Practical-8.(e)

Aim: Write a C++ program to perform read/write binary I/O operation on a file(i.e. write the object of a structure/class to file).

Algorithm:(i)Start

(ii)ostream& write(const char*, int);

(iii)ifstream& write(const char*, int);

(iv)Print the result

(v)Stop

Theory: In this practical,we will perform read/write binary I/O operation on a file

Program:

```
#include<iostream>
#include<fstream>
using namespace std;
struct Student {
  int roll_no;
  string name;
};
int main() {
```

```
 std::cout<<"08_Rabin Nadar"<<std::endl;
ofstream wf("student.dat", ios::out | ios::binary);
if(!wf) {
   cout << "Cannot open file!" << endl;
   return 1;
}
Student wstu[3];
wstu[0].roll_no = 1;
wstu[0].name = "Ram";
wstu[1].roll_no = 2;
wstu[1].name = "Shyam";
wstu[2].roll_no = 3;
wstu[2].name = "Madhu";
for(int i = 0; i < 3; i++)
   wf.write((char *) &wstu[i], sizeof(Student));
wf.close();
if(!wf.good()) {
   cout << "Error occurred at writing time!" << endl;
   return 1;
```

```
}
ifstream rf("student.dat", ios::out | ios::binary);
if(!rf) {
   cout << "Cannot open file!" << endl;
   return 1;
}
Student rstu[3];
for(int i = 0; i < 3; i++)
   rf.read((char *) &rstu[i], sizeof(Student));
rf.close();
if(!rf.good()) {
   cout << "Error occurred at reading time!" << endl;
   return 1;
}
cout<<"Student's Details:"<<endl;
for(int i=0; i < 3; i++) {
   cout << "Roll No: " << wstu[i].roll_no << endl;
   cout << "Name: " << wstu[i].name << endl;
   cout << endl;
```

```
  }
  return 0;
}
```

Output:

```
08_Rabin Nadar
Student's Details:
Roll No: 1
Name: Ram

Roll No: 2
Name: Shyam

Roll No: 3
Name: Madhu
Segmentation fault (core dumped)
```

Conclusion:

We have successfully written the code and executed it.