

```
/* Name :Taware Ruturaj
Sub : fds
Roll no = 2221034
Assigment no. 5
```

Problem statement= a) Write a C++ program to store roll numbers of student in array who attended training program in random order.

Write function for searching whether particular student attended training program or not, using Linear search .

b) Write a C++ program to store roll numbers of student array who attended training program in sorted order. Write function for searching whether particular student attended training program or not, using Binary search and Fibonacci search.

```
*/
```

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

```
class Myclass
{
int a[50],n,key; public:
```

```
void input();
void l_search();
void B_search();
```

```
};
```

```
void Myclass::input()
{
int i;
cout<<"enter a no of student Attending program :- ";
cin>>n;
cout<<"enter roll no of student Attending program="<<endl;
for(i=0;i<n;i++)
{
cin>>a[i];

}
}
```

```

}
void Myclass::l_search()
{
int i;
cout<<"enter a roll number to search :- ";
cin>>key;

for(i=0; i<n; i++)
{
if(key==a[i])
{

cout<<"roll number is Attending Training program"<<endl;
break;
}
}
if(i==n)
{
cout<<"roll number not Attend Training program "<<endl;

}

}
}

```

```

void Myclass::B_search()
{
int l=0,h=n-1,m;
int i;
cout<<"enter a roll number which have to search :- "; cin>>key;

do
{
m=(l+h)/2;
if( key==a[m])
{
cout<<"roll number is Attending Training program"<<endl;
break;

}
else if(key>a[m] )

```

```
{  
l=m+1;
```

```
}
```

```
else
```

```
{  
h=m-1;  
}
```

```
}
```

```
while(l<=h);
```

```
if(l>h)  
{
```

```
cout<<" roll number is not Attend Training program !"<<endl;  
}
```

```
}
```

```
int main()
```

```
{  
Myclass ob; int ch; while(1)
```

```
{  
cout<<"1 linear search"<<endl;
```

```
cout<<"2 binary search"<<endl; cout<<"enter your choice :- "; cin>>ch;  
switch(ch)
```

```
{  
case 1 : ob.input();  
ob.l_search(); break;
```

```
case 2 : ob.input();
```

```
ob.B_search(); break;
```

```
}
```

```
}
```

```
return 0;
```