S.Y. B. Tech. Academic Year 2019-20 Trimester: IV

Advanced data Structure

LABORATORY WRITE UP

Experiment Number: 08

TITLE: Implementation of direct access file using Hashing: linear probing with replacement and without replacement

PROBLEM STATEMENT:

Implement Direct access file using hashing (linear probing with and without replacement) perform following operations on it a) Create Database b) Display Database c) Add a record d) Search a record e) Modify a record

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OBJECTIVE:

1. To study hashing techniques
2. To implement different hashing techniques
3. To study and implement linear probing with & without replacement
4. To study how hashing can be used to model real world problems

THEORY: ***//To be Written by Students***

// Write theory by elaborating below points

Write in brief about

- What is Hashing? Compare hashing with other searching techniques.
- Write different hash functions
- Explain hash collision resolution techniques.

IMPLEMENTATION:

- **PLATFORM:**
  - 64-bit Open source Linux or its derivatives.
  - Open Source C++ Programming tool like g++/Eclipse Editor.
- **TEST CONDITIONS:-**

1. Input min 10 elements.
2. Display collision with replacement and without replacement.

- **PSEUDO CODE:** ***//To be Written by Students***

  Write pseudo code for linear probing with replacement and without replacement.

  TIME COMPLEXITY: ***//To be Written by Students***

  Find out time complexity of linear probing method

- **CONCLUSION:**

  Thus, we have implemented linear probing with and without replacement.

- **FAQs** ***//To be Written by Students***

1. Write different types of hash functions.
2. Explain chaining with & without replacement with example.
3. Explain quadratic probing with example

- **PRACTICE ASSIGNMENTS**

  1. Write a program to implement chaining without replacement.