PYTHON LAB EXERCISE 2

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1.PROGRAM

```
railways_system = []

railways_system.append("Train A")

railways_system.insert(0, "Train B")

new_trains = ["Train C", "Train D"]
railways_system.extend(new_trains)

extra_trains = ["Train E", "Train F"]
railways_system += extra_trains

print(railways_system)
```

OUTPUT:

['Train B', 'Train A', 'Train C', 'Train D', 'Train E', 'Train F']

2. PROGRAM

```
list = [1, 2, 3, 4, 5]

def swap_list_ele(last):
     first = last[0]
     last[0] = last[-1]
     last[-1] = first
     return last
print("After Swapping : ",swap_list_ele(list))

def sum_of_list(numlist):
     sum=0
     for singleElement in numlist:
         sum+=singleElement
     print("The Sum is : ",sum)
sum_of_list(list)

def min_ele(lst):
```

```
    min = lst[0]
    for n in lst[1:]:
        if n < min:
            min = n
    return min
print("The Smallest is :")
print(min_ele(list))
```

OUTPUT:

After Swapping : [5, 2, 3, 4, 1]

The Sum is : 15

The Smallest is :

1

3. PROGRAM

```
mydict={'a': 1, 'b': 2, 'c': 3,'s': 19, 'l': 12, 'z': 26,'h': 8}
keys= list(mydict.keys())
keys.sort()
new_dict = dict(sorted(mydict.items(),key=lambda item : item[0]))
print(new_dict)

sum=0
print(mydict.items())
for key,val in mydict.items():
    sum+=val
    print(val)
print("Sum : ",sum)

def sort_by_value(d):
    items = list(d.items())
    items.sort(key=lambda x: x[1], reverse=True)
    return dict(items)
print()
print(sort_by_value(mydict))
```

OUTPUT:

{'a': 1, 'b': 2, 'c': 3, 'h': 8, 'l': 12, 's': 19, 'z': 26}

dict_items([('a', 1), ('b', 2), ('c', 3), ('s', 19), ('l', 12), ('z', 26), ('h', 8)])

1

2

3

19

12

26

8

Sum : 71

{'z': 26, 's': 19, 'l': 12, 'h': 8, 'c': 3, 'b': 2, 'a': 1}