

Lab 1

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Branch: CSE

Question1:

Code:

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

class beta;
class alpha
{
    int num1;
public:
    void a_setvalue(){
        cout << " Enter a number : ";
        cin >> num1;
    }
    friend void add(alpha, beta);
};

class beta
{
    int num2;
public:
    void b_setvalue(){
        cout << "Enter another number : ";
        cin >> num2;
    }
    friend void add(alpha, beta);
};

void add(alpha a, beta b){
    cout << "The sum of numbers is : " << a.num1 + b.num2;
}

int main(){
    alpha a; beta b;
    a.a_setvalue();
    b.b_setvalue();
    add(a,b);
    return 0;
}
```

Input & Output:

```
PS C:\Users\DELL\OneDrive\Desktop\Labs\OOPM LAB\LAB 2> cd "c:\Users\DELL\OneDrive\Desktop\Labs\OOPM LAB\LAB 2\" ; if ($?) { g++ 1.cpp -o 1 } ; if ($?) { .\1 }
Enter a number : 5
Enter another number : 10
The sum of numbers is : 15
PS C:\Users\DELL\OneDrive\Desktop\Labs\OOPM LAB\LAB 2> █
```

Question2:

Code:

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

class Sam
{
    int a,b;
    void add(){
        cout << "Sum of Two numbers : " << a+b;
    }
public:
    void getdata(){
        cout << "Enter two numbers : ";
        cin >> a; cin >> b;
    }
    friend class Tom;
};

class Tom
{
public:
    void access(Sam x){
        x.add();
    }
};

void add(){

}

int main(){
    Sam s; Tom t;
    s.getdata();
    t.access(s);
    return 0;
}
```

Input & Output:

```
PS C:\Users\DELL\OneDrive\Desktop\Labs\OOPM LAB\LAB 2> cd "c:\Users\DELL\OneDrive\Desktop\Labs\OOPM LAB\LAB 2\" ; if ($?) { g++ 2.cpp -o 2 } ; if ($?) { .\2 }
Enter two numbers : 25 24
Sum of Two numbers : 49
PS C:\Users\DELL\OneDrive\Desktop\Labs\OOPM LAB\LAB 2> □
```

Question3:

Code:

```
#include<iostream>

#include<cstring>

using namespace std;

class Student
{
    string Name;

    int Rollno;

    char Section;

public:
    void add(Student s){

        cout << "Enter Name : " ;cin >> Name;

        cout << "Enter Roll.No.: " ;cin >> Rollno;

        cout << "Enter Section : " ;cin >> Section;

    }

    void show(Student s){

        cout << "\n-----\n";

        cout << "***Details of Student***" << endl;

        cout << "Name : " << Name << endl;

        cout << "Roll No.: " << Rollno << endl;

        cout << "Section : " << Section << endl;

        cout << "\n-----\n";

    }

};

int main(){

    Student z,s1;

    z.add(s1);

    z.show(s1);

    return 0;

}
```

Input & Output:

```
PS C:\Users\DELL\OneDrive\Desktop\Labs\OOPM LAB\LAB 2> cd "c:\Users\DELL\OneDrive\Desktop\Labs\OOPM LAB\LAB 2\" ; if ($?) { g++ 3.cpp -o 3 } ; if ($?) { .\3 }
Enter Name : Manoj
Enter Roll.No.: 5
Enter Section : C

-----
***Details of Student***
Name : Manoj
Roll No.: 5
Section : C
-----
PS C:\Users\DELL\OneDrive\Desktop\Labs\OOPM LAB\LAB 2> █
```

Question4:

Code:

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

class Student
{
    public:
    string Name;
    int Rollno;
    float marks;
};

class Marksheet
{
    public:
    Student obj[5];
    void addSMark(){
        for(int i = 0; i < 5; i++){
            cout << "Enter Name: ";
            cin >> obj[i].Name;
            cout << "Enter Roll.No.: ";
            cin >> obj[i].Rollno;
            cout << "Enter marks : ";
            cin >> obj[i].marks;
        }
    }
    void showMark(int r){
        for(int i = 0; i < 5; i++){
            if(obj[i].Rollno == r){
                cout << "\n-----\n";
                cout << "***Details of Student***" << endl;
                cout << "Name : " << obj[i].Name << endl;
                cout << "Roll No.: " << obj[i].Rollno << endl;
                cout << "Section : " << obj[i].marks << endl;
                cout << "-----";
            }
        }
    }
};

int main(){
    Marksheet m1;
    m1.addSMark();
    m1.showMark(5);
    return 0;
}
```

Input & Output:

```

PS C:\Users\DELL\OneDrive\Desktop\Labs\OOPM LAB\LAB 2> cd "c:\Users\DELL\OneDrive\Desktop\Labs\OOPM LAB\LAB 2\" ; if ($?) { g++ 4.cpp -o 4 } ; if ($?) { .\4 }
Enter Name: Tony
Enter Roll.No.: 1
Enter marks : 99
Enter Name: Bruce
Enter Roll.No.: 2
Enter marks : 90
Enter Name: Steve
Enter Roll.No.: 3
Enter marks : 85
Enter Name: Clint
Enter Roll.No.: 4
Enter marks : 80
Enter Name: Scott
Enter Roll.No.: 5
Enter marks : 75

-----
***Details of Student***
Name : Scott
Roll No.: 5
Section : 75
-----
PS C:\Users\DELL\OneDrive\Desktop\Labs\OOPM LAB\LAB 2> 

```

Question5:

Code:

```

#include<iostream>
using namespace std;

class Complex
{
    int a, b;
public:
    void getvalue(int x, int y){
        a = x;
        b = y;
    }
    void printvalue(){
        cout << "Complex Number is : " << a << "+" << b <<"i" << endl;
    }
    friend Complex csum(Complex c1, Complex c2);
};

Complex csum(Complex c1, Complex c2){
    Complex c3;
    c3.getvalue((c1.a + c2.a),(c1.b + c2.b));
    return c3;
}

int main(){
    Complex C1, C2, sum;
    C1.getvalue(2,8);
    C2.getvalue(5,7);
    sum = csum(C1, C2);
    sum.printvalue();
    return 0;
}

```

Input & Output:

```

PS C:\Users\DELL\OneDrive\Desktop\Labs> cd "c:\Users\DELL\OneDrive\Desktop\Labs\OOPM LAB\LAB 2\" ; if ($?) { g++ 5.cpp -o 5 } ; if ($?) { .\5 }
Complex Number is : 7+15i
PS C:\Users\DELL\OneDrive\Desktop\Labs\OOPM LAB\LAB 2> 

```