DATA STRUCTURES LAB

FEE MANAGEMENT SYSTEM

Team – 10:

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Description:

The fee management system is an application for maintaining a students details in a college/school. It deals with student details, fee details, collection details, scholarship details etc.

Abstract:

We are using the linked list concept to build and run the project

Titiled “FEE MANAGEMENT SYSTEM”.

It consists the details of

1.Details of the student(includes all information about student).

2. Details of fee.

3. Details of collections.

4. Details of scholarship.

As we all know that each element in the linked list is known as “NODE”.

Each node is connected(or) linked to the other with pointer.

As each node is consists of the details of student,details of fee,details of collections and details of scholarship.

Source Code:

```
//fee management system
#include <stdio.h>
#include <stdlib.h>
#include <string.h>

struct link
{
   char name[100];
   char fathername[100];
   char mothersname[100];
   char rollnumber[100];
   char section[100];
   int clgfee;
   int busfee;
   int paidfee;
   int totalfee;
   int remainingfee;
   int scholarshipamount;
   struct link *next;
};

struct link *start;

void create(struct link *);
void display(struct link *);
```

```
void scholarshiprec(struct link *);
void remainingfee(struct link *);
void section(struct link *);

int main()
{
   int c;
   struct link *node;
   node = (struct link *)malloc(sizeof(struct link));
   start = node;
   if (node == NULL)
   {
      printf("No info\n");
      return 1;
   }
   else
   {
      printf("Press 1 to create\n");
      printf("Press 2 to print the student name with due fee\n");
      printf("Press 3 to print students names receiving scholarship amount\n");
      printf("Press 4 to print the student names belonging to csd section\n");
      printf("Press 5 for exit\n");
      printf("Enter your choice: ");
      scanf("%d", &c);
      int ch = 1;
      while (ch)
```

```
{
   switch (c)
   {
   case 1:
      create(start);
      display(start);
      break;
   case 2:
      remainingfee(start);
      break;
   case 3:
      scholarshiprec(start);
      break;
   case 4:
      section(start);
      break;
   case 5:
      ch = 0;
      break;
   default:
      printf("Wrong choice. Try again.\n");
      break;
   }
   if (ch)
   {
      printf("Press 1 to create\n");
```

```
            printf("Press 2 to print the student name with due fee\n");
            printf("Press 3 to print students names receiving scholarship amount\n");
            printf("Press 4 to print the student names belonging to csd section\n");
            printf("Press 5 for exit\n");
            printf("Enter your choice: ");
            scanf("%d", &c);
          }
        }
    }

    return 0;
}

void create(struct link *node)
{
    char ch;
    printf("Enter name: ");
    scanf(" %[^\n]", node->name);

    printf("Enter father's name: ");
    scanf(" %[^\n]", node->fathername);

    printf("Enter mother's name: ");
    scanf(" %[^\n]", node->mothersname);

    printf("Enter roll number: ");
```

```
scanf(" %[^\n]", node->rollnumber);

printf("Enter section: ");
scanf(" %[^\n]", node->section);

printf("Enter college fee: ");
scanf("%d", &node->clgfee);

printf("Enter bus fee: ");
scanf("%d", &node->busfee);

printf("Enter paid fee: ");
scanf("%d", &node->paidfee);

node->totalfee = node->clgfee + node->busfee;
node->remainingfee = node->totalfee - node->paidfee;

printf("Enter scholarship amount: ");
scanf("%d", &node->scholarshipamount);

node->next = NULL;

printf("Enter 'n' to stop or any other character to continue: ");
scanf(" %c", &ch);
while (ch != 'n')
{
```

```
node->next = (struct link *)malloc(sizeof(struct link));
node = node->next;

printf("Enter name: ");
scanf(" %[^\n]", node->name);

printf("Enter father's name: ");
scanf(" %[^\n]", node->fathername);

printf("Enter mother's name: ");
scanf(" %[^\n]", node->mothersname);

printf("Enter roll number: ");
scanf(" %[^\n]", node->rollnumber);

printf("Enter section: ");
scanf(" %[^\n]", node->section);

printf("Enter college fee: ");
scanf("%d", &node->clgfee);

printf("Enter bus fee: ");
scanf("%d", &node->busfee);

printf("Enter paid fee: ");
scanf("%d", &node->paidfee);
```

```
        node->totalfee = node->clgfee + node->busfee;
        node->remainingfee = node->totalfee - node->paidfee;

        printf("Enter scholarship amount: ");
        scanf("%d", &node->scholarshipamount);

        node->next = NULL;

        printf("Enter 'n' to stop or any other character to continue: ");
        scanf(" %c", &ch);
    }
}

void display(struct link *node)
{
    printf("--------------------student details-----------------\n");
    while (node != NULL)
    {
        printf("Name of the student: %s\n", node->name);
        printf("Father's name: %s\n", node->fathername);
        printf("Mother's name: %s\n", node->mothersname);
        printf("Roll number: %s\n", node->rollnumber);
        printf("Section: %s\n", node->section);
        printf("College fee: %d\n", node->clgfee);
        printf("Bus fee: %d\n", node->busfee);
```

```
        printf("Fees paid by the student: %d\n", node->paidfee);
        printf("Remaining fee to be paid: %d\n", node->remainingfee);
        printf("Scholarship amount received by the student: %d\n", node->scholarshipamount);
        printf("-----------------------------------\n");
        node = node->next;
    }
}

void remainingfee(struct link *node)
{
    printf("--------students with due fee----------\n");
    while (node != NULL)
    {
        if (node->remainingfee > 0)
        {
            printf("Name: %s, Remaining Fee: %d\n", node->name, node->remainingfee);
        }
        node = node->next;
    }
}

void scholarshiprec(struct link *node)
{
    printf("----------students who received scholarship----------\n");
    while (node != NULL)
    {
```

```
        if (node->scholarshipamount > 0)
        {
            printf("Name: %s, Scholarship Amount: %d\n", node->name, node->scholarshipamount);
        }
        node = node->next;
    }
}

void section(struct link *node)
{
    printf("------------students belonging to csd section----------------\n");
    while(node != NULL)
    {
        if(strcmp(node->section, "csd") == 0)
        {
            printf("Name: %s\n", node->name);
        }
        node = node->next;
    }
}
```

