Task 7

Hash functions

A **hash function** is a function that takes an input (or ‘message’) and returns a fixed-size string of bytes. The output, typically a number, is called the **hash code** or**hash value**. The main purpose of a hash function is to efficiently map data of arbitrary size to fixed-size values, which are often used as indexes in hash tables.

**Types of Hash Functions**

1. Division Method.
2. Multiplication Method
3. Mid-Square Method
4. Folding Method
5. Cryptographic Hash Functions
6. Universal Hashing
7. Perfect Hashing

The set

The data structure used in this is [Hashing](https://www.geeksforgeeks.org/hashing-data-structure/), a popular technique to perform insertion, deletion and traversal in O(1) on average. The operations on Hash Table are somewhat like Linked List. Sets in python are unordered lists with duplicate elements removed.

To bring the pointer back in a file use fseek() mesthod.