|  |  |  |  |
| --- | --- | --- | --- |
| Customer Data | | | |
| Customer\_ID | Name | Current\_BookHold | Books\_Borrowed[] |
| Num&Char | String | Int | Books\_ID |
|  |  |  | Copy\_ID |
|  |  |  | Borrow\_ID |

|  |  |  |  |
| --- | --- | --- | --- |
| Borrowed Data | | | |
| Borrow\_ID | Status | Customer\_ID | Book [] |
| Num&Char | Boolean | Num&Char | Books\_ID |
|  |  |  | Copy\_ID |
|  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Books Data | | | | |
| Book\_ID | Book\_Name | Author | Copys\_Availble | Status[] |
| Num&Char | String | String | Int | Customer\_ID |
|  |  |  |  | Copy\_ID |
|  |  |  |  | Borrow\_ID |

Account for Borrower

RECORDED BOOKS/STORAGE

BORROWED QUEUE BOOKS

● Use a binary search tree for organizing books by title.

● Implement queues for waitlists on popular books.

● Sort books alphabetically using merge sort for inventory reports.