**Practical No.10**

**File handling**

**Program Code:-**

#include <iostream>

#include <fstream>

using namespace std;

class student

{

int roll\_no;

char Name[30];

char Division[5];

char Address[50];

public:

void accept();

void display();

int rollno()

{

return roll\_no;

}

};

void student::accept()

{

cout<<"\nEnter Roll Number: ";

cin>>roll\_no;

cout<<"\nEnter Name: ";

cin.ignore();

cin.getline(Name,30);

cout<<"\nEnter Division: ";

cin>>Division;

cout<<"\nEnter Address: ";

cin>>Address;

cout<<"\n";

}

void student::display()

{

cout<<"\n "<<roll\_no<<"\t "<<Name<<" \t\t "<<Division<<"\t "<<Address;

}

void create()

{

student s;

int n, i;

ofstream out("Student.txt");

cout<<"\nHow many records do you want to enter?: ";

cin>>n;

for(i=0;i<n;i++)

{

s.accept();

out.write((char \*)&s,sizeof(s));

}

out.close();

}

void search()

{

int n, flag=0;

cout<<"\nEnter Roll Number To Be Searched: ";

cin>>n;

ifstream infile("Student.txt");

student s;

while(infile.read((char \*)&s,sizeof(s)))

{

if(s.rollno()==n)

{

cout<<"\nRecord Found\n";

cout<<"\nRoll Number Name Division Address";

s.display();

flag=1;

break;

}

}

if(flag==0)

{

cout<<"\nRecord Not Found.";

}

infile.close();

}

void display()

{

student s;

ifstream infile("Student.txt");

while(infile.read((char \*)&s, sizeof(s)))

{

s.display();

}

infile.close();

}

void add\_record()

{

student s;

ofstream outfile("Student.txt",ios::app);

s.accept();

outfile.write((char \*)&s,sizeof(s));

outfile.close();

cout<<"Record Successfully Added.";

}

void delete\_record()

{

int n, flag=0;

cout<<"\nEnter Roll Number Whose Record To Be Deleted:";

cin>>n;

ifstream infile("student.txt"); // to read from source file

ofstream temp("temp.txt"); // to write in destination file(temporary file)

student s;

while(infile.read((char \*)&s, sizeof(s)))

{

if(s.rollno()!=n)

{

temp.write((char \*)&s, sizeof(s));

}

else

{

flag=1;

cout<<"\nRecord Successfully Deleted.";

}

}

if(flag==0)

{

cout<<"\nRecord Not Found.";

}

infile.close();

temp.close();

remove("Student.txt");

rename("temp.txt","Student.txt");

}

int main()

{

int choice,roll\_no,Marks;

char Name[30];

ofstream out("Student.txt");

out.close();

do

{ cout<<"\n";

cout<<"\nMenu:\n1) Create Database.\n2) Display.\n3) Add record.\n4) Search Record.\n5)Delete Record.\n6) Exit.";

cout<<"\n\nEnter Your Choice: ";

cin>>choice;

switch(choice)

{

case 1:

cout<<"\n";

create();

break;

case 2:

cout<<"\n";

cout<<"\nRoll Number Name Division Address";

display();

break;

case 3:

cout<<"\n";

add\_record();

break;

case 4:

cout<<"\n";

search();

break;

case 5:

cout<<"\n";

delete\_record();

break;

case 6:

cout<<"\n";

cout<<"You Have Successfully Exitted...";

break;

}

}

while(choice!=5);

return 0;

}