

## Programming with Python

### Lab Assignment 4

1. Read the given file `rhyme.txt` and display lines from it in lower case.
2. Write a function to accept Shipping Address from the User with following fields:
  - I. First Name
  - II. Last Name
  - III. Address Line 1
  - IV. Address Line 2
  - V. City
  - VI. State
  - VII. Pin Code

Save shipping addresses in a file named `address.txt`.

3. After accepting Shipping address from user (previous question continued) ask user whether the billing address is same as shipping address, if not, accept billing address from the user with the same fields as mentioned above. Now save these both addresses in the same file with appropriate titles. If we run this code multiple times all the addresses must be saved in the same file.
4. Write a function called `reduce_whitespace()`, in a module named `string_operations`, that returns the line with all extra whitespace characters between words replaced with single space.  
Read the given file `white_spaces.txt` and apply this function, `reduce_whitespace()`, by importing from module, on all the lines in the file, one by one, and then save these lines in a new file.
5. LUCKY WINNER: Write a function, that takes integer `n`, to select `n` random names from the file `students.txt`. Each time we call this function, the names & roll numbers should be displayed without repetition.

6. File `movies_data.txt` contains data about movies. Each line of this file contains data for 1 movie. Data is in following format:

```
movie_id::movie_name (release_year)::genres
```

If movie falls in more than one genre then those are separated by "|".

E.g.: Comedy|Drama|Romance

Based on the data in this file answer the following questions:

- a) Find the number of movies released every year in a dictionary.  
Sample output: {'1923': 3, '1930': 7, '1957': 20...}
- b) Find the total number of movie names starting with T or J.
- c) How many comedy movies were released in 1995?
- d) How many action movies were released in 1993?
- e) How many Batman movies are present in the file?