//assignment 7

#include <iostream>  
using namespace std;  
  
template<class T>  
class vector{  
    T v[20];  
    int n;  
    public:  
    void create();  
    void modify();  
    void mult();  
    void display();  
};;  
  
template<class T>  
void vector<T>::create(){  
    cout<<"Enter no of elements you want to insert"<<endl;  
    cin>>n;  
    cout<<"Enter the vector elements: ";  
    for(int i=0;i<n;i++){  
      cin>>v[i];  
    }  
}  
  
template<class T>  
void vector<T>::mult()  
{  
  int i;  
  int x;  
  cout<<"\nEnter scalar value for multiplication";  
  cin>>x;  
  for(int i=0;i<n;i++)  
    v[i]=v[i]\*x;  
}  
  
template<class T>  
void vector<T>::modify(){  
    int a;  
    cout<<"Enter the element that you want to modify";  
    cin>>a;  
    int b;  
    cout<<"Enter the modified element :";  
    cin>>b;  
    for(int i=0;i<n;i++){  
        if(v[i]==a)  
        v[i]=b;  
    }  
}  
  
template<class T>  
void vector<T>::display(){  
   cout<<"\nElements in vector are:";  
   cout<<"( ";  
   for(int i=0;i<n;i++){  
     cout<<v[i]<<" ";  
   }  
   cout<<" )";  
}  
  
int main()  
{  
   int ch;  
   vector<int> obj;  
do  
{  
  cout<<"1.Create"<<endl;  
  cout<<"2.Display"<<endl;  
  cout<<"3.Mult"<<endl;  
  cout<<"4.Modify"<<endl;  
  cout<<"5.Exit"<<endl;  
  cout<<"Enter your choice:";  
   cin>>ch;  
switch(ch)  
{  
 case 1:  
  obj.create();  
  break;  
 case 2:  
  obj.display();  
  break;  
 case 3:  
  obj.mult();  
  break;  
 case 4:  
  obj.modify();  
  break;  
 case 5:  
  cout<<"\n exit";  
  break;  
 }  
}while(ch!=0);  
  return 0;  
}

//assignment 7 output

1.Create

2.Display

3.Mult

4.Modify

5.Exit

Enter your choice:1

Enter no of elements you want to insert

3

Enter the vector elements: 1

2

3

1.Create

2.Display

3.Mult

4.Modify

5.Exit

Enter your choice:3

Enter scalar value for multiplication2

1.Create

2.Display

3.Mult

4.Modify

5.Exit

Enter your choice:4

Enter the element that you want to modify2

Enter the modified element :1

1.Create

2.Display

3.Mult

4.Modify

5.Exit

Enter your choice:2

Elements in vector are:( 1 4 6 )1.Create

2.Display

3.Mult

4.Modify

5.Exit

Enter your choice:5

exit