Practical-13

Q. Program to create a student class and take details of five students and save them in a text file .

Code:-

```cpp
//Harsh Bamotra
//Program to write the details of student in a text file

#include <iostream>
#include <fstream>
using namespace std;

class student                               //Defining class student
  {
    private:                                //defining private members
    string roll_no , name , Class;
    int year , t_marks;

    public:                    //defining public members
    void getdata()             //defining function to input data from user
      {
        cout << "Enter your name ::";
        getline(cin , name);
        fflush;
        cout << "Enter your roll no ::";
        cin >> roll_no;
        cout << "Enter your class ::";
        cin >> Class;
        cout << "Enter the year ::";
        cin >> year;
        cout << "Enter your Total marks ::";
        cin >> t_marks;
        cin.ignore();

      }

    void write()                                  //defining function to write in the text file
      {                                           //defining output stream cursor to write in the text file
        ofstream out("sample.txt" , ios::app);
        out << "***** Details of the student *****\n";
        out << "Name ::" << name << "\n" ;
        out << "Roll No. ::" << roll_no << "\n" ;
        out << "Class ::" << Class << "\n" ;
        out << "Year ::" << year << "\n" ;
        out << "Total marks ::" << t_marks << "\n";
        out << "*******************************\n\n";
      }
```

```cpp
    void display()                                      //defining function to display inputted data
      {
         cout << "Roll No. ::" << roll_no << endl;
         cout << "Name ::" << name << endl;
         cout << "Class ::" << Class << endl;
         cout << "Year ::" << year << endl;
         cout << "Total marks ::" << t_marks;
      }

   };

int main()
   {
        student arr[5];                                 //defining class student object

        for(int i=0 ; i<5 ; i++)                        //loop to enter data of 5 students
            {
                    cout << "***** Enter the details of the student " << i+1 << " *****" << endl;
                    arr[i].getdata();
                    cout << endl;                       //taking input from the user
            }

         for(int i=0 ; i<5 ; i++)                       //loop to print and write data of 5 students
            {
                    cout << "***** Details of the student "  << i+1 << " *****" << endl;
                    arr[i].display();                           //printing the data to the user
                    arr[i].write();                             //writing data in the text file
                    cout << endl;
                    cout << "**** Saved this data successfully ****" << endl << endl;
            }
        return 0;

   }
```

Output:-

1. Giving input to the program

Command Prompt

```
C:\Users\harsh\Desktop>Practical-13.exe
***** Enter the details of the student 1 *****
Enter your name ::Sam
Enter your roll no ::1
Enter your class ::12
Enter the year ::2021
Enter your Total marks ::87

***** Enter the details of the student 2 *****
Enter your name ::Ram lal
Enter your roll no ::2
Enter your class ::12
Enter the year ::2021
Enter your Total marks ::89

***** Enter the details of the student 3 *****
Enter your name ::Sham lal
Enter your roll no ::3
Enter your class ::12
Enter the year ::2021
Enter your Total marks ::76

***** Enter the details of the student 4 *****
Enter your name ::Harsh Bamotra
Enter your roll no ::4
Enter your class ::12
Enter the year ::2021
Enter your Total marks ::100

***** Enter the details of the student 5 *****
Enter your name ::Ipshita Mahajan
Enter your roll no ::5
Enter your class ::12
Enter the year ::2021
Enter your Total marks ::100
```

2. Showing the data to the user

```
***** Details of the student 1 *****
Roll No. ::1
Name ::Sam
Class ::12
Year ::2021
Total marks ::87
**** Saved this data successfully ****

***** Details of the student 2 *****
Roll No. ::2
Name ::Ram lal
Class ::12
Year ::2021
Total marks ::89
**** Saved this data successfully ****

***** Details of the student 3 *****
Roll No. ::3
Name ::Sham lal
Class ::12
Year ::2021
Total marks ::76
**** Saved this data successfully ****

***** Details of the student 4 *****
Roll No. ::4
Name ::Harsh Bamotra
Class ::12
Year ::2021
Total marks ::100
**** Saved this data successfully ****

***** Details of the student 5 *****
Roll No. ::5
Name ::Ipshita Mahajan
Class ::12
Year ::2021
Total marks ::100
**** Saved this data successfully ****
```

3. Data saved in the text file

📝 sample - Notepad

File   Edit   Format   View   Help

```
***** Details of the student *****
Name ::Sam
Roll No. ::1
Class ::12
Year ::2021
Total marks ::87
**********************************

***** Details of the student *****
Name ::Ram lal
Roll No. ::2
Class ::12
Year ::2021
Total marks ::89
**********************************

***** Details of the student *****
Name ::Sham lal
Roll No. ::3
Class ::12
Year ::2021
Total marks ::76
**********************************

***** Details of the student *****
Name ::Harsh Bamotra
Roll No. ::4
Class ::12
Year ::2021
Total marks ::100
**********************************

***** Details of the student *****
Name ::Ipshita Mahajan
Roll No. ::5
Class ::12
Year ::2021
Total marks ::100
**********************************
```