Date : 23/11/2023

PROGRAM-28

Aim: Write a program to read the class object of student info such as name, age, sex, height and weight from the keyboard and to store them on a specified file using read() and write() functions. Again, the same file is opened for reading and displaying the contents of the file on the screen.

Code:

```
#include <iostream>
#include <fstream>
#include <cstring>
using namespace std;
class Student {
public:
   char name[50];
   int age;
   char sex;
   float height;
   float weight;
   void read() {
      cout << "Enter student name: ";
      cin.getline(name, sizeof(name));
      cout << "Enter student age: ";
      cin >> age;
      cin.ignore();
      cout << "Enter student sex (M/F): ";
      cin >> sex;
      cin.ignore();
      cout << "Enter student height (in meters): ";
      cin >> height;
      cout << "Enter student weight (in kg): ";
      cin >> weight;
   }
   void write(ofstream &ofs) {
      ofs.write(reinterpret_cast<char *>(this), sizeof(Student));
   }
   void read(ifstream &ifs) {
      ifs.read(reinterpret_cast<char *>(this), sizeof(Student));
   }
   void display() {
      cout << "Student Name: " << name << endl;
```

```
        cout << "Age: " << age << endl;
        cout << "Sex: " << sex << endl;
        cout << "Height: " << height << " meters" << endl;
        cout << "Weight: " << weight << " kg" << endl;
        cout << "-------------------------" << endl;
    }
};
int main() {
    string fileName = "student_info.dat";
    ofstream outputFile(fileName, ios::binary);
    if (!outputFile.is_open()) {
        cerr << "Error opening the file for writing." << endl;
        return 1;
    }
    Student student;
    student.read();
    student.write(outputFile);
    outputFile.close();

    ifstream inputFile(fileName, ios::binary);

    if (!inputFile.is_open()) {

        cerr << "Error opening the file for reading." << endl;

        return 1;

    }

    Student studentFromFile;

    studentFromFile.read(inputFile);

    studentFromFile.display();

    inputFile.close();

    return 0;

}
```