**Source Code**

**#include<stdlib.h>**

**#include<string.h>**

**#include<stdio.h>**

**struct Student**

**{**

**int rollnumber;**

**char name[100];**

**char phone[100];**

**float percentage;**

**struct Student \*next;**

**}\* head;**

**void insert(int rollnumber, char\* name, char\* phone, float percentage)**

**{**

**struct Student \* student = (struct Student \*) malloc(sizeof(struct Student));**

**student->rollnumber = rollnumber;**

**strcpy(student->name, name);**

**strcpy(student->phone, phone);**

**student->percentage = percentage;**

**student->next = NULL;**

**if(head==NULL){**

**head = student;**

**}**

**else{**

**student->next = head;**

**head = student;**

**}**

**}**

**void search(int roll number**

**{**

**struct Student \* temp = head;**

**while(temp!=NULL){**

**if(temp->rollnumber==rollnumber){**

**printf("Roll Number: %d\n", temp->rollnumber);**

**printf("Name: %s\n", temp->name);**

**printf("Phone: %s\n", temp->phone);**

**printf("Percentage: %0.4f\n", temp->percentage);**

**return;**

**}**

**temp = temp->next;**

**}**

**printf("Student with roll number %d is not found !!!\n", rollnumber);**

**}**

**void update(int rollnumber)**

**{**

**struct Student \* temp = head;**

**while(temp!=NULL){**

**if(temp->rollnumber==rollnumber){**

**printf("Record with roll number %d Found !!!\n", rollnumber);**

**printf("Enter new name: ");**

**scanf("%s", temp->name);**

**printf("Enter new phone number: ");**

**scanf("%s", temp->phone);**

**printf("Enter new percentage: ");**

**scanf("%f",&temp->percentage);**

**printf("Updation Successful!!!\n");**

**return;**

**}**

**temp = temp->next;**

**}**

**printf("Student with roll number %d is not found !!!\n", rollnumber);**

**}**

**void Delete(int rollnumber)**

**{**

**struct Student \* temp1 = head;**

**struct Student \* temp2 = head;**

**while(temp1!=NULL){**

**if(temp1->rollnumber==rollnumber){**

**printf("Record with roll number %d Found !!!\n", rollnumber);**

**if(temp1==temp2){**

**head = head->next;**

**free(temp1);**

**}**

**else{**

**temp2->next = temp1->next;**

**free(temp1);**

**}**

**printf("Record Successfully Deleted !!!\n");**

**return;**

**}**

**temp2 = temp1;**

**temp1 = temp1->next;**

**}**

**printf("Student with roll number %d is not found !!!\n", rollnumber);**

**}**

**void display()**

**{**

**struct Student \* temp = head;**

**while(temp!=NULL){**

**printf("Roll Number: %d\n", temp->rollnumber);**

**printf("Name: %s\n", temp->name);**

**printf("Phone: %s\n", temp->phone);**

**printf("Percentage: %0.4f\n\n", temp->percentage);**

**temp = temp->next;**

**}**

**}**

**int main()**

**{**

**head = NULL;**

**int choice;**

**char name[100];**

**char phone[100];**

**int rollnumber;**

**float percentage;**

**printf("1 to insert student details\n2 to search for student details\n3 to delete student details\n4 to update student details\n5 to display all student details");**

**do**

**{**

**printf("\nEnter Choice: ");**

**scanf("%d", &choice);**

**switch (choice)**

**{**

**case 1:**

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

**scanf("%d", &rollnumber);**

**printf("Enter name: ");**

**scanf("%s", name);**

**printf("Enter phone number: ");**

**scanf("%s", phone);**

**printf("Enter percentage: ");**

**scanf("%f", &percentage);**

**insert(rollnumber, name, phone, percentage);**

**break;**

**case 2:**

**printf("Enter roll number to search: ");**

**scanf("%d", &rollnumber);**

**search(rollnumber);**

**break;**

**case 3:**

**printf("Enter roll number to delete: ");**

**scanf("%d", &rollnumber);**

**Delete(rollnumber);**

**break;**

**case 4:**

**printf("Enter roll number to update: ");**

**scanf("%d", &rollnumber);**

**update(rollnumber);**

**break;**

**case 5:**

**display();**

**break;**

**}**

**} while (choice != 0);**

**}**