**Project on Student Management System**

This project can be used to save the data of student in a particular file. That file is saved in that system.This student management system is very helpful to arrange tha data in a simple format.

**ACKNOWLEDGEMENT**

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**Minimum Required**

1. **P4 Processor with 2.4 GHz**
2. **Minimum 256 Mb RAM**
3. **Turbo C++**

**WORKING DESCRIPTION**

**MENU**

1. ENTER STUDENT DATA

2. VIEW STUDENT DATA

3. DELETE STUDENT DATA

4. SEARCH STUDENT DATA

5. EDIT STUDENT DATA

6. START AGAIN

7. EXIT

**//code**

**#include<iostream.h>**

**#include<conio.h>**

**#include<fstream.h>**

**#include<string.h>**

**#include<stdio.h>**

**#include<ctype.h>**

**#include<stdlib.h>**

**class student**

**{**

**private:**

**char name[30];**

**char age[2];**

**char address[150];**

**char str[60];**

**char pursue[60];**

**char dob[10];**

**char mbl[12];**

**char eml[30];**

**public:**

**char roll[13];**

**void input()**

**{**

**int i,j,k;**

**k:**

**cout<<"\nEnter name:- ";**

**gets(name);**

**for(i=0;name[i]!='\0';i++)**

**{**

**if(isdigit(name[i])||name[i]=='!'||name[i]=='@'||name[i]=='#'||name[i]=='$'||name[i]=='%'||name[i]=='^'||name[i]=='&')**

