Dictionary Exercises

Exercise 1: Write a program to check whether a given key exists in a dictionary or not.
Given dict = {‘0’:1, ‘1’:2, ‘2’:3}
Input: Enter value to check: 2
Expected output: True
Exercise 2: Write a program to iterate over dictionary items using for loop.
dict = {0:”Value 1″, 1:”Value 2″}
Expected output
Value of key 0 is Value 1
Value of key 1 is Value 2
Exercise 3. Create a dictionary 'ODD' of odd numbers between 1 and 10, where the key is the decimal number and the value is the corresponding number in words. Perform the following operations on this dictionary :

Display the keys

Display the values

Display the items

Find the length of the dictionary

Check if 7 is present or not

Check if 2 is present or not

Retrieve the value corresponding to the key 9

Delete the item from the dictionary corresponding to the key 9

Exercise 4: Write a program to print values of dictionary.
dict = {0:”Value 1″, 1:”Value 2″, 2:”Value 3″}
Expected output
dict_values([‘Value 1’, ‘Value 2’, ‘Value 3’])
Exercise 5: Write a program in python to map 2 lists into a dictionary.
Given keys = [1,2,3] values = [‘Value 1’, ‘Value 2’, ‘Value 3’]
Expected output
{1: ‘Value 1’, 2: ‘Value 2’, 3: ‘Value 3’}
Exercise 6: Write a program to concatenate two dictionaries to create one.
Given dict1 = {‘key 1’: 2, ‘key 2’: 3}
dict2 = {‘key 3’: 4, ‘key 4’: 5}
Expected output
{‘key 1’: 2, ‘key 2’: 3, ‘key 3’: 4, ‘key 4’: 5}
Exercise 7: Write a program to sum all the values of a dictionary.
dict1 = {‘key 1’: 200, ‘key 2’: 300}
Expected output
Result: 500
Exercise 8: Write a program to get the maximum and minimum value of dictionary.
dict1 = {‘key 1’: 200, ‘key 2’: 300}

Expected output
Max: 300
Min: 200

Exercise 9: Write a program to check whether a key exists in the dictionary or not.

dict1 = {‘key 1’: 22, ‘key 2’: 301}

Expected output

Key exists in dictionary

Exercise 10. Write a program to convert a number entered by the user into its corresponding number in words. For example, if the input is 876 then the output should be 'Eight Seven Six'. (Hint. use dictionary for keys 0-9 and their values as equivalent words.)

Exercise 11. Write a program that repeatedly asks the user to enter product names and prices. Store all of these in a dictionary whose keys are the product names and whose values are the prices. When the user is done entering products and prices, allow them to repeatedly enter a product name and print the corresponding price or a message if the product is not in the dictionary.

Dictionary Functions in Python

Python provides several built-in functions for working with dictionaries.
Here are some dictionary functions in python :

- **len(dict):** Returns the length (i.e., the number of key-value pairs) of the dictionary.
-
- **dict[key]:** Returns the value associated with the specified key. If the key is not found, a KeyError is raised.
- **dict.get(key, default=None):** Returns the value associated with the specified key, or the default value if the key is not found. If the default parameter is not specified, it defaults to None.
- **dict.keys():** Returns a list of all the keys in the dictionary.
- **dict.values():** Returns a list of all the values in the dictionary.
- **dict.items():** Returns a list of all the key-value pairs in the dictionary, as tuples.
- **dict.clear():** Removes all key-value pairs from the dictionary.
- **dict.pop(key, default=None):** Removes the key-value pair with the specified key from the dictionary and returns the value. If the key is not found and the default is not specified, a KeyError is raised.
- **dict.popitem():** Removes and returns an arbitrary key-value pair from the dictionary. If the dictionary is empty, a KeyError is raised.
- **dict.update(other_dict):** Updates the dictionary with key-value pairs from another dictionary. If a key exists in both dictionaries, the value in the other dictionary overwrites the value in the original dictionary.