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from py2 import list_example

while True:
    print("*****__LAB EXERCISE
2_*****")
    print("\n 1 -> List ")
    print("\n 2 -> Dictionaries")
    print("\n 3 -> Exit.")
    print("*****")
    choice = int(input("\n\nEnter your choice : "))
    if (choice == 1):
        my_list = []
        my_list.append("01")
        my_list.append("arigato")
        my_list.append("Computer Science")
        my_list.append("MCA")
        my_list.append("8.5 GPA")
        my_list.append("8417962000")
        my_list.append("90%")
        my_list.append("anshbhandari.13@gmail.com")
        my_list.append("Male")

        print("List:", my_list)

        my_list.insert(1, "Ansh Bhandari")
        my_list.insert(7, "HOD")

        print("List:", my_list)

        dic = {
            'address': '2nd Cross S.G Palya',
            'city': 'Bangalore',
            'zipcode': '560029'
        }

        my_list.extend(['INDIA', 'User'])
        my_list.extend(list(dic.keys()))

        print("List:", my_list)

    if __name__ == "__main__":
        list_example()

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my_list = [132, 22, 863, 426, 519]
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first_element = my_list[0]
last_element = my_list[-1]
my_list[0] = last_element
my_list[-1] = first_element
print(my_list)
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def sum_of_digits(list_of_numbers):
    sum_of_digits = 0
    for number in list_of_numbers:
        sum_of_digits += number
    return sum_of_digits
print(sum_of_digits(my_list))
```

```
def smallest_element(list_of_numbers):
    smallest_element = list_of_numbers[0]
    for number in list_of_numbers:
        if number < smallest_element:
            smallest_element = number
    return smallest_element
```

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print(smallest_element(my_list))
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# Sort the dictionaries in ascending order based on the Key of the dictionary.
# Create the dictionary with Numeric as Value in Key - Value pair and find the
sum of all the values in the Dictionary.
# Write a Python code to demonstrate the sorting in descending order of values
with lambda function
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elif (choice == 2):
    my_dict = {"one": 1, "two": 2, "three": 3, "four": 4, "five": 5}
    sorted_dict = sorted(my_dict.items(), key=lambda x: x[0])
    print("Dictionary sorted in ascending order based on keys:", sorted_dict)
```

```
my_dict = {"one": 1, "two": 2, "three": 3, "four": 4, "five": 5}
sum_of_values = sum(my_dict.values())
print(" Sum of all values in the dictionary:", sum_of_values)
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my_dict = {"one": 1, "two": 2, "three": 3, "four": 4, "five": 5}
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        sorted_dict_descending = sorted(my_dict.items(), key=lambda x: x[1],
reverse=True)
        print("Descending Order :",sorted_dict_descending)

    elif choice == 3:
        break
    else:
        print("\nInvalid Input : Please try again")

```

Screenshots:

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*****_LAB EXERCISE 2_*****

1 -> List
2 -> Dictionaries
3 -> Exit.
*****

Enter your choice : 1
List: ['01', 'arigato', 'Computer Science', 'MCA', '8.5 GPA', '8417962000', '90%', 'anshbhandari.13@gmail.com', 'Male']
List: ['01', 'Ansh Bhandari', 'arigato', 'Computer Science', 'MCA', '8.5 GPA', '8417962000', 'HOD', '90%', 'anshbhandari.13@gmail.com', 'Male']
List: ['01', 'Ansh Bhandari', 'arigato', 'Computer Science', 'MCA', '8.5 GPA', '8417962000', 'HOD', '90%', 'anshbhandari.13@gmail.com', 'Male', 'INDIA', 'User', 'address', 'city', 'zipcode']
List: ['01', 'arigato', 'Computer Science', 'MCA', '8.5 GPA', '8417962000', '90%', 'anshbhandari.13@gmail.com', 'Male']
List: ['01', 'Ansh Bhandari', 'arigato', 'Computer Science', 'MCA', '8.5 GPA', '8417962000', 'HOD', '90%', 'anshbhandari.13@gmail.com', 'Male']
List: ['01', 'Ansh Bhandari', 'arigato', 'Computer Science', 'MCA', '8.5 GPA', '8417962000', 'HOD', '90%', 'anshbhandari.13@gmail.com', 'Male', 'INDIA', 'User', 'address', 'city', 'zipcode']
[519, 22, 863, 426, 132]

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[59, 2, 63, 46, 13]
183
2
Dictionary sorted in ascending order based on keys: [('five', 5), ('four', 4), ('one', 1), ('three', 3), ('two', 2)]
Sum of all values in the dictionary: 15
[('five', 5), ('four', 4), ('three', 3), ('two', 2), ('one', 1)]
*****_LAB EXERCISE 2_*****

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*****_LAB EXERCISE 2_*****

1 -> List
2 -> Dictionaries
3 -> Exit.
*****

Enter your choice : 2
Dictionary sorted in ascending order based on keys: [('five', 5), ('four', 4), ('one', 1), ('three', 3), ('two', 2)]
Sum of all values in the dictionary: 15
Descending Order : [('five', 5), ('four', 4), ('three', 3), ('two', 2), ('one', 1)]
*****_LAB EXERCISE 2_*****

1 -> List
2 -> Dictionaries
3 -> Exit.
*****

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*****_LAB EXERCISE 2_*****
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```
1 -> List
```

```
2 -> Dictionaries
```

```
3 -> Exit.
```

```
*****
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```
Enter your choice : 3
```

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PS E:\Ansh\MCA\1 TRI\Python> █
```