

LAB Assignment

Problem 1.: Write a script to find the factors of any given number

Task - Name the script as - `*number_factors.py*` . The script takes number using `input()`. The script creates the list of factors using remainder function and `*for*` loop.

```
$ number_factors.py
```

```
Enter Integer: 100
```

```
The factors of 100 are: [1, 2, 5, 10, 20, 25, 50, 100]
```

LAB Assignment (Cont ...)

Problem 2.: Write a script to find the Highest Common Factor (HCF) of any number of integers

Task - Name the script as - `*hcf_numbers.py*` . The script takes number using `input()`. The script creates the list of factors using remainder function and `*for*` loop.

\$ How many numbers: 3

Enter one number on each line below

5

10

15

The HCF of 5, 10, 15 are: 5

LAB Assignment (Cont ...)

Problem 3. Develop a Phonebook using Python Dictionaries

Name the script - *phone_book.py*.

```
$ phone_book.py
```

How many records you would like to enter in PhoneBook? : 2

Please enter those required (One record on each line, they should be space seperated).

Hari 9844445454545

Sadu 23454544

Your records are entered in phonebook successfully. Now, please enter names which you would like to query?

(Once done - feel free to enter ctrl+D)

John

Hari

Sadu

Printing Phone Numbers for queries names:

For John - Number not found

Hari = 9844445454545

Sadu - 23454544

LAB Assignment (Cont ...)

Problem 4. Given number of integers, calculate and print the respective *mean*, *median*, and *mode* on separate lines. If your array contains more than One *modal value*, choose the numerically smallest one.

Sample Execution:

```
$ python3 mean_median_mode.py
```

```
10
```

```
10 23 45 23 45 67 89 23 45 45
```

```
Mean: 41.5
```

```
Median: 45.0
```

```
Mode: 45
```

Lab Assignment (Cont ...)

Problem 5. Use **lab_two.py** assignment area to find:

- most active users (2 users)
- most active IP address (2 IP address)
- most viewed topics (2 topics)

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Thank you

Aegis

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