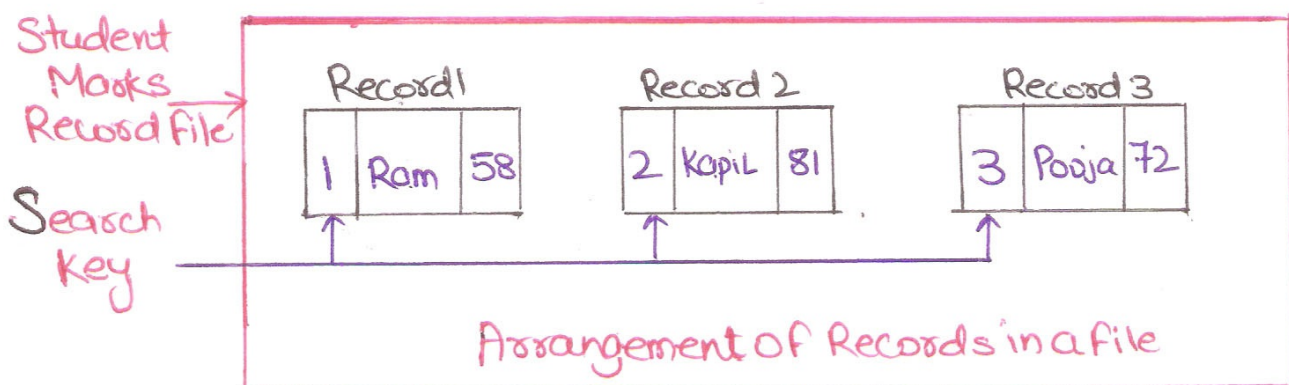


Sequential File Organization

In Sequential file Organization Records are Stored or Arranged in the Ascending or Descending Order according to the Search key / Key field.

Search Key :- It is any attribute or set of attributes, which is need not to be the Primary Key, or even a Super Key.

- ⇒ First Record in the order is placed at the beginning of the file.
- Second Record is stored Right after the first. and the third after the second and so on.
- ** Key field can be Numeric (like any employee Code No.) or alphabetic (like employee Name).



In this records are Sequentially Arranged According to the Roll No. of Student (Search Key)

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For fast Retrieval of Records in Search Key order,
We Chain together records by Pointers.

Pointer in Each Record points to the next Record in Search-key order.

For Minimize the No. of block Access:- for this we store Records physically in Search-key Order. Or as close to Search-key order as possible

It is a Sequential file Organization of 'Account' records.

Records are Arranged using 'Branch Name' as a Search Key

Customer code	Branch Name	Amount	Pointer (Address holding for Next Record)
A-218	ABani Bagh	17001	→
A-682	Chandi chawk	18000	←
A-589	Chandni chawk	19000	←
A-901	Film City	10000	←
A-784	IndesLok	12500	←
A-303	IndesLok	11300	←
A-405	IndesLok	2300	←
A-201	Rani Bgh	18400	←
A-109	Rani Bgh	70000	←

This organization of file is useful for Displaying
But it is difficult to maintain physical Sequence
Order as records are inserted and deleted

Since we have to move many Records as a result of a

Single insertion or Deletion :-

By using the Concept Pointer chain i.e. Creating free list Records we can overcome Deletion based Memory Wastage.

For Insertion, we apply the following Rules:-

1 ⇒ Locate the record in the file which comes before the record to be inserted in Search-key Order.

2 ⇒ Due to deletion if any space left blank in same block, insert the new Record at that place.

OR Otherwise insert the new record in an overflow block. For this we have to adjust the pointers so as to chain together the records in Search-key Order.

In this Record with Search Key 'Kamla Nagar' has to be added. We check if there is any Search key Matches the order of Records with Kamla Nagar.

→ If yes and it checks the free space there then insert the Kamla Nagar there

→ If no then the Record saved in overflow block pointing next Record & the Record before the new inserted Record in previous list points to it.

Pointers are adjusted in this whole process.

A-218	ABani Bagh	17001	→
A-682	Chandni Chawk	18000	←
A-589	Chandni Chawk	19000	←
A-901	Film City	10000	→
A-784	Indes Lok	12500	→
A-303	Indes Lok	11300	←
A-405	Indes Lok	2300	←
A-201	Rani Bgh	18400	←
A-109	Rani Bgh	70000	←

A-786	Kamla Nagar	18920	←
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Overflow Block