

# Database Systems Lab

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## SESSION 2a

### Implementing non-indexed search

In this lab session, you will begin with a basic implementation of Personal Data Store (PDS). This version **does not use any index**.

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 struct
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

***gcc -o output roll\_no\_pds.c contact.c contact\_driver.c  
./output***

- b. Rename rollno\_pds.c to **IMT\_roll\_no\_pds.c** .  
***Upload only roll\_no\_pds.c file***