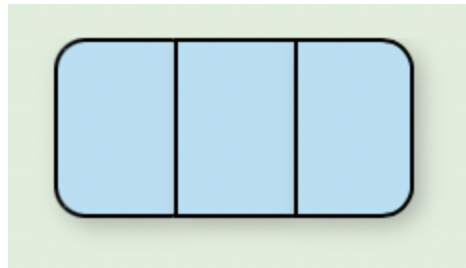


# More Structures

🕒 Created	@January 23, 2025 9:20 AM
📁 Class	DS 4300
☑ Reviewed	<input type="checkbox"/>

## B+ Trees

- optimized for disk based indexing, minimizes disk access
- is an m-way tree with order M
  - M represents the maximum number of keys in each node
  - Max kids  $\rightarrow M + 1$
- node structure: m = 3



- 1st:  $< a$
  - 2nd:  $\geq a, < b$
  - 3rd:  $> b, < c$
  - 4th:  $\geq c$
- Properties
  - all nodes (except the root) must be half full minimally
  - root node does not have to half full
  - insertions are always done at leaf level

- leaves are stored as a double linked list (DLL)