**{**

**cout<<"\n\*\*\*SORRY! INVALID INPUT PLEASE ENTER THE NAME AGAIN\*\*\*"<<endl;**

**goto k;**

**}**

**}**

**int t;**

**t:**

**cout<<"\nEnter ROLL NUMBER:- ";**

**cin.get(roll,13);**

**int u;**

**u:**

**cin.ignore();**

**cout<<"\nEnter stream:- ";**

**gets(str);**

**for(i=0;str[i]!='\0';i++)**

**{**

**if(isdigit(str[i]))**

**{**

**cout<<"\nINVALID INPUT PLEASE ENTER STREAM AGAIN.";**

**goto u;**

**}**

**else**

**continue;**

**}**

**strcpy(pursue,str);**

**//cout<<"strcpy"<<roll<<endl;**

**cout<<"\nEnter Address:- ";**

**gets(address);**

**cout<<"\nEnter mobile no:-";**

**cin>>mbl;**

**cout<<"\nEnter email id:-";**

**gets(eml);**

**}**

**void output()**

**{**

**cout<<"\n--------------------------------------------------------"<<endl;**

**cout<<"\nName :- ";**

**cout<<name;**

**cout<<"\nRoll Number:- "<<roll;**

**cout<<"\nPursuing:- "<<pursue;**

**cout<<"\nAddress:- "<<address;**

**cout<<"\nmobile no:-"<<mbl;**

**cout<<"\nemail id:-"<<eml;**

**cout<<"\n--------------------------------------------------------"<<endl;**

**}**

**char \*retroll()**

**{**

**return &roll[0];**

**}**

**};**

**int is\_empty()**

**{**

**int length;**

**ifstream fin;**

**fin.open("student.dat",ios::binary|ios::in);**

**fin.seekg(0,ios::end);**

**length=fin.tellg();**

**fin.close();**

**return length;**

**}**

**void write\_data()**

**{**

**int v;**

**student ob;**

**student obj;**

**fstream fin;**

**fin.open("student.dat",ios::binary|ios::in);**

**ofstream fout;**

**fout.open("student.dat",ios::binary|ios::app);**

**v:**

**ob.input();**

**while(fin.read((char \*)&obj,sizeof(obj)))**

**{**

**if(strcmp(obj.retroll(),ob.roll)==0)**

**{**

**cout<<"\n\*\*\*Roll Number already exist.\*\*\*"<<endl;**

**cout<<"\n---WRITING FAILED---"<<endl;**

**cout<<"\n```PLEASE ENTER ALL DATA AGAIN```"<<endl;**

**goto v;**

**}**

**}**

**fout.write((char\*)&ob,sizeof(ob));**

**fout.close();**

**}**

**void read\_data()**

**{**

**int checkend;**

**ifstream fin;**

**student ob;**

**fin.open("student.dat",ios::binary|ios::in);**

**checkend=is\_empty();**

**if(checkend==0)**

**{**

**char ch[3];**

**cout<<"\n\*\*\*SORRY! DATABASE IS BLANK\*\*\*"<<endl;**

**cout<<"\n##Do you want to write some data to database##:- ";**

**cin>>ch;**

**cin.ignore();**

**if(strcmp(ch,"yes")==0||strcmp(ch,"Yes")==0||strcmp(ch,"YES")==0)**

**{**

**write\_data();**

**}**

**else**

**exit(0);**

**}**

**else**

**while(fin.read((char\*)&ob,sizeof(ob)))**

**{**

**ob.output();**

**cout<<endl;**

**}**

**}**

**void data\_delete(char x[10])**

**{**

**student ob;**

**int flag=0;**

**ifstream fin1;**

**fin1.open("student.dat",ios::binary|ios::in);**

**while(fin1.read((char \*)&ob,sizeof(ob)))**

**{**

**if(strcmp(ob.retroll(),x)==0)**

**{**

**cout<<"\n\*\*\*Data Found\*\*\*"<<endl;**

**cout<<"\n\*\*\*DATA DELETED FROM DATABASE\*\*\*"<<endl;**

**flag=1;**

**break;**

**}**

**}**

**fin1.close();**

**if(flag==1)**

**{**

**student obj;**

**student obj1;**

**ifstream fin;**

**fin.open("student.dat",ios::in);**

**if(!fin)**

**{**

**cout<<"\nFILE NOT OPENED";**

**return;**

**}**

**ofstream fout;**

**fout.open("temp.dat",ios::binary|ios::out);**

**if(!fout)**

**{**

**cout<<"\nFILE NOT OPENED";**

**return;**

**}**

**while(fin.read((char \*)&obj,sizeof(obj)))**

**{**

**if(strcmp(obj.retroll(),x)!=0)**

**{**

**fout.write((char \*)&obj,sizeof(obj));**

**}**

**}**

**fin.close();**

**fout.close();**

**remove("student.dat");**

**rename("temp.dat","student.dat");**

**ifstream in;**

**in.open("student.dat",ios::binary|ios::in);**

**if(!in)**

**{**

**cout<<"\n\*\*\*FILE NOT OPENED\*\*\*";**

**return;**

**}**

**int checkend;**

**char ch[3];**

**cout<<"\nCurrent database is:- "<<endl;\**

**checkend=is\_empty();**

**if(checkend==0)**

**{**

**cout<<"\n\*\*\*BLANK\*\*\*"<<endl;**

**cout<<"\n##Do you want to write some data to database##:- ";**

**cin>>ch;**

**cin.ignore();**

**if(strcmp(ch,"yes")==0||strcmp(ch,"Yes")==0||strcmp(ch,"YES")==0)**

**{**

**write\_data();**

**}**

**else**

**exit(0);**

**}**

**else**

**while(in.read((char \*)&obj1,sizeof(obj1)))**

**{**

**obj1.output();**

**cout<<endl;**

**}**

**in.close();**

**}**

**if(flag==0)**

**{**

**int checkend;**

**char ch[3];**

**checkend=is\_empty();**

**if(checkend==0)**

**{**

**cout<<"\nFile is empty now."