Output:

Press 1 to create

Press 2 to print the student name with due fee

Press 3 to print students names receiving scholarship amount

Press 4 to print the student names belonging to csd section

Press 5 for exit

Enter your choice: 1

Enter name: kavitha

Enter father's name: rajendra

Enter mother's name: uma

Enter roll number: 99

Enter section: csd

Enter college fee: 60000

Enter bus fee: 25000

Enter paid fee: 40000

Enter scholarship amount: 20000

Enter 'n' to stop or any other character to continue: p

Enter name: harshath

Enter father's name: jayam

Enter mother's name: udaya

Enter roll number: 78

Enter section: cse

Enter college fee: 50000

Enter bus fee: 25000

Enter paid fee: 50000

Enter scholarship amount: 0

Enter 'n' to stop or any other character to continue: p

Enter name: kiran

Enter father's name: varun

Enter mother's name: kavya

Enter roll number: 45

Enter section: csm

Enter college fee: 60000

Enter bus fee: 25000

Enter paid fee: 40000

Enter scholarship amount: 0

Enter 'n' to stop or any other character to continue: p

Enter name: somesh

Enter father's name: chaitanya

Enter mother's name: sunitha

Enter roll number: 78

Enter section: csd

Enter college fee: 60000

Enter bus fee: 25000

Enter paid fee: 50000

Enter scholarship amount: 20000

Enter 'n' to stop or any other character to continue: p

Enter name: manish

Enter father's name: gopal

Enter mother's name: ratna

Enter roll number: 31

Enter section: csd

Enter college fee: 60000

Enter bus fee: 25000

Enter paid fee: 40000

Enter scholarship amount: 45000

Enter 'n' to stop or any other character to continue: n

----------student details----------

Name of the student: kavitha

Father's name: rajendra

Mother's name: uma

Roll number: 99

Section: csd

College fee: 60000

Bus fee: 25000

Fees paid by the student: 40000

Remaining fee to be paid: 45000

Scholarship amount received by the student: 20000

Name of the student: harshath

Father's name: jayam

Mother's name: udaya

Roll number: 78

Section: cse

College fee: 50000

Bus fee: 25000

Fees paid by the student: 50000

Remaining fee to be paid: 25000

Scholarship amount received by the student: 0

Name of the student: kiran

Father's name: varun

Mother's name: kavya

Roll number: 45

Section: csm

College fee: 60000

Bus fee: 25000

Fees paid by the student: 40000

Remaining fee to be paid: 45000

Scholarship amount received by the student: 0

Name of the student: somesh

Father's name: chaitanya

Mother's name: sunitha

Roll number: 78

Section: csd

College fee: 60000

Bus fee: 25000

Fees paid by the student: 50000

Remaining fee to be paid: 35000

Scholarship amount received by the student: 20000

Name of the student: manish

Father's name: gopal

Mother's name: ratna

Roll number: 31

Section: csd

College fee: 60000

Bus fee: 25000

Fees paid by the student: 40000

Remaining fee to be paid: 45000

Scholarship amount received by the student: 45000

Press 1 to create

Press 2 to print the student name with due fee

Press 3 to print students names receiving scholarship amount

Press 4 to print the student names belonging to csd section

Press 5 for exit

Enter your choice: 2

--------students with due fee----------

Name: kavitha, Remaining Fee: 45000

Name: harshath, Remaining Fee: 25000

Name: kiran, Remaining Fee: 45000

Name: somesh, Remaining Fee: 35000

Name: manish, Remaining Fee: 45000

Press 1 to create

Press 2 to print the student name with due fee

Press 3 to print students names receiving scholarship amount

Press 4 to print the student names belonging to csd section

Press 5 for exit

Enter your choice: 3

----------students who received scholarship----------

Name: kavitha, Scholarship Amount: 20000

Name: somesh, Scholarship Amount: 20000

Name: manish, Scholarship Amount: 45000

Press 1 to create

Press 2 to print the student name with due fee

Press 3 to print students names receiving scholarship amount

Press 4 to print the student names belonging to csd section

Press 5 for exit

Enter your choice: 4

----------students belonging to csd section----------

Name: kavitha

Name: somesh

Name: manish

Press 1 to create

Press 2 to print the student name with due fee

Press 3 to print students names receiving scholarship amount

Press 4 to print the student names belonging to csd section

Press 5 for exit

Enter your choice: 5