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Assignment: PF Lab 10

Sec: H
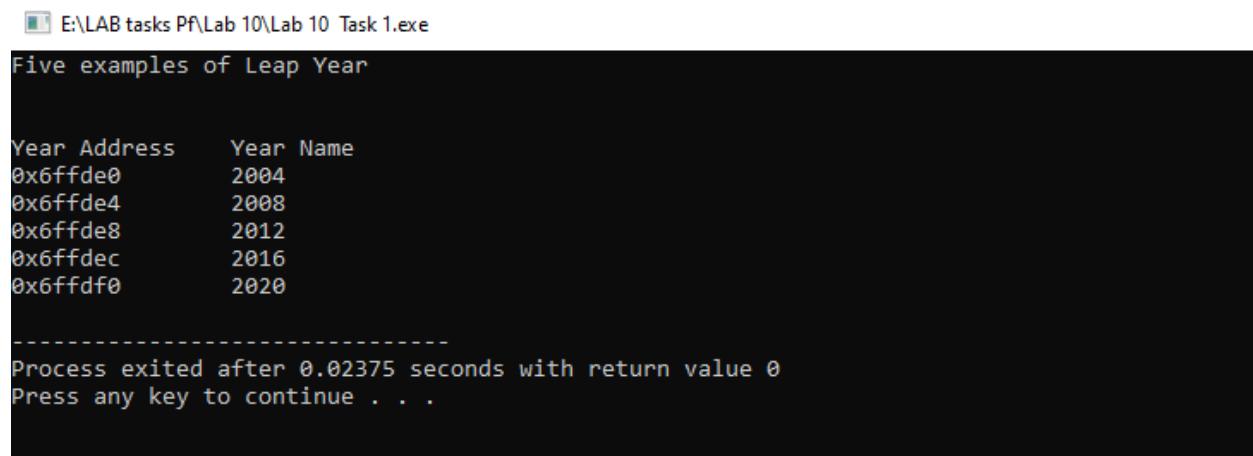
Task 1.

Input

```cpp
#include <iostream>
using namespace std;
int main ()
{
    cout<<"Five examples of Leap Year \n\n";
    int year[5]={2004,2008,2012,2016,2020};
    int*ptr;

    ptr= year;
    cout<<"\nYear Address\tYear Name\n";
    for(int i=0; i<5; i++)
    {
        cout<<ptr+i<<"\t"<<*(ptr+i)<<endl;
    }
return 0;
}
```

OUTPUT


```
E:\LAB tasks Pf\Lab 10\Lab 10  Task 1.exe

Five examples of Leap Year


Year Address    Year Name
0x6ffde0        2004
0x6ffde4        2008
0x6ffde8        2012
0x6ffdec        2016
0x6ffdf0        2020


--------------------------------
Process exited after 0.02375 seconds with return value 0
Press any key to continue . . .
```

TASK 2.

Input

```cpp
#include <iostream>
using namespace std;
int main ()
{
    string team[5];
    string*ptr;

    ptr= team;
    cout<<"\nEnter five Cricket Teams of the world \n";
    for(int i=0; i<5; i++)
    {
        cout<<"Team "<<i+1<<" :   ";
        cin>>*(ptr+i);
    }

cout<<endl;
    for(int i=0; i<5; i++)
    {
        cout<<"Team "<<i+1<<"  --> ";
        cout<<*(ptr+i)<<endl;
    }
return 0;
}
```

OUTPUT

```
Enter five Cricket Teams of the world
Team 1 :  Pakistan
Team 2 :  India
Team 3 :  Srilanka
Team 4 :  Australia
Team 5 :  England

Team 1  --> Pakistan
Team 2  --> India
Team 3  --> Srilanka
Team 4  --> Australia
Team 5  --> England


--------------------------------
Process exited after 39.35 seconds with return value 0
Press any key to continue . . .
```

TASK 3.
INPUT

```cpp
#include <iostream>
using namespace std;
int main ()
{
    int num1, num2;
    int*ptr1;
    int *ptr2;

    ptr1=&num1;
    ptr2=&num2;

    cout<<"\nEnter Number 1 : ";
    cin>>*(ptr1);

    cout<<"\nEnter Number 2 : ";
    cin>>*(ptr2);

    if(*(ptr1)==*(ptr2))
    cout<<"\nThese are equal numbers \n\n";
    else
    cout<<endl<<*(ptr1)<<" and "<<*(ptr2)<<" are not equal ";
return 0;
}
```

OUTPUT

```
Enter Number 1 : 23

Enter Number 2 : 41

23 and 41 are not equal
--------------------------------
Process exited after 6.599 seconds with return value 0
Press any key to continue . . .
```

```
Enter Number 1 : 78

Enter Number 2 : 78

These are equal numbers


--------------------------------
Process exited after 8.925 seconds with return value 0
Press any key to continue . . .
```

