SSN COLLEGE OF ENGINEERING
DEPARTMENT OF CSE

DATA STRUCTURES LABORATORY (CS8381)

Ex.No.12 Implementation of Hashing Techniques

Let the hash function be **h(X) = X mod TableSize** where X is the integer to be inserted and TableSize is the size of the hash table which is computed by **nextprime(TableSize)**.

Use the hash function to map a set of integers into hash table and if any collision occurs, use the following collision resolution strategies and display their corresponding hash tables.

- **Separate Chaining (Open Hashing)**
- **Linear probing (Closed Hashing)**

Have the following menu options:

1. **Separate Chaining**
2. **Linear Probing**
3. **Exit**

All the inputs should be given from the main function. The C file should contain the main function and the header file should contain the structure and the implementation of operations.

Test the following cases:

1. **Input {4371, 1323, 6173, 4199, 4344, 9679, 1983}**
2. **Input {45, 36, 21, 94, 104, 53, 30, 91, 35}**