PPS MINI PROJECT

STUDENT RECORD SYSTEM

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SECTION - U2

CSE (IoT)

AIM :-

To create a project on **Student record System** using C language.

ALGORITHM :-

Step 1 - Start
Step 2 - Declare the function prototypes of all the functions you're going to use in the program
Step 3 - Declare the structure named student
Step 4 - Then, in the main function, print the information you want to show the user when they run the program and assign characters to each option.
Step 5 - Using the case control instruction switch, choose the option you want to proceed with. (For example, 1 - Add student, 2-Student record etc.)
Step 6 - Now define the various functions
Step 7 - In addstudent function, declare the variables and take input from the user.
Step 8 - In studentrecord function, print the information you've stored using the addstudent function.
Step 9 - In searchstudent function, take input from the user in the form of Roll No. and display the record of the student associated with the roll no.
Step 10 - In delete function, take input from the user in the form of roll no. and delete the record of the student associated with that roll no.
Step 11 - Stop

PROGRAM :-

```
#include <stdio.h>
#include <stdlib.h>

void addstudent();
void studentrecord();
```

```
void searchstudent();
void delete();

struct student
{
   char first_name[20];
   char last_name[20];
   int roll_no;
   char Class[10];
    char vill[20];
   float per;
};

void main()
{
          int choice;
   while(choice!=5){
          printf("\n\n\n\n\t\t\t**************************************\n");
          printf("\t\t\t         SRMIST,
KATTANKULATHUR\n\t\t\t----------------------------------\n");
          printf("\t\t\t~ ~ ~ ~ ~ STUDENT RECORD SYSTEM ~ ~ ~ ~ ~");
   printf("\n\n\n\t\t\t\t    1. Add Student\n");
   printf("\t\t\t\t    2. Students Records\n");
   printf("\t\t\t\t    3. Search Student\n");
   printf("\t\t\t\t    4. Delete Student\n");
   printf("\t\t\t\t    5. Exit\n");
   printf("\t\t\t\t   _____\n");
   printf("\t\t\t\t    ");
   scanf("%d",&choice);

  switch(choice){
     case 1:
       addstudent();
      break;

          case 2:
       studentrecord();
       printf("\t\t\t\t  Press any key to exit..... \n");
       getch();
                  break;
```

```
    case 3:
       searchstudent();
       printf("\n\t\t\t\t  Press any key to exit.....\n");
                    getch();
                    break;

    case 4:
      delete();
      printf("\n\t\t\t\tPress any key to exit.....\n");
      getch();
      break;

          case 5:
       printf("\n\t\t\t\tThank you for using this software.\n\n\t\t\t\tCreated by - Navdeep
Singh Jakhar (RA2111032010030)\n\n");
        exit(0);
        break;

    default :
       getch();
       printf("\n\t\t\t\t\tEnter a valid number\n\n");
       printf("\t\t\t\tPress any key to continue.....");
       getch();
       break;
      }
      }
      getch();
    }

 void addstudent()
{
    char another;
    FILE *fp;
    int n,i;
    struct student info;
   do{
      printf("\t\t\t=======Add Student's Info=======\n\n\n");
      fp=fopen("information1.txt","a");

       printf("\n\t\t\tEnter First Name     : ");
        scanf("%s",info.first_name);
```