TASK 4. INPUT

```cpp
#include <iostream>
using namespace std;
void ReverseString(string &reverse)
{
    char*ptr;
    cout<<"\nString in REVERSE order\n";
    for(int i=reverse.length()-1;i>=0; i--)
    {
        ptr[i]=reverse[i];
        cout<<ptr[i];
    }

    delete[] ptr;
}
int main ()
{
    string str;
    cout<<"Enter a string \n";
    getline(cin, str);


    ReverseString(str);



    return 0;
}
```

OUTPUT

```
Enter a string
I am Mushtaque Ali

String in REVERSE order
ilA euqathsuM ma I
--------------------------------
Process exited after 7.645 seconds with return value 3221226356
Press any key to continue . . .
```

TASK 5.
INPUT

```cpp
#include <iostream>
using namespace std;
void BubbleSort(int ptr[20])
{
        for(int i=0; i<20; i++)
        {
                                            for(int j=0;j<20; j++)
                                            {
                                                if(ptr[j]>ptr[i])
                                                {
                                                        int
temp=ptr[j];

        ptr[j]=ptr[i];

        ptr[i]=temp;

                                                }
                                            }
        }

}



int main ()
{
        int arr[20]={3,2,1,4,3,10,5,34,23,2,444,23,45,6,6,5,4,3,44,34};
        int*ptr;
```
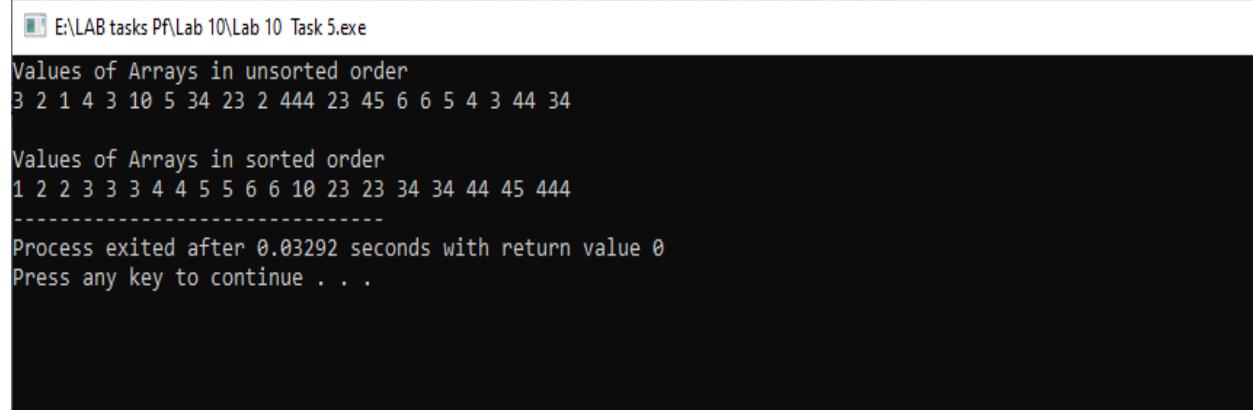
```cpp
            ptr=arr;

cout<<"Values of Arrays in unsorted order \n";

for(int i=0; i<20;i++)

{

            cout<<arr[i]<<" ";

}


            BubbleSort(arr);

            cout<<"\n\nValues of Arrays in sorted order \n";

for(int i=0; i<20;i++)

{

            cout<<arr[i]<<" ";

}


return 0;

}
```

OUTPUT

E:\LAB tasks Pf\Lab 10\Lab 10 Task 5.exe

```
Values of Arrays in unsorted order
3 2 1 4 3 10 5 34 23 2 444 23 45 6 6 5 4 3 44 34

Values of Arrays in sorted order
1 2 2 3 3 3 4 4 5 5 6 6 10 23 23 34 34 44 45 444
------------------------------
Process exited after 0.03292 seconds with return value 0
Press any key to continue . . .
```

TASK 6.
INPUT

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

int main ()
{
            int arr[10], search, index;
            bool check=false;
            int*ptr;

            ptr=arr;
cout<<"Enter 10 Values of Array \n";
for(int i=0; i<10;i++)
{
            cout<<"ptr at index "<<i<<" = ";
            cin>>*(ptr+i);
}

cout<<endl;
for(int i=0; i<10;i++)
{
            cout<<"ptr at "<<i<<" index = "<<*(ptr+i)<<endl;
}

cout<<"\nEnter a number for searching : ";
cin>>search;

