GLOBAL ACADEMY OF TECHNOLOGY

Department of Computer Science and Engineering

REPORT ON

C-PROGRAMMING MINI PROJECT

IInd Semester

Academic Year- 2018-19

TITLE :- STUDENT DATABASE MANAGEMENT USING FILE ORGANIZATION IN C

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Objective:-

      The Student Database Management System helps to add, access and modify or update the data present in the file. This is a small try to make the job of the Institution's Management team a way more simpler. As this system is <mark>MENU-DRIVEN,</mark> the user will be easily allowed to perform the desired operation.

Features:-

1. Menu :- Users will be able to choose desired operation though the operations.

2. Operations on the data:

- Insertion of records

- Display of added records

- Searching any record

- Delete or Update any record

- Sort the records accordingly

SOFTWARE REQUIREMENTS AND SPECIFICATIONS :-

1. PROGRAMMING LANGUAGE:- C LANGUAGE

2. OPERATING SYSTEM:- WINDOWS 10/8/7

3. COMPILER :- GNU CC COMPILER

4. As this is a program written in C language, IDE's such as CODEBLOCKS

    are required to execute the program.

Menu Window

Below snapshot presents to the user the <mark>*"Menu" window*</mark> *which allows the user to choose between the choices.*

```
     WELCOME TO THE STUDENT RECORDS MANAGEMENT SYSTEM



     ---------  Select your choice  ---------

     1. INSERT RECORDS OF STUDENT
     2. DISPLAY RECORDS OF STUDENT
     3. SEARCH RECORD OF STUDENT USING ROLL NUMBER
     4. DELETE RECORD OF STUDENT
     5. UPDATE RECORD OF STUDENT
     6. SORT RECORDS ON THE ON BASIS OF ROLL NUMBER
     7. EXIT


     -----------------------------------------

     Enter your choice:
```

If the user enters <mark>*option 2*</mark> *before entering any record into the file the program displays that the file is empty as shown below.*

```
     THE FILE IS EMPTY PLEASE ENTER NEW RECORDS
```

If the user enters a <mark>*wrong option*</mark> *(other than the ones listed in the menu) an error message will be displayed and the program would ask the user to re-enter with an valid option.*

```
        WELCOME TO THE STUDENT RECORDS MANAGEMENT SYSTEM




     -----▶----    Select your choice   ---------

     1. INSERT RECORDS OF STUDENT
     2. DISPLAY RECORDS OF STUDENT
     3. SEARCH RECORD OF STUDENT USING ROLL NUMBER
     4. DELETE RECORD OF STUDENT
     5. UPDATE RECORD OF STUDENT
     6. SORT RECORDS ON THE ON BASIS OF ROLL NUMBER
     7. EXIT


     ------------------------------------------

     Enter your choice:              10
```

```
        YOUR CHOICE IS WRONG
        PLEASE TRY AGAIN...


        WELCOME TO THE STUDENT RECORDS MANAGEMENT SYSTEM
          ▶



         ----------   Select your choice   ---------

         1. INSERT RECORDS OF STUDENT
         2. DISPLAY RECORDS OF STUDENT
         3. SEARCH RECORD OF STUDENT USING ROLL NUMBER
         4. DELETE RECORD OF STUDENT
         5. UPDATE RECORD OF STUDENT
         6. SORT RECORDS ON THE ON BASIS OF ROLL NUMBER
         7. EXIT


         ------------------------------------------

         Enter your choice:
```

Inserting Data into File

Below snapshot , shows that the program allows the user to enter records into file when the user enters <mark>option 1</mark> from the Menu. Fields such as <mark>Roll Number, Name and Marks obtained in Semester</mark> is fed into the file.

```
STUDENT RECORDS MANAGEMENT SYSTEM
Enter the Roll no of the Student  :10
Enter the Name       :AKASH
Enter total marks obtained by student in the Semester out of 800      :789

PRESS 1 TO CONTINUE ENTERING RECORDS OF ANOTHER STUDENT
PRESS 0 TO  STOP
```

<mark>Roll Number of a student is unique,</mark>if the user tries enter a record with a roll number already wtritten into the file , the program displays a message that the roll number is already entered and would request the user to re-enter with an suitable roll number.

```
STUDENT RECORDS MANAGEMENT SYSTEM
Enter the Roll no of the Student  :10
The roll number is already entered try with other roll number
```

```
STUDENT RECORDS MANAGEMENT SYSTEM
Enter the Roll no of the Student   :
```

Displaying data stored in File

Below snapshot shows that the program <mark>displays</mark> to the user the records fed into the file when the user enters <mark>option 2</mark> in the menu.

```
              STUDENT RECORDS MANAGEMENT SYSTEM

DISPLAYING RECORDS OF STUDENTS
Roll Number       Name    Mark

10                AKASH    789.00
12                RAVI     567.00
13                JOHN     456.00
14                ABRHAM   688.00
11                SITA     799.00
```

Below snapshot shows that the program allows the user to <mark>search a record</mark> when the user enters <mark>option 3</mark> from the menu and is requested to enter appropriate Roll No

```
STUDENT RECORDS MANAGEMENT SYSTEM

Enter the Roll no you want to search   :12


Roll no = 12
Name    = RAVI
Mark    = 567.00
```

