grow the dictionary’s data set without needing to redefine it. This is especially useful when you're handling data that evolves, like user profiles, where new information (e.g., location or preferences) can be added as needed.

**How**

To add a new key-value pair to an existing dictionary, follow these steps:

1. **Specify the dictionary name**.
2. **Set the key in square brackets** [].
3. **Assign a value** to this key.

Example: Suppose we have a dictionary customer\_29876:

python

Copy code

customer\_29876 = {

"first name": "David",

"last name": "Elliott",

"address": "4803 Wellesley St."

}

To add a city, we can write:

python

Copy code

customer\_29876["city"] = "Toronto"

After adding, customer\_29876 now includes:

python

Copy code

{

"first name": "David",

"last name": "Elliott",

"address": "4803 Wellesley St.",

"city": "Toronto"

}

**Defining an Empty Dictionary**

To create a dictionary with no key-value pairs, write:

python

Copy code

things\_to\_remember = {}

Then, add pairs one at a time:

python

Copy code

things\_to\_remember[0] = "the lowest number"

things\_to\_remember["a dozen"] = 12

**Summary**

Adding items to a dictionary lets you easily update its data. You can start with a dictionary full of key-value pairs or an empty one, adding new items as necessary to store and update information flexibly.

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**