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BS Maths
Batch 2021
DSA LAB 01

PYTHON CODE :
```python
rivers = [
{"name": "Nile", "length": 4157},
{"name": "Yangtze", "length": 3434},
{"name": "Murray-Darling", "length": 2310},
{"name": "Volga", "length": 2290},
{"name": "Mississippi", "length": 2540},
{"name": "Amazon", "length": 3915}
]


#Lab Task 01:


for names in rivers:
    print("name of rivers are",names["name"])




count=0

for total_length in rivers:

    total_length["length"]
    count = count + total_length["length"]
print("total length is",count)




for river_name in rivers:
    if river_name["name"].startswith("M"):
        print("river name with M are",river_name["name"])




for length_river in rivers:
    new_length = length_river["length"]*1.6
    print("new length in km are",new_length)
```

#Lab Task 02:

```python
List_1 = [1.0, 2.0, 4.5]
```

```
List_2 = [2.0, 4.5, 5.0]



my_list=[]
for element in List_1:
    if element  in List_2 and element not in my_list:
        my_list.append(element)
print("Overlap are",my_list)



my_list1=[]
for ele in List_1:
    if ele not in List_2 :
        my_list1.append(ele)
    elif ele in List_2:
        my_list1.append(ele)
    else:
        print("repeated object")

for ele in List_2:
    if ele not in List_1 :
        my_list1.append(ele)
    else:
        print("repeated object")

print("distinct objects are",my_list1)
```

Screenshot:

```
=============== RESTART: C:/Program Files/Python310/long_rivers.py
name of rivers are Nile
name of rivers are Yangtze
name of rivers are Murray-Darling
name of rivers are Volga
name of rivers are Mississippi
name of rivers are Amazon
total length is 18646
river name with M are Murray-Darling
river name with M are Mississippi
new length in km are 6651.200000000001
new length in km are 5494.400000000001
new length in km are 3696.0
new length in km are 3664.0
new length in km are 4064.0
new length in km are 6264.0
Overlap are [2.0, 4.5]
repeated object
repeated object
distinct objects are [1.0, 2.0, 4.5, 5.0]
```