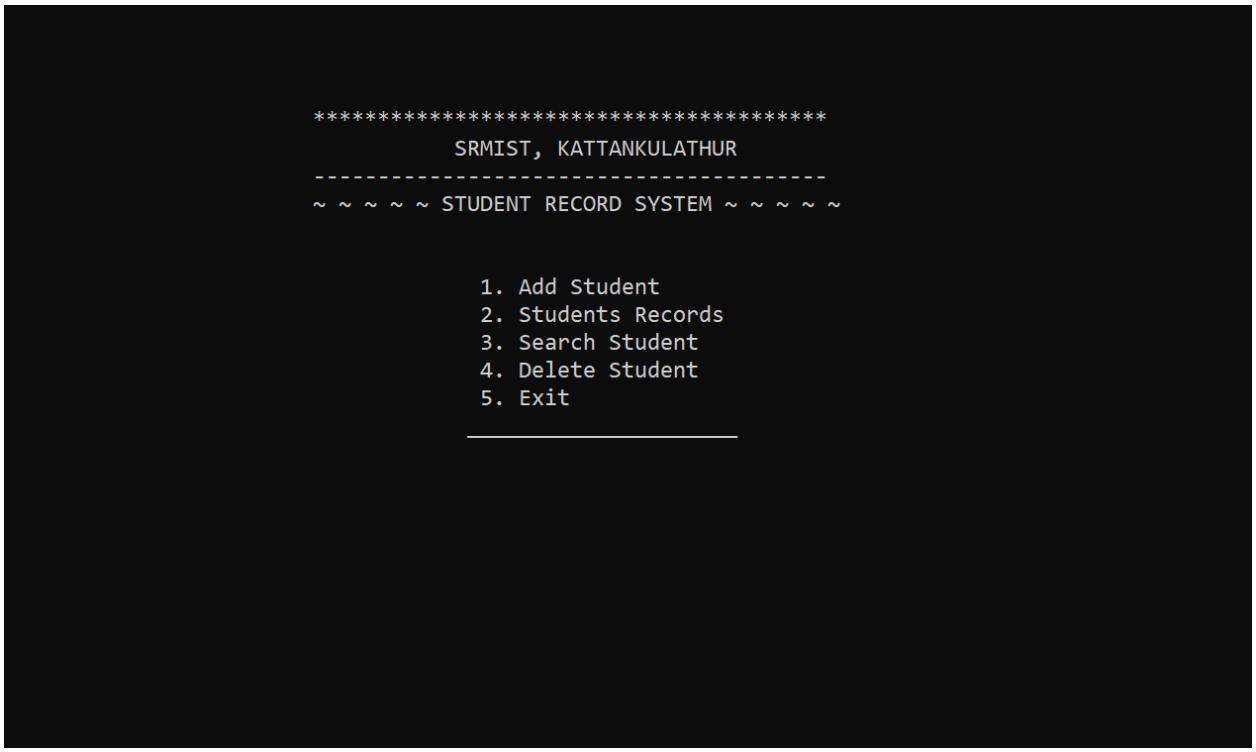
```
        printf("\n\t\t\tEnter Last Name    : ");
        scanf("%s",info.last_name);
        printf("\n\t\t\tEnter Roll-No      : ");
        scanf("%d",&info.roll_no);
        printf("\n\t\t\tEnter Class(course) : ");
        scanf("%s",info.Class);
        printf("\n\t\t\tEnter Address      : ");
        scanf("%s",info.vill);
        printf("\n\t\t\tEnter Percentage   : ");
        scanf("%f",&info.per);
        printf("\n\t\t\t_____________________________________\n");

     if(fp==NULL){
       fprintf(stderr,"can't open file");
    }
else
   {
       printf("\t\t\tRecord stored successfully\n");
    }
    fwrite(&info, sizeof(struct student), 1, fp);
    fclose(fp);
    printf("\t\t\tYou want to add another record?(y/n) : ");
    scanf("%s",&another);
   }while(another=='y'||another=='Y');
}

 void studentrecord()
{
    FILE *fp;
   struct student info;
   fp=fopen("information1.txt","r");
    printf("\t\t\t\t=======STUDENTS RECORD=======\n\n\n");

   if(fp==NULL)
{
       fprintf(stderr,"can't open file\n");
       exit(0);
    }
else
   {
       printf("\t\t\t\tRECORDS :\n");
```

```
      printf("\t\t\t\t_____________\n\n");
   }
      while(fread(&info,sizeof(struct student),1,fp))
{
      printf("\n\t\t\t\t Student Name  : %s %s",info.first_name,info.last_name);
      printf("\n\t\t\t\t Roll NO      : %d",info.roll_no);
      printf("\n\t\t\t\t Class        : %s",info.Class);
      printf("\n\t\t\t\t Village/City  : %s",info.vill);
      printf("\n\t\t\t\t Percentage    : %f",info.per);
      printf("\n\t\t\t\t _____________________________________\n");
       }
      fclose(fp);
      getch();
}

void searchstudent(){
     struct student info;
    FILE *fp;
    int roll_no,found=0;

   fp=fopen("information1.txt","r");
   printf("\t\t\t\t=======SEARCH STUDENTS RECORD=======\n\n\n");
   printf("\t\t\tEnter the roll no : ");
   scanf("%d",&roll_no);
   while(fread(&info,sizeof(struct student),1,fp)>0)
{
      if(info.roll_no==roll_no)
       {
      found=1;
      printf("\n\n\t\t\tStudent Name : %s %s",info.first_name,info.last_name);
      printf("\n\t\t\tRoll NO       : %d",info.roll_no);
      printf("\n\t\t\tClass        : %s",info.Class);
      printf("\n\t\t\tAddress       : %s",info.vill);
      printf("\n\t\t\tPercentage     : %f",info.per);
      printf("\n\t\t\t_____________________________________\n");
       }
   }
   if(!found){
     printf("\n\t\t\tRecord not found\n");
   }
   fclose(fp);
```

