LAB 09

Python Standard Libraries

1. Using the `os` module, write a Python function to check if a file exists. If the file exists, print its size; otherwise, print a message stating that the file does not exist.
2. Write a Python program using the `shutil` module to copy a file from one directory to another. Take the file paths as command-line arguments using `sys.argv`.
3. Using the `glob` module, write a Python function to list all `.txt` files in the current directory.
4. Write a Python script using the `sys` module to print the command-line arguments passed to the script.
5. Create a Python script that uses the `argparse` module to accept two integers as command-line arguments and print their sum.
6. Write a Python function using the `re` module to extract all email addresses from a given text.
7. Write a Python function using the `math` module to calculate the area of a circle given its radius.
8. Generate a random password of length 8 using the `random` module. The password should contain both letters and digits.
9. Calculate the mean and median of a list of numbers using the `statistics` module in Python.
10. Write a Python program that uses the `urllib.request` module to download an image from a given URL and save it to the local disk.
11. Write a Python function that takes a date in the format "YYYY-MM-DD" as input and prints the day of the week.
12. Compress a given string using the `zlib` module and then decompress it to obtain the original string.
13. Use the `timeit` module to measure the time it takes to execute a simple function, such as finding the sum of all numbers from 1 to 1000.
14. Write a simple Python function and use the `doctest` module to create a test case that verifies its correctness.