

Assignment

Files Management

Using C language

❖ Assignment Tasks:

Task 1: Create a Text File

- ✓ Write a C program that create file {sust.txt} contain the following:
 - Sudan University of Science and Technology
 - Faculty of Computer Science and Information Technology
 - Name: student name
 - Department: Computer of Science

Task 2: Unordered Records File (Heap File)

- ✓ Write a program using C language to save the employee data in a file name: {employee.dat}.

```
struct employee{
    char name[30];
    char ssn[9];
    int salary;
    int job_code;
    char department[20];
} ;
```

- ✓ With the following menu:
Initialize, Insert, Delete, Search, Display, and Exit

Task 3: Ordered Records File

- ✓ Write a program using C language to save the employee data in a file name: {employee.dat}.

```
struct employee{
    char name[30];
    char ssn[9];
    int salary;
    int job_code;
    char department[20];
} ;
```

- ✓ The file is ordered by SSN attribute.
- ✓ With the following menu:
Initialize, Insert, Delete, Search, Display, and Exit

Task 4: External Sorting (Two-Way Merge Sort)

- ✓ Sort the file {employee.dat} in the Task No. 2 by using the two way merge sort algorithm.
- ✓ Use the four files Fa1, Fa2, Fb1, Fb2 in order to sort the unordered file {employee.dat}.

❖ Submission Guidelines:

Each student must submit a single ZIP file containing:

1. All .c source code files (task1.c, task2.c, etc.)
2. Screenshots of program outputs for each task
3. A README.txt file that includes:
 - Full Name
 - Department
 - Notes (if any)
 - How to compile and run the code