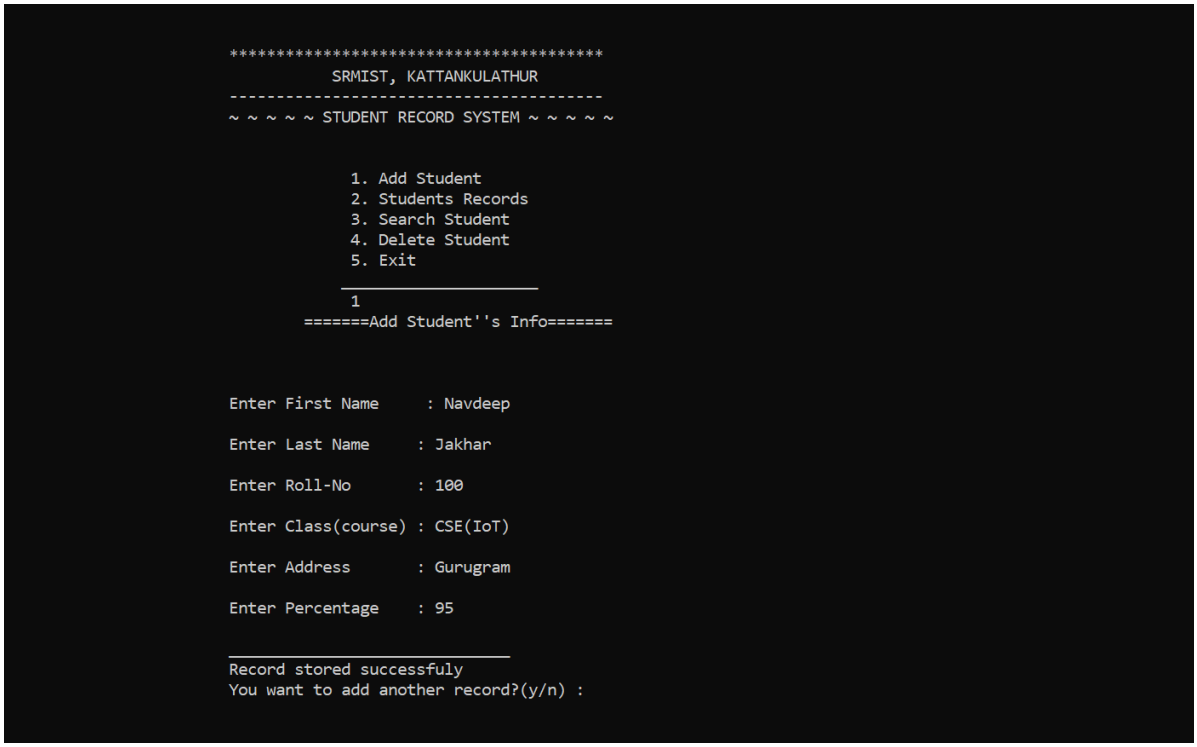
```
   getch();
}

void delete(){
     struct student info;
     FILE *fp, *fp1;

   int roll_no,found=0;
      printf("\t\t\t\t=======DELETE STUDENTS RECORD=======\n\n\n");
   fp=fopen("information1.txt","r");
   fp1=fopen("temp.txt","w");
   printf("\t\t\t\tEnter the roll no : ");
   scanf("%d",&roll_no);
   if(fp==NULL){
       fprintf(stderr,"can't open file\n");
       exit(0);
    }
   while(fread(&info,sizeof(struct student),1,fp)){
      if(info.roll_no == roll_no){
         found=1;
      }else{
        fwrite(&info,sizeof(struct student),1,fp1);
      }
   }
    fclose(fp);
    fclose(fp1);

   if(!found)
      {
       printf("\n\t\t\t\tRecord not found\n");
      }
    if(found){
   remove("information1.txt");
      rename("temp.txt","information1.txt");
      printf("\n\t\t\t\tRecord deleted successfully\n");
      }
 getch();
 }
```

