Conclusion

Advantages

- Records are sorted by key fields.
  - Efficient for searching.
  - Decreases page accesses.
- Sizes are reasonable.
  - Easy to use for different purposes.
- Number of fields can be selected.
  - Gives freedom to user.
- Unused space in pages is minimal.
- Linked list implementation would be fast.
  - Shifting process required for creation and deletion of records is fast with a linked list.

Drawbacks

- Fields are of type integer.
  - Prevents the user from using other data types thus limits the user.
- No error checking for invalid user inputs can be problematic in real life usage.
- No overwriting deleted records.
  - Solution: Pages that are full with deleted records can be deleted periodically depending on the usage (once a week or once a month).
- Records that are not completely full (number of fields is less than maximum number of fields) are filled with zeroes to reach the maximum record size and keep page size and number of records in a page fixed.
- Fixed page size requires more space sometimes but enables a faster and efficient system.
  - Solution: Different page sizes can be determined for different usage types.