

Homework2:

October 31, 2020

```
[9]: # Exercise 1: Take input one number. Find average off all numbers between zero
    ↪ and
    #number inclusive(First method)

    number = int(input('enter the number: '))
    sum = 0
    for odd in range(1, number + 1, 2):
        sum = sum + odd
        total_len = len(range(1, number + 1, 2))
        average = (sum / total_len)
        print(odd)
    print('The average is:', average)
```

enter the number: 9

1
3
5
7
9

The average is: 5.0

```
[12]: # second method
    number = int(input('number '))
    sum = 0
    for num in range(1, number + 1):
        if num % 2:
            sum = sum + num
            length = len(range(1, number + 1, 2))
            average = sum / length
            print(num)
    print('The average is:', average)
```

number 7

1
3
5
7

The average is: 4.0

```
[11]: # Third method
number = int(input('number '))
sum = 0
num = 1
while num in range(1, number + 1):
    sum = sum + num
    num = num + 2
average = sum / len(range(1, number + 1, 2))
print('The average is:', average)
```

number 7
The average is: 4.0

```
[13]: #Exercise 2: Take input one number. Find the Fibonacci numbers between zero and
↪number.
```

```
fibonacci_element =int(input("Enter the terms: "))
first_number = 0
second_number = 1
print(first_number)
print(second_number)
for number in range(2, fibonacci_element):
    next_number = first_number + second_number
    print( next_number)
    first_number = second_number
    second_number = next_number
```

Enter the terms: 8
0
1
1
2
3
5
8
13

```
[17]: #Exercise 3: Suppose you are the accountant of a renowned company.
#All of a sudden, company CEO wants you to find out average salary of the
↪employee's
#salary in June. Hints: Salaries of all employee in June are stored in a list
↪called
#june_salary = [5000, 4000, 7000, 800, 1000, 6000, 75000].

salary_input = input('enter salary separated by space')
```

```

june_salary = salary_input.split()
sum = 0
for salary in june_salary:
    sum = sum + int(salary)
length = len(june_salary)
average_salary = sum / length
print('The average salary is:', average_salary)

```

enter salary separated by space 5000 4000 7000 800 1000 6000 75000
The average salary is: 14114.285714285714

```

[14]: #Exercise 4
person_name = input('enter your name:')
diseases_name = input('enter disease name:')
disease_fresh_air = ['headache', 'fever', 'running nose']
disease_bath = ['tiredness', 'sleeplessness']

if diseases_name in disease_fresh_air:
    print('go to outside and take some fresh air')
elif diseases_name in disease_bath:
    print('take a long bath and sleep')
else:
    print('unkown')
print('Hellow', person_name, 'thank you visit us')

```

enter your name: faria
enter disease name: tiredness
take a long bath and sleep
Hellow faria thank you visit us

```

[15]: city_name = input(' enter desired city name: ')
city_temperature = input(' enter city temperature by space: ')
temperature_in_split = city_temperature.split()
sum = 0
for temperature in temperature_in_split:
    sum = sum + int(temperature)
    average = sum / len(temperature_in_split)
if 15 < average < 40 :
    print('visit the city:')
    print('the average temperature is:', average)
else:
    print("don't visit the city")

```

enter desired city name: munich
enter city temperature by space: 43 23 34 33 32
visit the city:
the average temperature is: 33.0

[16]: *#Exercise 7*

```
expense_input = input(' enter monthly expense separated by space: ')
expense = expense_input.split()
income_input = input('enter monthly income separated by space : ')
income = income_input.split()
total_income = 0
for monthly_income in income:
    total_income = total_income + int(monthly_income)
total_expense = 0
for monthly_expense in expense:
    total_expense = total_expense + int(monthly_expense)
balance = total_income - total_expense
while balance > 0:
    print('positive balance', balance)
    break
while balance < 0:
    print('negative balance & the balance is:', balance)
    break
```

```
enter monthly expense separated by space: 56 76 88 90
enter monthly income separated by space : 45 77 87 99
negative balance & the balance is: -2
```

[]: *#Exercise 6:*

```
calculator_function = ['addition', 'subtraction', 'multiplication', 'division']
execute_function = input('enter function name: ')
if execute_function in calculator_function:
    number1 = int(input('number'))
    number2 = int(input('number'))    #can't solve
```