

Database Systems Lab

SESSION 2

Implementing non-indexed search

In this lab session, you will begin with a basic implementation of Library Management System(LIBSYS) . [Note: This version does not use any index.]

Complete the following tasks:

Implement the following functions in rollno_lab2.c

```
int libsys_create(char *repo_name );
int libsys_open( char *repo_name, int rec_size );
int libsys_put_book_by_isbn( int isbn, struct Book *rec );
int libsys_get_book_by_isbn( int isbn, struct Book *rec );
libsys_close();
```

1. Implement **libsys_open** by adding the following functionality:
 - a. Open the file
 - b. Store file pointer in a global struct
2. Implement **get_book_by_isbn**:
 - a. Read record-record-by record from data file
 - b. Compare key of the record with the given key
 - c. Return record if record is found
3. Implement **put_book_by_isbn**:
 - a. Store the given record at the END of the data file
4. Implement **libsys_close**:
 - a. Close the repo file
 - b. Update file pointer and status in global struct

Testing

- a. The following driver program is given to you:
 - driver.c (generic testing with input data file like testcase.in)
- b. Test your program thoroughly with the above driver program by creating your own test input files

Commands

- Use the following command for creating executable:

```
gcc -o output driver.c rollno_lab2.c
```

note: roll_no_lab2.c is your code where roll_no is replaced with your roll number in lowercase.

```
./output
```

Sample output:

Test-case-id 01:SUCCESS

Test-case-id 02:SUCCESS

Test-case-id 03:SUCCESS

Test-case-id 04:SUCCESS

Test-case-id 05:SUCCESS

Test-case-id 06:SUCCESS

Test-case-id 07:SUCCESS

Test-case-id 08:SUCCESS

Test-case-id 09:SUCCESS

Upload ONLY the rollno_lab2.c file to LMS: