Московский государственный технический университет им. Н.Э.Баумана

Отчет по лабораторной работе № 1 по курсу “Разработка интернет-приложений”

«Введение в python»

ИСПОЛНИТЕЛЬ:

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(подпись)

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arr_algs.py

```
#Short function min:
def findMin(arr):
    return min(arr)

#Long function min:
def findMinimum(arr):
    minimum = arr[0]
    for i in range(len(arr)):
        if minimum > arr[i]:
            minimum = arr[i]
    return minimum

#function average_arifm:
def averageArifm(arr):
    sumAll = 0
    for i in range(len(arr)):
        sumAll += arr[i]
    return sumAll/len(arr)

mas = [100, 23, 76, 44, 123, 214, 32, 888]
print("FIND MIN:")
print("      Min element(calculated with SHORT func):", findMin(mas))
print("      Min element(calculated with LONG func):", findMinimum(mas))
print("FIND AVERAGE:")
print("      Average arifmetics:", averageArifm(mas))
input()
```

Результат:

```
FIND MIN:
23
FIND AVERAGE:
79
```

dict_algs.py

```python
#Workers with kids older 18 years func:
def findWorkers(allWorkers, age_of_child):
    filtered = []
    for worker in allWorkers:
        for i in range(len(worker['children'])):
            if worker['children'][i]['age'] > age_of_child:
                filtered.append(worker['name'])
                break
    return filtered


ivan = {
    "name": "Ivan",
    "age": 31,
    "children": [{
        "name": "Vasja",
        "age": 12,
    }, {
        "name": "Petja",
        "age": 10,
    }]
}
darja = {
    "name": "Darja",
    "age": 41,
    "children": [{
        "name": "Kirill",
        "age": 21,
    }, {
        "name": "Pavel",
        "age": 15,
    }]
}

emps = [ivan, darja]

findWorkers(emps, 18)

print("Workers, who entered the filtration: ")
print( findWorkers(emps, 18) )

input()

```

Результат:
```
Kirill
```

str_algs.py

```
#Inverse string func:
def invertStr(sent):
    sent2 = ""
    for i in range(len(sent)):
        sent2 += sent[len(sent) - (i+1)]
    sent = sent2
    return sent

sen = "Hello, world!"
print("Original sentence: ", sen)
print("After invert: ", invertStr(sen))
input()
```

Результат:

```
Hello world
dlrow olleH
>>>
```