Create a class called Musicians to contain three methods string ( ), wind ( ) and perc ( ). Each of these methods should initialize a string array to contain the following instruments

- **veena, guitar, sitar, sarod and mandolin under string ( )**
- **flute, clarinet saxophone, nadhaswaram and piccolo under wind ( )**
- **tabla, mridangam, bangos, drums and tambour under perc ( )**

It should also display the contents of the arrays that are initialized. Create a derived class called TypeIns to contain a method called get ( ) and show ( ). The get ( ) method must display a menu as follows

Type of instruments to be displayed
a. String instruments

b. Wind instruments
c. Percussion instruments

The show ( ) method should display the relevant detail according to our choice. The base class variables must be accessible only to its derived classes.

```
#include <iostream>
#include <cstring>
#define SUCCESS 0
class Musicians
{
 protected:
  std::string str[5];
  std::string wnd[5];
  std::string per[5];
 public:
  void string()
  {
    str[0] ="vern";
    str[1]="guitar";
    str[2]="sitar";
    str[3]="sarod";
    str[4]="mandolin";
    std::cout<< "string instrument has been initialized to" << std::endl;
    for(int i = 0 ; i < 5; i++)
```

```
  {
    std::cout << str[i] << std::endl;
  }
 }
 void wind(){

  wnd[0]="flute";
  wnd[1]="mridangam";
  wnd[2]="bangos";
  wnd[3]="drums";
  wnd[4]="tambour";
  std::cout<< "wind instrument has been initialized to" << std::endl;
  for(int i = 0 ; i < 5; i++)
  {
    std::cout << wnd[i] << std::endl;
  }
 }
 void perc()
 {
  per[0]="tabla";
  per[1]="mridangam";
  per[2]="bangos";
  per[3]="drums";
  per[4]="tambour";
  std::cout<< "percussion instrument has been initialized to" << std::endl;
  for(int i = 0 ; i < 5; i++)
  {
    std::cout << per[i] << std::endl;
  }
 }
};
class TypeIns:public Musicians
{
 public:
  std::string* get()
  {
   std::cout<<"Type of instrument to be displayed" << std::endl;
   std::cout << "a. String instruments" << std::endl;
   std::cout << "b. Wind instruments" << std::endl;
   std::cout << "c. Percussion instruments" << std::endl;
```

```
   char choice;
   std::cin >> choice;
   show(choice);
  }
  void show(char choice)
  {
   if(choice == 'a')
   {
    for(int i = 0 ; i < 5; i++)
    {
     std::cout << str[i] << std::endl;
    }
   }
   else if(choice == 'b')
   {
    for(int i = 0 ; i < 5; i++)
    {
     std::cout << wnd[i] << std::endl;
    }
   }
   else
   {
    for(int i = 0 ; i < 5; i++)
    {
     std::cout << per[i] << std::endl;
    }
   }
  }
};
int main()
{
  TypeIns t;
  t.string();
  t.perc();
  t.wind();
  t.get();
  return SUCCESS;
}

#include<iostream>//or
```

```
#include<vector>
using namespace std;
class Musicians
{
protected:
   vector<string> str,win,per;
public:
   void String ()
   {
      str={"veena","guitar","sitar","sarod","mandolin"};
      cout<<"\nstring instruments:"<<endl;
      for (int i=0;i<5;i++)
      {
         cout<<str[i]<<endl;
      }
      cout<<"\n*************************************************\n";
   }
   void Wind()
   {
      win={"flute","clarinet","saxophone","nadhaswaram","piccolo"};
      cout<<"\nwind instruments:"<<endl;
      for (int i=0;i<5;i++)
      {
         cout<<win[i]<<endl;
      }
      cout<<"\n*************************************************\n";
   }
   void Perc ()
   {
      per={"tabla","mridangam","bangos","drums","tambour"};
      cout<<"\npercussion instruments:"<<endl;
      for (int i=0;i<5;i++)
      {
         cout<<per[i]<<endl;
      }
      cout<<"\n*************************************************\n";
   }
};
class TypeIns:public Musicians
{
```

```
   char c;
public:
   void get()
   {
      cout<<"Type of instruments to be displayed:"<<endl;
      cout<<"a. String instruments"<<endl;
      cout<<"b. Wind instruments"<<endl;
      cout<<"c. Percussion instruments"<<endl;
      cout<<"Enter your selection(a/b/c):";
      cin>>c;
   }
   void show()
   {
      switch(c)
      {
      case 'a':
         String();
         break;
      case 'b':
         Wind();
         break;
      case 'c':
         Perc();
         break;
      }
   }
};
int main()
{
   Musicians m1;
   TypeIns t1;
   m1.String();
   m1.Wind();
   m1.Perc();
   t1.get();
   t1.show();
}
```