The program requests the user to enter a already existing roll umber from the file if the roll number entered by the user does not match with any records in the program.

```
STUDENT RECORDS MANAGEMENT SYSTEM

Enter the Roll no you want to search   :20
Roll No 20 NOT AVAILABLE  PLEASE TRY WITH ANOTHER ROLL NUMBER
```

Deleting data from file

Below snapshot shows that the program allows the user to <mark>*delete a record*</mark> *when the user enters* <mark>*option 4*</mark> *in the menu,the user would be requested to enter appropriate Roll No entered.*

```
        STUDENT RECORDS MANAGEMENT SYSTEM


        Enter the Roll no you want to delete :13
        RECORD DELETED
```

```
                    STUDENT RECORDS MANAGEMENT SYSTEM

    DISPLAYING RECORDS OF STUDENTS
    Roll Number        Name     Mark

    10                 AKASH     789.00
    12                 RAVI      567.00
    13                 JOHN      456.00
    14                 ABRHAM    688.00
    11                 SITA      799.00
              Before Deleting Record
```

```
                    STUDENT RECORDS MANAGEMENT SYSTEM

    DISPLAYING RECORDS OF STUDENTS
    Roll Number        Name     Mark

    10                 AKASH     789.00
    12                 RAVI      567.00
    14                 ABRHAM    688.00
    11                 SITA      799.00
              After Deleting Record
```

Updating data stored in File

Below snapshot shows that the program allows the user to update a record (when the user enters ==option 5== *from the menu) using* ==Roll No== *entered,the user can update both* ==name== *and* ==marks== *or either of them.*

```
STUDENT RECORDS MANAGEMENT SYSTEM

Enter roll number to update:12

1. Update Name of Roll Number 12
2. Update Mark of Roll Number 12
3. Update both Name and Mark of Roll Number 12
Enter your choice:1
```

```
                STUDENT RECORDS MANAGEMENT SYSTEM

DISPLAYING RECORDS OF STUDENTS
Roll Number          Name      Mark

10                   AKASH     789.00
12                   RAVI      567.00
14                   ABRHAM    688.00
11                   SITA      799.00
         Before updating Name in the record
```

```
                STUDENT RECORDS MANAGEMENT SYSTEM

DISPLAYING RECORDS OF STUDENTS
Roll Number          Name      Mark

10                   AKASH     789.00
12                   RAM       567.00
14                   ABRHAM    688.00
11                   SITA      799.00
         After updating name  in the record
```

Below snapshot shows that the program allows the user to <mark>update the marks of student using Roll No entered.</mark>

```
STUDENT RECORDS MANAGEMENT SYSTEM

Enter roll number to update:11


1. Update Name of Roll Number 11
2. Update Mark of Roll Number 11
3. Update both Name and Mark of Roll Number 11
Enter your choice:2


Enter total marks obtained by student in the Semester out of 800      :750



RECORD UPDATED
```

```
              STUDENT RECORDS MANAGEMENT SYSTEM

  DISPLAYING RECORDS OF STUDENTS
  Roll Number        Name      Mark

  10                 AKASH      789.00
  12                 RAM        567.00
  14                 ABRHAM     688.00
  11                 SITA       799.00
```
Before updating marks in record

```
              STUDENT RECORDS MANAGEMENT SYSTEM

  DISPLAYING RECORDS OF STUDENTS
  Roll Number        Name      Mark

  10                 AKASH      789.00
  12                 RAVI       567.00
  11                 SITA       750.00
  14                 ABHRAM     688.00
```
After updating marks in record

The program requests the user to enter a already existing roll umber from the file if the roll number entered by the user does not match with any records in the program.

```
STUDENT RECORDS MANAGEMENT SYSTEM

Enter roll number to update:16
Roll number 16 NOT AVAILABLE  PLEASE TRY WITH ANOTHER ROLL NUMBER
```

Sorting Records

Below snapshot shows that the program allows the user to sort the record on the basis of <mark>Roll Number of students.</mark>
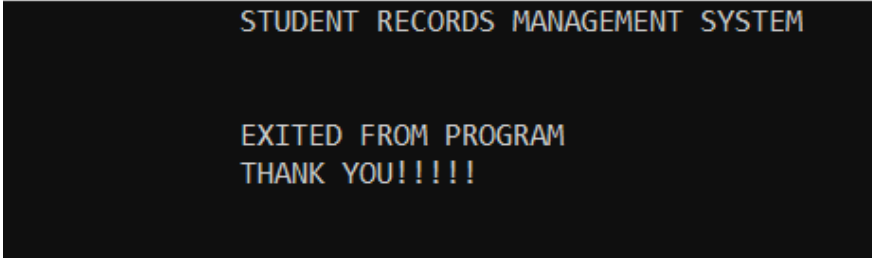
```
        STUDENT RECORDS MANAGEMENT SYSTEM

    Roll No.          Name              Mark


    10                AKASH             789.000000
    11                SITA              799.000000
    12                RAM               567.000000
    14                ABHRAM            688.000000
```

Records sorted in ascending order according to roll number

Exiting Program

Below snapshot shows that the program allows the user to <mark>Exit from the program</mark> when the user enters option 7 in Menu .

```
        STUDENT RECORDS MANAGEMENT SYSTEM


        EXITED FROM PROGRAM
        THANK YOU!!!!!
```