**VARUN KUMAR**

**2K19 /IT/ 140**

**OOP LAB – 8**

#include <iostream>

#include <stdio.h>

using namespace std;

class Colony;

class Sector;

class containment

{

private:

int Capital;

int start;

int end;

int num;

public:

void cal(Sector z);

};

class Sector{

private:

int num;

string name;

int cnt;

string status;

public:

void get()

{

cout<<"Enter Sector number: ";

cin>>num;

cout<<"Enter Sector name: ";

cin>>name;

cout<<"Number of registered cases : ";

cin>>cnt;

}

void allocate(){

if(cnt > 100){

status = "red";

}else if(cnt > 50){

status = "orange";

}else{

status = "green";

}

}

friend void check(Sector z, Colony s);

friend void containment::cal(Sector z);

};

void containment::cal(Sector z){

Capital = z.cnt\*15000;

}

class Colony{

private:

string name;

int id;

string zs;

int tot;

int aff;

public:

void get(){

cout<<"Enter Colony name: ";

cin>>name;

cout<<"Enter Colony ID: ";

cin>>id;

cout<<"Enter Sector of Colony: ";

cin>>zs;

cout<<"Enter Total number of flats: ";

cin>>tot;

cout<<"Enter number of flats affected: ";

cin>>aff;

}

friend void check(Sector z, Colony s);

friend class containment;

};

void check(Sector z, Colony s){

if(s.tot < z.cnt/8){

cout<<"Colony is safe\n";

}else{

cout<<"Colony is unsafe\n";

}

}

int main(){

Sector a;

a.get();

a.allocate();

cout<<"\n";

Colony s;

s.get();

cout<<"\n";

check(a,s);

cout<<"\n";

containment c;

c.cal(a);

return 0;

}