OUTPUT SCREEN SHOTS :-

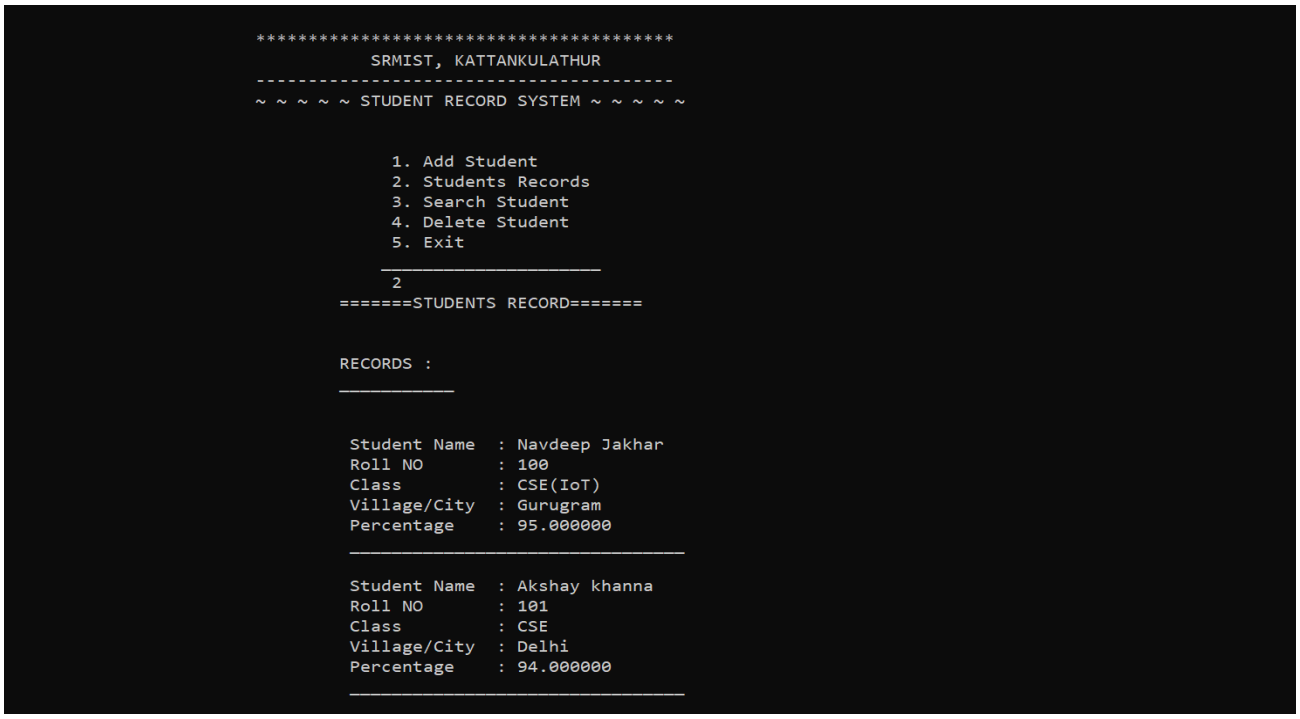
1. When code is compiled and run, this is printed on the screen.



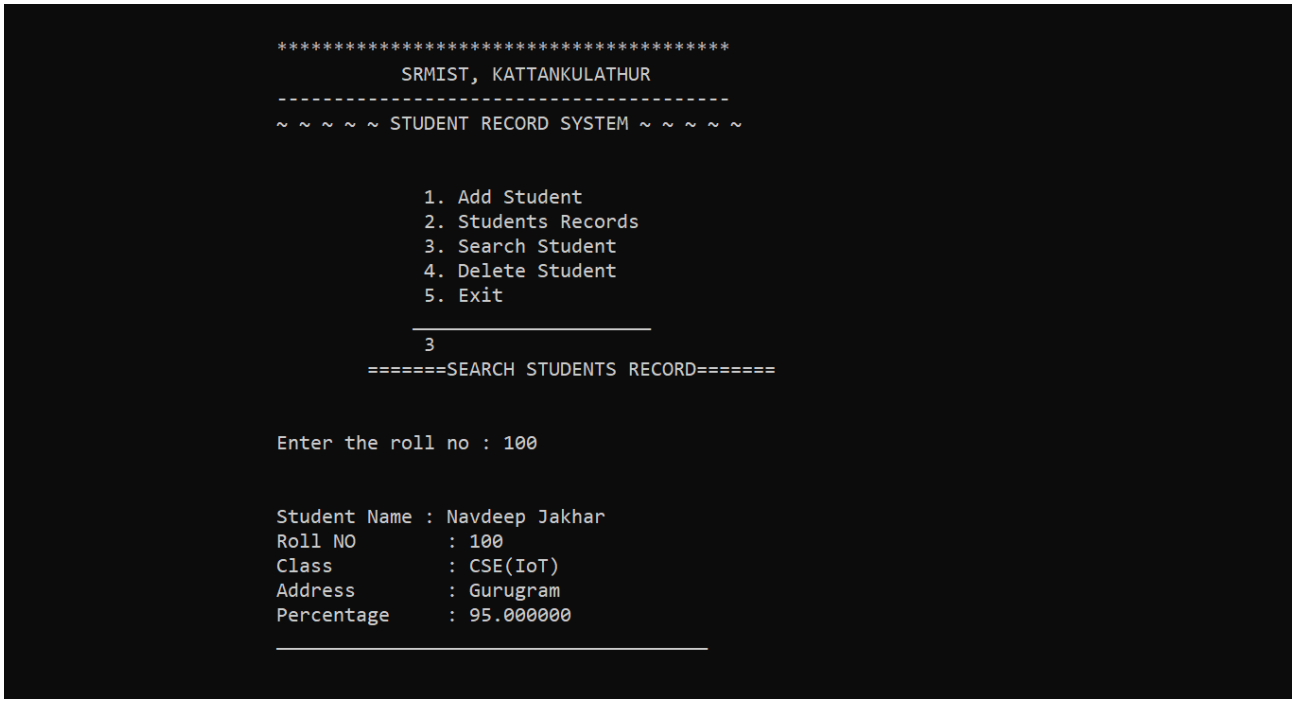
2. When option 1 is selected, enter the student details.



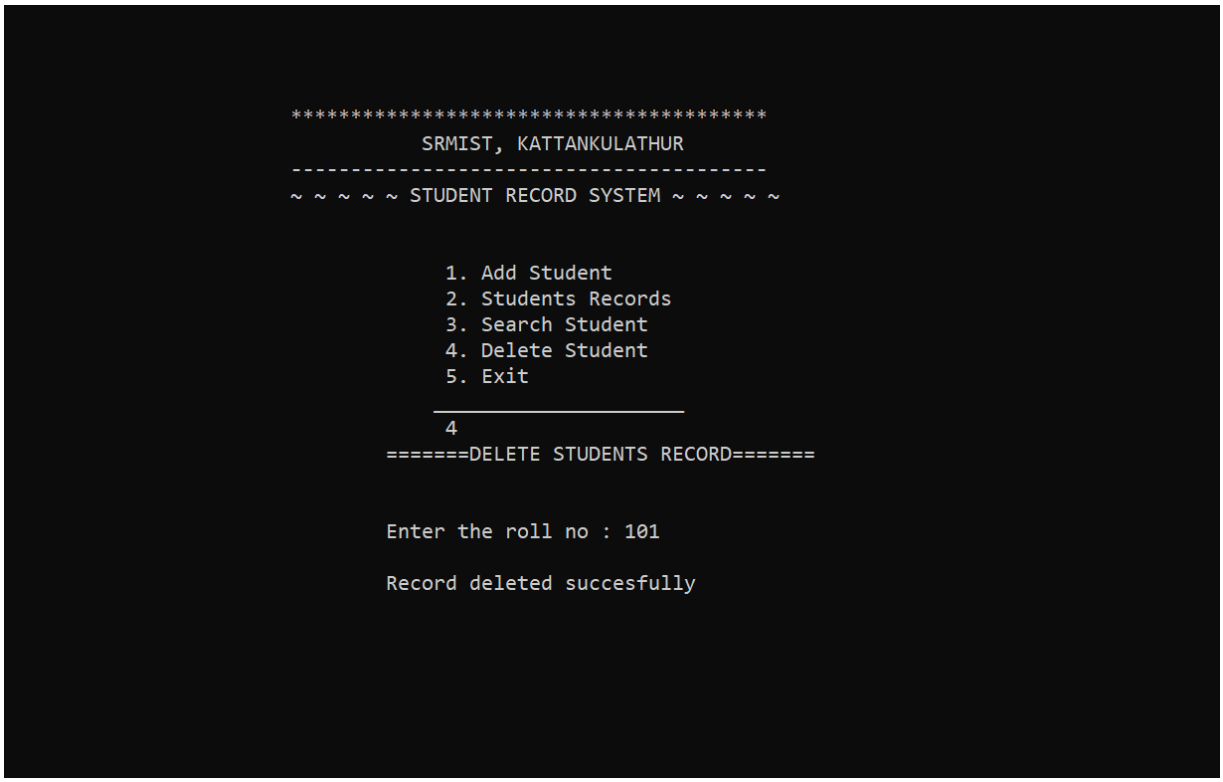
3. When option 2 is selected, display the records of all the students.



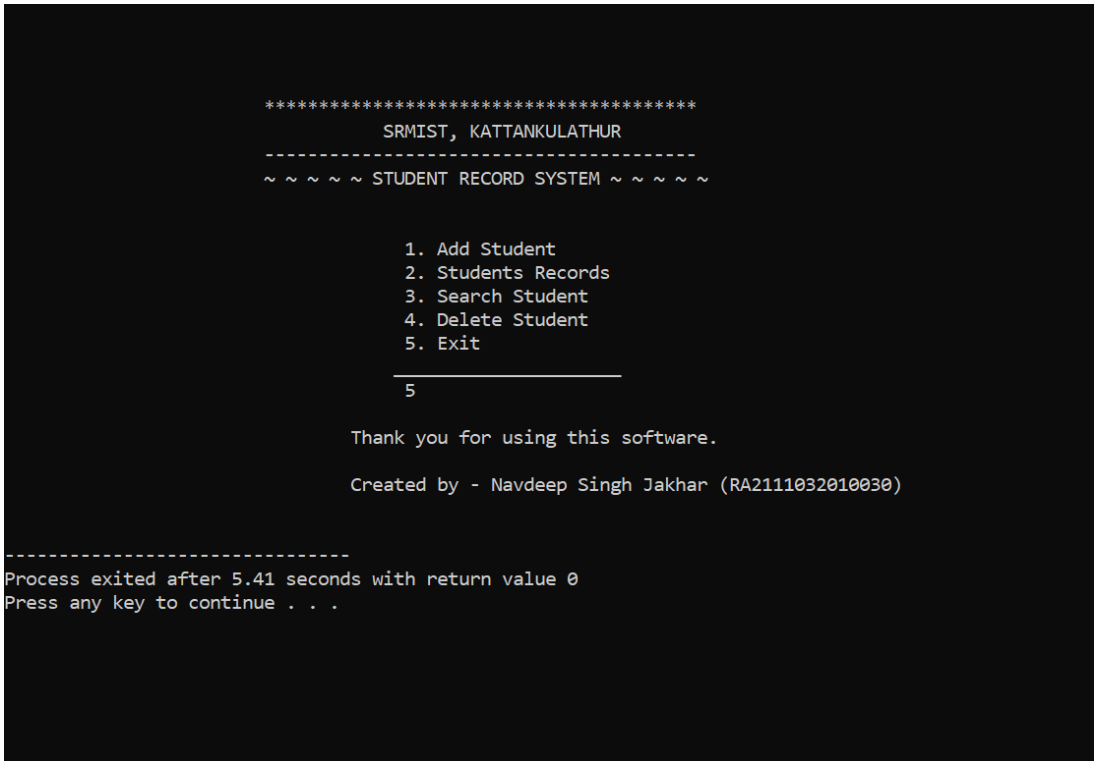
4. When option 3 is selected, search all the records and display the record of the student with the roll no. which the user provided as input.



5. When option 4 is selected, delete the record of the student associated with the roll no. provided as input.



6. When option 5 is selected, exit the program.



RESULT :-

Hence, a C program to demonstrate a student record system has been created and executed in the compiler to get the desired output.