for(int i=0; i<10; i++)
```
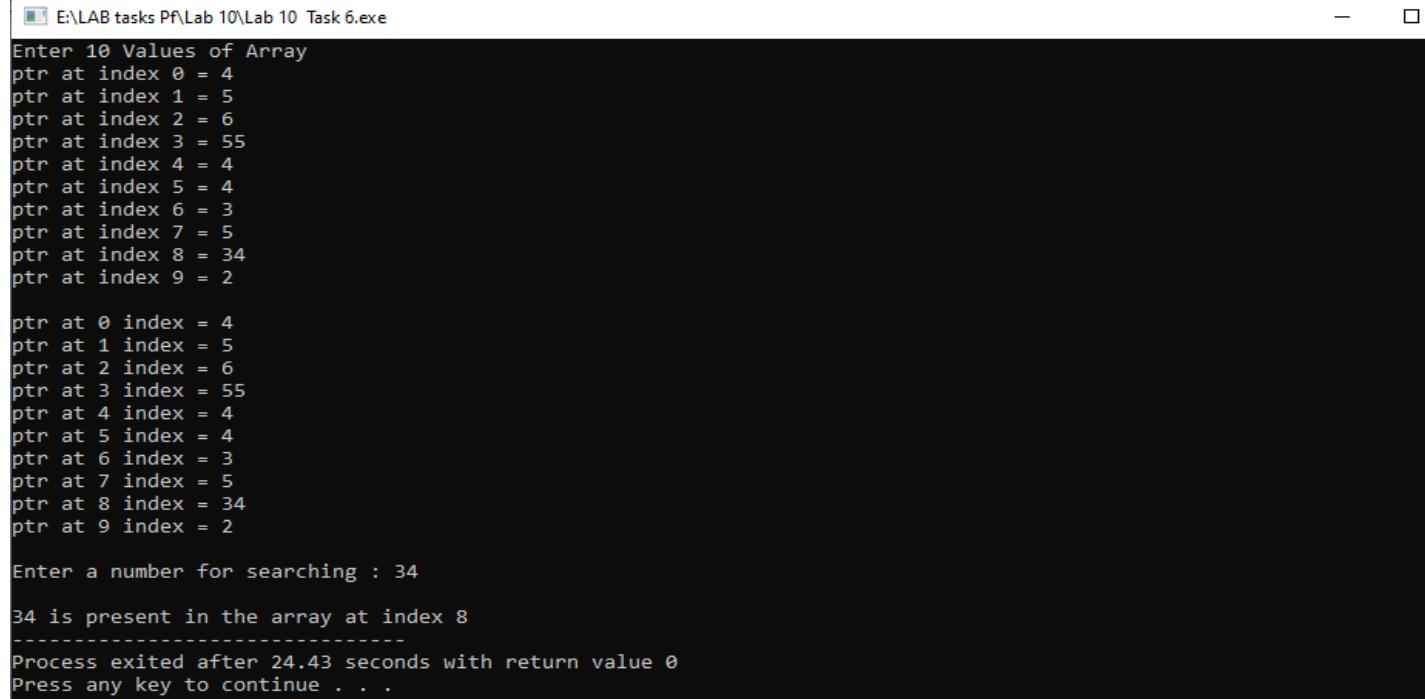
```cpp
        {
                if(search==*(ptr+i))

                {
                        check=true;

                        index=i;

                        break;

                }

        }


if(check==true)

cout<<endl<<search<<" is present in the array at index "<<index;

else

cout<<endl<<"Sorry, "<<search<<" Not found ";

return 0;

}
```

OUTPUT


```
E:\LAB tasks Pf\Lab 10\Lab 10  Task 6.exe                                        —    □

Enter 10 Values of Array
ptr at index 0 = 4
ptr at index 1 = 5
ptr at index 2 = 6
ptr at index 3 = 55
ptr at index 4 = 4
ptr at index 5 = 4
ptr at index 6 = 3
ptr at index 7 = 5
ptr at index 8 = 34
ptr at index 9 = 2

ptr at 0 index = 4
ptr at 1 index = 5
ptr at 2 index = 6
ptr at 3 index = 55
ptr at 4 index = 4
ptr at 5 index = 4
ptr at 6 index = 3
ptr at 7 index = 5
ptr at 8 index = 34
ptr at 9 index = 2

Enter a number for searching : 34

34 is present in the array at index 8
------------------------------
Process exited after 24.43 seconds with return value 0
Press any key to continue . . .
```

```
Enter 10 Values of Array
ptr at index 0 = 3
ptr at index 1 = 4
ptr at index 2 = 5
ptr at index 3 = 3
ptr at index 4 = 2
ptr at index 5 = 3
ptr at index 6 = 8
ptr at index 7 = 7
ptr at index 8 = 99
ptr at index 9 = 8

ptr at 0 index = 3
ptr at 1 index = 4
ptr at 2 index = 5
ptr at 3 index = 3
ptr at 4 index = 2
ptr at 5 index = 3
ptr at 6 index = 8
ptr at 7 index = 7
ptr at 8 index = 99
ptr at 9 index = 8

Enter a number for searching : 77

Sorry, 77 Not found
----------------------------------
Process exited after 8.494 seconds with return value 0
Press any key to continue . . .
```

Task 7. Input

```cpp
#include <iostream>
using namespace std;
void swap(int *a, int *b)
{
        *a=*a- *b;
        *b=*a+ *b;
        *a=*b- *a;
}
int main ()
{
        int a=5, b=10;
        cout<<"Before swaping: \n";
        cout<<"\ta = "<<a<<"\tb = "<<b;

        swap(&a,&b);
        cout<<"\nAfter swaping: \n";
        cout<<"\ta = "<<a<<"\tb = "<<b;
return 0;
}
```

Output

```
Before swaping:
        a = 5   b = 10
After swaping:
        a = 10  b = 5
--------------------------------
Process exited after 0.0277 seconds with return value 0
Press any key to continue . . .
```

The End