

# TRINITY INTERNATIONAL COLLEGE

**Dillibazar Height, Kathmandu**

(Tribhuvan University Affiliated)



## **Lab 4**

**(Subject : Object Oriented Programming)**

**Submitted By:**

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## Assignment 4

- i Write a program defining a class named **toCovert** with one data member. Use necessary member functions for input and output which converts Celsius into Fahrenheit. Write a main() program to exercise this class.
- ii Write a program defining a class named **Account** with three data members for account no, name and balance. Define the user needed functions for input and output to display 'N' account holders. Write a program to exercise this class.
- iii Write a program defining a class named **information** with three data members roll, name and address. Define a user needed functions for input and output of 'N' students. Solve defining a function in class inside and outside.
- iv Write a program defining class having two data members. Define a user needed function for input, comparison and also use nested member function to display the greater among two numbers. Use the member function outside the class definition. Write a main() to exercise this function.
- v Define two private data members feet and inch. Use necessary function for input/output. Define another function **Sum** which finds the sum of two distances passing object. Write a main() program to exercise this class.

#### LAB 4

```
Q1) #include <iostream>
using namespace std;
class toConvert {
private:
    int n;
    float y;
public:
    void getdata(int c) {
        n=c;
    }
    void convert() {
        f=(n*9/5)+32;
    }
    void display() {
        cout<<"temp in fahrenheit"<<f;
    }
};

main() {
    toConvert temp;
    int c;
    cout<<"enter temp in Celsius:";
    cin>>c;
    temp.getdata(c);
    temp.convert();
    temp.display();
}
```

#### Output

```
enter temp in celsius - 40
temp in fahrenheit = - 40
```

```

Q2) #include <iostream>
#include <iomanip>
using namespace std;
class Account{
private:
    int accNo, balance;
    char name[20];
public:
    void getData() {
        cout << "enter acc no ";
        cin >> accNo;
        cout << "enter balance ";
        cin >> balance;
        cout << "enter name ";
        cin >> name; }
    void display() {
        cout << setw(10) << accNo << setw(10) << balance <<
        setw(10) << name << endl; }
    main() {
        Account acc[10];
        int n;
        cout << "enter no of users ";
        cin >> n;
        for (int i=0; i<n; i++) {
            acc[i].getData(); }
        cout << setw(10) << "AccNo" << setw(10) << "Balance" << setw(10) << "Name" << endl;
        for (int i=0; i<n; i++) {
            acc[i].display(); } }

```

Output.

enter no of users: 1  
 enter acc no 54  
 enter balance: 40000  
 enter name: ram

AccNo	Balance	Name
54	40000	ram

```

Q3) #include <iostream>
#include <roman.h>
using namespace std;
class information {
private:
    int roll;
    char name[20], add[20];
public:
    void getData() {
        cout << "enter name:";
        cin >> name;
        cout << "enter roll no";
        cin >> roll;
        cout << "enter address";
        cin >> add; }
    void display(); }
void information::display() {
    cout << setw(15) << name << setw(15) << roll << setw(15) << add;
}
main() {
    information acc[10];
    int n;
    cout << "enter no of stu";
    cin >> n;
    for (int i=0; i<n; i++) {
        acc[i].getData(); }
    for (int i=0; i<n; i++) {
        acc[i].display(); } }

```

Output

```

enter no of stu 1
enter name ram
enter roll no 2
enter address KTM
ram      2      KTM.

```

```

Q4) #include <iostream>
#include <iomanip>
using namespace std;
class Data {
private:
    int n, y, g;
public:
    void getData();
    void greater();
    void display();
};

void Data::getData() {
    cout << "enter two nos";
    cin >> n >> y;
    greater();
}

void Data::greater() {
    n > y ? g = n : g = y;
    display();
}

void Data::display() {
    cout << "greater" << g;
}

int main() {
    Data dat;
    dat.getData();
}

```

Output

enter two nos 5

7

greater 7



```

Q5) #include <iostream>
#include <iomanip>
using namespace std;
class Data {
private:
    int feet, inch;
public:
    int L;
    void getData() {
        cout << "enter feet & inch: ";
        cin >> feet >> inch;
        L = feet * 12 + inch;
    }
    void len(Data, Data);
};

void Data::len(Data datA, Data datB) {
    int f, i;
    f = (datA.L + datB.L) / 12;
    i = (datA.L + datB.L) % 12;
    cout << "length" << f << " ' " << i << " \"";
}

main() {
    Data dat1, dat2, L;
    dat1.getData();
    dat2.getData();
    L.len(dat1, dat2);
}

```

Output

enter feet & inch: 5

14

enter feet & inch: 1

8

Length : 7' 10"