Database Systems Lab

SESSION 2a

Building in-memory index for a data file

In this lab session, you will begin with a basic implementation of Personal Data Store (PDS). You are given a partial implementation of PDS.
Complete the following tasks:

Implement the following functions in pds.c

```
Int pds_create (char *repo_name );
int pds_open( char *repo_name, int rec_size );
int put_rec_by_key( int key, struct Contact *rec );
int get_rec_by_key( int key, struct Contact *rec );
int pds_close();
```

1. Implement pds_open by adding the following functionality:
    a. Open the file
    b. Store file pointer in a global strcut
2. Implement get_rec_by_key:
    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_rec_by_key:
    a. Store the given record at the END of the data file
4. Implement pds_close
    a. Close the repo file
    b. Update file pointer and status in global struct

Submission

a. Test your program thoroughly with the given driver program
b. Upload the source file to LMS in the form of a zip file
c. Upload pds.h, pds.c in the form of a zip file named after your roll number