NAME :   *HASNAT AHMAD.*

CLASS :   *BSE(2A).*

ROLL NO :   *20P-0079.*

SUBJECT :   *OPP LAB.*

ASSIGNMENT 8.

QUESTION 1.

```cpp
#include<iostream>

#include<string>

#include<string.h>

using namespace std;

class Student{                        //Class Student

    private:                          //Data Members

    int admno;

    char sname[20];

    float eng,math,science,total;

    float ctotal(){                   //Member function calculating total

        total=eng+math+science;
```

```cpp
        return total;
    }
    public:
    void Takedata(){                    //Memberfunction taking values from user and
assigning value to data members
        cout<<"Enter Student Name : "<<endl;
        cin.getline(sname,20);
        cout<<"Enter Admission No : "<<endl;
        cin>>admno;
        cout<<"Enter English,Maths,Science marks : "<<endl;
        cin>>eng;
        cin>>math;
        cin>>science;
        ctotal();               //calling ctotal function

    }
    void Showdata(){                    //Member function to show data on screen
        cout<<"YOur Admission No : "<<admno<<endl;
        cout<<"Student Name : "<<sname<<endl;
        cout<<"English MArks : "<<eng<< " , Maths MArks : "<<math<<" , Science
Marks : "<<science<<endl;
        cout<<"Total : "<<total<<endl;
    }
};
int main(){
```

```cpp
    Student s1;              //creating object of class Student

    s1.Takedata();            //fumction is called for object initialization

    s1.Showdata();


}
```

```
Enter Student Name :
Hasnat Ahmad
Enter Admission No :
14
Enter English,Maths,Science marks :
70
70
60
YOur Admission No : 14
Student Name : Hasnat Ahmad
English MArks : 70 , Maths MArks : 70 , Science Marks : 60
Total : 200
```

QUESTION 2.

```cpp
#include<iostream>

#include<string>

#include<string.h>

using namespace std;

class Batsman{                      //Class Batsmen
```

```cpp
    private:
    int bcode;                          //Data Members
    char bname[20];
    int innings,notout,runs;
    float batavg;
    float cavg(){
        batavg=runs/(innings-notout);        //Member function calculating batsmen average
        return batavg;
    }
    public:
    void readdata(){                    //Memberfunction taking values from user and assigning to data members
        cout<<"Enter Batsman Name : "<<endl;
        cin.getline(bname,20);
        cout<<"Enter Batsman Code : "<<endl;
        cin>>bcode;
        cout<<"Enter Innings, Notout , Runs : "<<endl;
        cin>>innings;
        cin>>notout;
        cin>>runs;
        cavg();                         //calling cavg function

    }
    void displaydata(){                 //Member function to show data on screen
```

```cpp
        cout<<"YOur Batsman Code : "<<bcode<<endl;

        cout<<"Batsman Name : "<<bname<<endl;

        cout<<"Innings : "<<innings<< " , Notout : "<<notout<<" , Runs :
"<<runs<<endl;

        cout<<"Batsman Average : "<<batavg;

    }

};

int main(){

    Batsman b1;                     //creating object b1 of class Batsmen

    b1.readdata();                  //fumction is called for object initialization

    b1.displaydata();


}
```

```
Enter Batsman Name :
Hasnat Ahmad
Enter Batsman Code :
33
Enter Innings, Notout , Runs :
6
1
1000
YOur Batsman Code : 33
Batsman Name : Hasnat Ahmad
Innings : 6 , Notout : 1 , Runs : 1000
Batsman Average : 200(base) spy007@spy007:~
```