**Database System**

**Data Structures used:**

The following data structures have been used in our code:

1. AVL Trees
2. Red, Black Trees
3. B-Trees
4. Linked Lists

The purpose of using Linked List in our code is to cater duplicate entries while indexing for example if the user wishes to index by year so multiple duplicate entries can exist against the same year and hence the use of linked lists. Furthermore, AVL, Red-Black, and B-Trees are a way to index the data that is given.

**Functions used:**

Search, update, delete, and range queries use the indexed files stored on the system to perform these operations.