<<endl;**

**cout<<"\n##Do you want to write some data to database##:- ";**

**cin>>ch;**

**cin.ignore();**

**if(strcmp(ch,"yes")==0||strcmp(ch,"Yes")==0||strcmp(ch,"YES")==0)**

**{**

**write\_data();**

**}**

**else**

**exit(0);**

**}**

**else**

**cout<<"\n\*\*\*Data not found\*\*\*"<<endl;**

**return;**

**}**

**}**

**void search\_data(char x[10])**

**{**

**int flag=0;**

**int checkend;**

**checkend=is\_empty();**

**if(checkend==0)**

**{**

**char ch[3];**

**cout<<"\n\*\*\*SORRY! DATABASE IS BLANK\*\*\*"<<endl;**

**cout<<"\n##Do you want to write some data to database##:- ";**

**cin>>ch;**

**cin.ignore();**

**if(strcmp(ch,"yes")==0||strcmp(ch,"Yes")==0||strcmp(ch,"YES")==0)**

**{**

**write\_data();**

**}**

**else**

**exit(0);**

**}**

**else**

**{**

**student obj;**

**ifstream fin;**

**fin.open("student.dat",ios::binary|ios::in);**

**while(fin.read((char\*)&obj,sizeof(obj)))**

**{**

**if(strcmp(obj.retroll(),x)==0)**

**{**

**flag=1;**

**cout<<"\nDATA FOUND AS FOLLOWING:- "<<endl;**

**obj.output();**

**}**

**}**

**if(flag==0)**

**cout<<"\nSORRY!!DATA NOT FOUND"<<endl;**

**}**

**}**

**void edit\_data(char m[10])**

**{**

**student ob;**

**fstream fin;**

**int flag=0;**

**fin.open("student.dat",ios::binary|ios::in|ios::out);**

**while(fin.read((char \*)&ob,sizeof(ob)))**

**{**

**if(strcmp(ob.retroll(),m)==0)**

**{**

**flag=1;**

**cout<<"\nDATA FOUND AS FOLLOWING:- "<<endl;**

**ob.output();**

**fin.seekg(-sizeof(ob),ios::cur);**

**ob.input();**

**fin.seekp(fin.tellg(),ios::cur);**

**fin.write((char \*)&ob,sizeof(ob));**

**}**

**}**

**if(flag==0)**

**{**

**cout<<"\nOOPS!!,SORRY NO DATA FOUND"<<endl;**

**}**

**fin.close();**

**}**

**int main()**

**{**

**int a1,a2,i;**

**char in[3],ch;**

**char spass[5],spass2[5];**

**cout<<"\t`````````````````````````````````````````````````````````````````````"<<endl;**

**cout<<endl;**

**cout<<"\t\t\t::::WELCOME TO STUDENT MANAGEMENT SYSTEM::::"<<endl;**

**cout<<endl;**

**cout<<"\t`````````````````````````````````````````````````````````````````````"<<endl;**

**a2:**

**cout<<"\n||write official to get started||"<<endl;**

**cin>>in;**

**if(strcmp(in,"Official")==0||strcmp(in,"official")==0||strcmp(in,"OFFICIAL")==0)**

**{**

**int a3,j;**

**char ch2;**

**a3:**

**i=0;**

**cout<<"\npress any key to continue:- "<<endl;**

**ch2=getch();**

**while(i!=0)**

**{**

**cout<<"\*";**

**spass2[i]=ch2;**

**ch2=getch();**

**i++;**

**}**

**if(strcmp("11111","11111")==0)**

**{**

**cout<<endl<<"\n---Choose option from menu.---"<<endl;**

**int l,m;**

**int c;**

**char s[3];**

**m:**

**cout<<"\n\t\t\t\t\t::MENU::"<<endl;**

**cout<<"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*";**

**cout<<"\nPRESS 1 TO ENTER STUDENT DATA";**

**cout<<"\nPRESS 2 TO VIEW STUDENT DATA";**

**cout<<"\nPRESS 3 TO DELETE STUDENT DATA";**

**cout<<"\nPRESS 4 TO SEARCH STUDENT DATA";**

**cout<<"\nPRESS 5 TO EDIT STUDENT DATA";**

**cout<<"\nPRESS 6 TO START AGAIN";**

**cout<<"\nPRESS 7 TO EXIT CONSOLE"<<endl;**

**cout<<"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"<<endl;**

**cin>>c;**

**cin.ignore();**

**switch(c)**

**{**

**case 1:**

**{**

**l:**

**write\_data();**

**cout<<"\n\*\*\*Data written to FILE.\*\*\*"<<endl;**

**cout<<"\nDo you want to enter more data:- ";**

**cin>>s;**

**cin.ignore();**

**if(strcmp(s,"yes")==0||strcmp(s,"Yes")==0||strcmp(s,"YES")==0)**

**goto l;**

**else**

**goto m;**

**break;**

**}**

**case 2:**

**{**

**read\_data();**

**goto m;**

**break;**

**}**

**case 3:**

**{**

**int r;**

**char t[12];**

**int z;**

**char d[3];**

**r:**

**cout<<"\nEnter the roll number whose data you want to delete:- ";**

**gets(t);**

**data\_delete(t);**

**cout<<"\nDo you want to delete more data:- ";**

**cin>>d;**

**if(strcmp(d,"yes")==0||strcmp(d,"Yes")==0||strcmp(d,"YES")==0)**

**goto r;**

**else**

**goto m;**

**break;**

**}**

**case 4:**

**{**

**char r1[12];**

**int i1;**

**char q[3];**

**i1:**

**cout<<"\nEnter Student's Roll whose data you want to search:- ";**

**gets(r1);**

**search\_data(r1);**

**cout<<"\nDo you want to search more data:- ";**

**cin>>q;**

**cin.ignore();**

**if(strcmp(q,"yes")==0||strcmp(q,"Yes")==0||strcmp(q,"YES")==0||strcmp(q,"y")==0)**

**goto i1;**

**else**

**goto m;**

**break;**

**}**

**case 5:**

**{**

**char y[12];**

**int p;**

**char q[3];**

**p:**

**cout<<"\nEnter Roll number whose data to be Edited:- ";**

**gets(y);**

**cin.ignore();**

**edit\_data(y);**

**cout<<"\nDo you want to edit more data:- ";**

**cin>>q;**

**if(strcmp(q,"yes")==0||strcmp(q,"Yes")==0||strcmp(q,"YES")==0)**

**goto p;**

**else**

**goto m;**

**break;**

**}**

**case 6:**

**{**

**cout<<"\n---LOGGED OUT SUCCESSFULLY.---"<<endl;**

**goto a2;**

**}**

**case 7:**

**exit(0);**

**default:**

**{**

**cin.clear();**

**cin.ignore();**

**cout<<"\nINVALID INPUT";**

**goto m;**

**}**

**};**

**}**

**else**

**{**

**cout<<"\n\*\*\*Invalid password,PLEASE ENTER AGAIN.\*\*\*"<<endl;**

**goto a3;**

**}**

**}**

**else**

**{**

**cout<<"\n\*\*\*Login Failed.\*\*\*"<<endl;**

**cout<<"\n\*\*\*SORRY! INVALID INPUT PLEASE ENTER AGAIN.\*\*\*"<<endl;**

**goto a2;**

**}**

**return 0;**

**}**

**Reference**

1. **https://www.youtube.com**
2. **https://www.geeksforgeeks.org**
3. [**https://www.google.com**](https://www.google.com)