**Viva 2**

Exp. Create a linked list with the following records, name, age, and place.

Search for the place, if the place is Delhi, replace it with New Delhi.

Delete the entries where the age is greater than 90 years.

**Coding:**

#include <stdlib.h>

#include <string.h>

#include <stdio.h>

struct Student

{

    int age;

    char name[100];

    char place[100];

    struct Student \*next;

} \* head;

void insert(int age, char \*name, char \*place)

{

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

    student->age = age;

    strcpy(student->name, name);

    strcpy(student->place, place);

    student->next = NULL;

    if (head == NULL)

    {

        head = student;

    }

    else

    {

        student->next = head;

        head = student;

    }

}

void search(int age)

{

    struct Student \*temp = head;

    while (temp != NULL)

    {

        if (temp->age == age)

        {

            printf("Age: %d\n", temp->age);

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

            printf("Place: %s\n", temp->place);

            return;

        }

        temp = temp->next;

    }

    printf("Student with Age %d is not found !!!\n", age);

}

void update(int age)

{

    struct Student \*temp = head;

    while (temp != NULL)

    {

        if (temp->age == age)

        {

            printf("Record with age %d Found !!!\n", age);

            printf("Enter new name: ");

            scanf("%s", temp->name);

            printf("Enter new place: ");

            scanf("%s", temp->place);

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

            return;

        }

        temp = temp->next;

    }

    printf("Student with age %d is not found !!!\n", age);

}

void Delete(int age)

{

    struct Student \*temp1 = head;

    struct Student \*temp2 = head;

    while (temp1 != NULL)

    {

        if (temp1->age == age)

        {

            printf("Record with age %d Found !!!\n", age);

            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 age %d is not found !!!\n", age);

}

void display()

{

    struct Student \*temp = head;

    while (temp != NULL)

    {

        printf("Age: %d\n", temp->age);

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

        printf("Place: %s\n", temp->place);

        temp = temp->next;

    }

}

int main()

{

    head = NULL;

    int choice;

    int age;

    char name[100];

    char place[100];

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

    do

    {

        printf("\nEnter Choice: ");

        scanf("%d", &choice);

        switch (choice)

        {

        case 1:

            printf("Enter Age: ");

            scanf("%d", &age);

            printf("Enter Name: ");

            scanf("%s", name);

            printf("Enter place: ");

            scanf("%s", place);

            insert(age, name, place);

            break;

        case 2:

            printf("Enter age to search: ");

            scanf("%d", &age);

            search(age);

            break;

        case 3:

            printf("Enter age to search: ");

            scanf("%d", &age);

            Delete(age);

            break;

        case 4:

            printf("Enter age to search: ");

            scanf("%d", &age);

            update(age);

            break;

        case 5:

            display();

            break;

        }

    } while (choice != 0);

}

**Screenshot:**



