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Date:- / /
Page No.:- 39

Title :- using sequential file handling to maintain the data.

Problem Statements :- Company maintains employee information as example ID, name, designation and salary. Allow user to Add, delete information of employee Display information of particular employee. If employee does not exist an appropriate message is displayed If it is, then the system displays the employee details use index sequential file to maintain the data.

Software Requirement :- Java, JVM, 64-bit Fedora OS, or any open source os, etc.

Theory :-

- Indexed Sequential file is a file organization method that combines the advantages of sequential file organization and direct the file organization.
- In sequential file organization the records are stored in order, which makes it easy to access them sequentially However, it can be slow to access records randomly
- In direct file organization, the records are stored in a way that allows them to be accessed randomly but it can difficult to keep the records in order
- A sequential file is a type of the file organization where records are stored in a sequential order based on their physical placement in the file.

- Indexed sequential file organization solves this problem by storing the records in order and creating an index that maps the records key s to their physical locations in the file. This allow the records to be accessed either sequentially or randomly with good performance in both cases.

- To maintain employee information using indexed sequential file organization we can create a file with the following fields.
  - Employee ID
  - Name
  - Designation
  - Salary

- The records in the file can be stored in order by employee ID. we, can then create an index that maps the employee IDs to their physical location in the file.

- To add a new employee, we can write the new employee's information to the file and update the index.

- To delete an employee, we can delete the employee's record from the file and update the index.

- To display information about a particular employee. we can use the index to find the employee's record in the file and then display the information

Algorithm :-

To add the new employee using indexed sequential file organization.

1. Open the file for writing
2. write the new employee's information to the file
3. Update the index
4. close file.

To delete an employee using indexed sequential file organization.

1. open the file for reading
2. find the employee's record in the file.
3. Delete the employee's record from the file.
4. Update the index
5. Close the file

To display information about a particular employee using indexed sequential file organization.

1. open the file for reading.
2. use the index to find the employee's record in the file.
3. Display the employee's information.
4. close the file.

Conclusion :- we can maintain the employee information using indexed sequential file and can perform operations such as adding, deleting displaying employee information.