

Data Management and File Structure

File Input/Output

In this lab work, you will learn how to perform raw file input and output operations.

A file is defined as a sequence of bytes pertaining to a specific subject. In this course, we will consider a more structured form for files. We assume, a file is a set of fixed length records (rows), where each row contains information about a specific entity (object or person).

To read from or write into a file we need a temporary location in memory with the same format as the records of the file. We will use C structs to create these variables.

Assume a file is used to store the name and phone number of students in a university. Write a program to read 10 names and corresponding phone numbers and store them in a file (name the file Student.txt)

Use:

```
struct Student
{
    char name[30];
    long int phone;
};
```

To create a file use `open()` function. Write data into the file using `write` function.

Now, close the file and open it in read mode. Get a phone number from the user and find the student having that number. Print the student name

Repeat the search for a student using his/her name. Your program should read a name and find the phone number. If the student or the phone number is not found in the file the program should give a message and wait for the next number or name.

To start searching from the beginning of the file use `fseek()` function (do not close/reopen the file)