Assignment-2: List | Tuples | Dictionaries

Submitted By : Mayur Gadhave

Fun with Lists and Tuples

Write a Python program to get a list, sorted in increasing order by the last element in each tuple from a given list of non-empty tuples

Solution without user input :

In [1]:

```python
# Define a function to get the last element of a tuple
def get_last_element(tuple):
    return tuple[-1]

# Create a list of tuples
sample_list = [(2, 5), (1, 2), (4, 4), (2, 3), (2, 1)]

# Sort the list based on the last element of each tuple, using the get_last_element funct
sorted_list = sorted(sample_list, key=get_last_element)

# Print the sorted list
print(sorted_list)
```

[(2, 1), (1, 2), (2, 3), (4, 4), (2, 5)]

Solution by taking user input

In [2]:

```python
# Define a function to get the last element of a tuple
def get_last_element(tuple):
    return tuple[-1]

# Take user input to create a list of tuples
n = int(input("Enter the number of tuples: "))
sample_list = []
for i in range(n):
    tuple_input = input("Enter tuple (space-separated elements): ")
    tuple_elements = tuple(map(int, tuple_input.split()))
    sample_list.append(tuple_elements)

# Sort the list based on the last element of each tuple, using the get_last_element funct
sorted_list = sorted(sample_list, key=get_last_element)

# Print the sorted list
print(sorted_list)
```

```
Enter the number of tuples: 5
Enter tuple (space-separated elements): 2 5
Enter tuple (space-separated elements): 1 2
Enter tuple (space-separated elements): 4 4
Enter tuple (space-separated elements): 2 3
Enter tuple (space-separated elements): 2 1
[(2, 1), (1, 2), (2, 3), (4, 4), (2, 5)]
```

Make Your Own mini-Dictionary

Write a Python program to print a dictionary whose keys should be the alphabet from a-z and the value should be corresponding ASCII values

In [3]:

```python
# Create an empty dictionary to store the alphabet and ASCII values
ascii_dict = {}

# Iterate over the range of ASCII values for lowercase alphabets from 'a' to 'z'
# ord('a') returns the ASCII value for 'a' and ord('z') returns the ASCII value for 'z'
for letter in range(ord('a'), ord('z') + 1):
    # Use chr() function to convert the ASCII value back to the corresponding letter
    # Assign the letter as the key and its ASCII value as the value in the dictionary
    ascii_dict[chr(letter)] = letter

# Print the dictionary containing the alphabet and corresponding ASCII values
print(ascii_dict)
```

```
{'a': 97, 'b': 98, 'c': 99, 'd': 100, 'e': 101, 'f': 102, 'g': 103, 'h': 1
04, 'i': 105, 'j': 106, 'k': 107, 'l': 108, 'm': 109, 'n': 110, 'o': 111,
'p': 112, 'q': 113, 'r': 114, 's': 115, 't': 116, 'u': 117, 'v': 118, 'w':
119, 'x': 120, 'y': 121, 'z': 122}
```

In [ ]: