DAYANANDA SAGAR UNIVERSITY

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A MINI-PROJECT REPORT

ON

"STUDENT DATABASE MANAGEMENT STSTEM"

Submitted by

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INTRODUCTION

Databases are being used in every aspect of our lives right now. Trillions of bytes of data are being stored in servers around the world.

SQL is one of the most basic methods to use such a database. C++ can also be used to maintain such a database

A student handling program that handles student data built using various C++ concepts are used to perform operations and show successful implementation at class and objects including of the programming language classes, file handling, loops and switch.

A user can add display search modify and delete student records. The user also has the option to view the result of any particular student using this program .

APPLICATIONS

This system can be used in various other sectors by modifying some parameters which suit the particular application, some of the sectors which use this include:

1)Universities

2)Banking

3)Airlines

4)Finance

5)Telecommunication

6)Sales

7)Manufacturing

PROBLEM

In institutions it is very difficult to maintain the student's data, due to this reason it is very difficult to check any information about any student.

Solution:

It makes it easier for teachers to store ,access data about any particular student when required

Due to many reasons we may want create a system which can handle students information so that these difficulties can be decreased. So this system student information system was designed

APPROACH

We created individual functions for every operation. All the functions are unified together to form the information system.

We can perform the following tasks on the student information system:

1) To add the student data in database.

2) To search the student data from the database.
3) To modify the student data in database.
4) To display the data

TASKS

Student information system performs the following tasks:

1)Record Entry Section:

In this section the data can be entered and saved.

2)Searching record section:

In this section we can search any student data using their roll numbers, which is unique to every student in the institution.

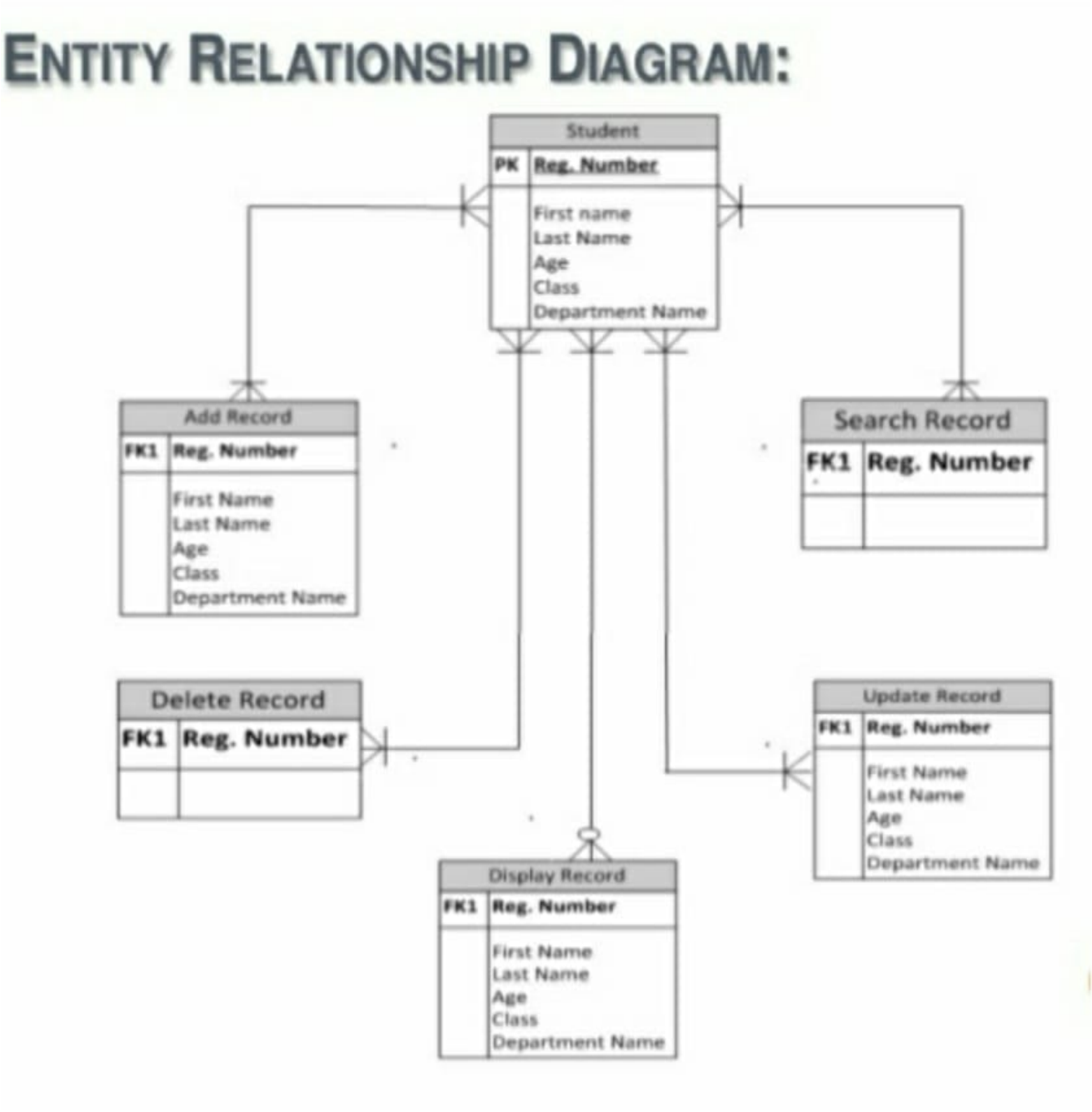
3)Display Section:

In this section we can display all student data once glance

4)Quit section:

By selecting this the user can exit the program.

BLOCK DIAGRAM



ADVANTAGES

Some of the advantages a system like are:

- Paper work can be avoided.
- There is efficient control over student data.
- It makes it easier to access student data like attendance, marks, address etc.

DISADVANTAGES

- Absence of proper internal network makes it difficult for the user to access information.
- If the data base is not secure it is easy for someone to manipulate the user data.

Code

```
#include<iostream>
#include<string>
#include<conio.h>
#include<stdlib.h>
using namespace std;

int main();
void show_data(int searchkey);
void get_data(int i);
void search_student(int searchkey);
void add_student();
void edit_student(int idnumber);
void fullscreen();
int ts;

struct student
{
    int rollno;
    string name;
    string fname;
    string cell;
    string dob;
    float cgpa;
    string address;
};

student rec[50];
int main()
{
    int choice;
    int idnumber;
    int searchkey;

    cout<<"\n\t\tWhat do you want to do?"<<endl;
    cout<<"\t\t----------------------"<<endl;
    cout<<"\t\t1-Add student"<<endl;
    cout<<"\t\t2-Edit student"<<endl;
    cout<<"\t\t3-Search student"<<endl;
    cout<<"\t\t4-Quit Program"<<endl;
    cout<<"\t\t----------------------"<<endl;
    cout<<"Enter your choice: ";

        cin>>choice;
```

```
    {
        case 1:
```

```
            {
                edit_student(idnumber);
            }
        }
            break;
```

```
    cout<<"Enter student's cell phone number: ";
    cin>>rec[i].cell;
    if(rec[i].cell.length()!=10)
    {
        cout<<"Invalid value";
        exit(0);
```

```
        }
    }
}

void add_student()
{
    for(int i=0;i<=ts;i++)
    {
```

```
212             get_data(i);
213             cout<<"\n\nRecord updated successfully."<<endl;
214             system("pause");
215             main();
216         }
217     }
218 }
```

OUTPUT

Displaying student information after it is entered:

```
--------------------------------------------------------------------------------
-------------------------Student record Table-----------------------------------
--------------------------------------------------------------------------------
ID      Roll    Name    Father  Cell no.        DOB             CGPA    Address

--------------------------------------------------------------------------------
0       45      simon   james   7865768867      3/3/2000        8       jpnagar

1       4       vikram  harish  8976567876      16/3/2000       9.3     banashankari

--------------------------------------------------------------------------------
---------------------------------FINISH-----------------------------------------
--------------------------------------------------------------------------------
Press any key to continue . . .
```

Displaying data of a particular student after searching for it :

```
Press any key to continue . . .

               What do you want to do?
               ----------------------
               1-Add student
               2-Edit student
               3-Search student
               4-Quit Program
               ----------------------
Enter your choice: 3
Enter roll_no of student you want to search: 4
ID      Roll    Name    Father  Cell no.        DOB             CGPA    Address

1       4       vikram  harish  8976567876      16/3/2000       9.3     banashankari

Press any key to continue . . .
```

Editing a student’s records:

```
Press any key to continue . . .

               What do you want to do?
               ----------------------
               1-Add student
               2-Edit student
               3-Search student
               4-Quit Program
               ----------------------
Enter your choice: 2

-------------------------------------------------------------------------------
--------------------------Student record Table---------------------------------
-------------------------------------------------------------------------------
ID      Roll    Name    Father  Cell no.        DOB             CGPA    Address

-------------------------------------------------------------------------------
0       45      simon   james   7865768867      3/3/2000        8       jpnagar

1       4       vikram  harish  8976567876      16/3/2000       9.3     banashankari

-------------------------------------------------------------------------------
Which ID number your want to edit: 0

Existed information about this record.

-------------------------------------------------------------------------------
ID      Roll    Name    Father  Cell no.        DOB             CGPA    Address

-------------------------------------------------------------------------------
0       45      simon   james   7865768867      3/3/2000        8       jpnagar



Enter new data for above shown record.

Enter student roll number: 39
Enter student name: Abhiram
Enter student's Father name: Manoj
Enter student's cell phone number: 7567658768
Enter student's Date of Birth(dd/mm/yyyy): 16/5/2000
Enter student's CGPA: 7.8
Enter student's Address: malleswaram


Record updated successfully.
```

CONCLUSION

Student Information System is a fully computerized system or a database where all the student related data can be stored, retrieved, monitored & analysed.

Functionalities like registration, admission, billing, financial aid provision to students make the entire process of enrolment quick, systematic & error-free.

It is of vital importance in institutions with a large crowd as it is highly impossible and inefficient to maintain the records of the students on paper and would require a lot of man power and resources for it to function.

This system solves most of the hassle and makes it efficient which means it would require less resources to maintain and store all the data of the students.