NATIONAL UNIVERSITY OF SCIENCES & TECHNOLOGY

SCHOOL OF MECHANICAL AND MANUFACTURING ENGINEERING

SEMESTER # 01

CLASS: - ME 15 [SEC A]

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Fundamentals of Programming

HOME TASK 08

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Submitted to   **MUHAMMAD AFFAN**

QUESTION NUMBER 01

```
/*_____
Take an array and find the most repeated element in that array.
HOME TASK  8 Q#01
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*/

#include<iostream>
using namespace std;
int main ()

{
        int n,count;
        cin>>n;  //no. of elements of array
        int arr[n];
        for ( int i=0;i<n;i++ ){     //inputting array

                cin>> arr[i]; }
   for ( int i=0;i<n;i++ ){
     count=0;
        for (int j=0;j<n;j++)  {
        if (arr[i]==arr[j])    {
                count++;  //incrementing 1 in count

        }

}
        cout<<"the repeated element is "<<arr[i]<<" and is repeated "<<count<< " times
"<<endl;
}
return 0;
}
```

```
7
1
1
1
1
1
2
2
the repeated element is 1 and is repeated 5 times
the repeated element is 1 and is repeated 5 times
the repeated element is 1 and is repeated 5 times
the repeated element is 1 and is repeated 5 times
the repeated element is 1 and is repeated 5 times
the repeated element is 2 and is repeated 2 times
the repeated element is 2 and is repeated 2 times

--------------------------------
Process exited after 4.416 seconds with return value 0
Press any key to continue . . .
```

```cpp
#include<iostream>
using namespace std;
int main ()

{
    int n,count;
    cin>>n;  //no. of elements of array
    int arr[n];
    for ( int i=0;i<n;i++ ){       //inputting array

        cin>> arr[i]; }
    for ( int i=0;i<n;i++ )
        count=0;
        for (int j=0;j<n;j++)   {
    if (arr[i]==arr[j])     {
        count++;   //incrementing 1 in count

    }

}
    cout<<"the repeated element is "<<arr[i]<<" and is repeated "<<count<< " times "<<endl;

return 0;
}
```
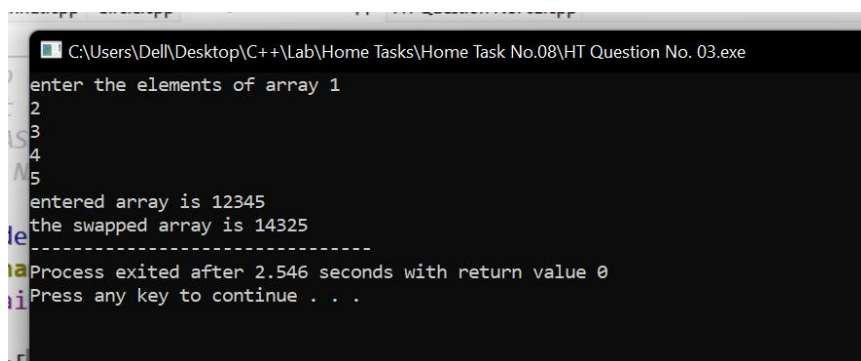
QUESTION NUMBER 02

```
/*_____
Let's say an array is a[8] = {13, 15, 17, 9, 99, 77, 65, 43}. Find largest and
smallest element
HOME TASK  8 Q#03
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*/
#include <iostream>
using namespace std;
 int main()
 {
int arr[8]={13, 15, 17, 9, 99, 77, 65, 43} , max=0 ; int min=arr[0];  //declaring max and
minimum
for (int i=0;i<8;i++)  //using for loop
{
        if ( max<arr[i]) {   //if maximum is less than each number of array
        max= arr[i];
        }
         if (min>arr[i]){
                min=arr[i];
        }
        }
                cout<<"the maximum number in given array is "<<max<<endl;  //printing
largest number
                cout<<"the minimum number in array is "<<min<<endl;  //printing smallest
        return 0;
        }
```

QUESTION NUMBER 03

```cpp
/*_____
Develop a program that takes 5 array elements from user. Swap position [2]
element with position [4] element
HOME TASK  8 Q#03
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*/
#include <iostream>
using namespace std;
 int main()
 {
int arr[5],a;   //declraing array and a
cout<<"enter the elements of array ";   //input from user
for (int i=1;i<=5;i++)
{
      cin>>arr[i];
       }
       cout<<"entered array is ";   //printing entered array
       for (int i=1;i<=5;i++){
       cout<<arr[i];
}
cout<<endl;


      a=arr[2];  //swapping elements
      arr[2]=arr[4];
      arr[4]=a;

      cout<<"the swapped array is ";  //printing swapped array
      for (int i=1;i<=5;i++ )
{
                    cout<<arr[i];
}

return 0;
}
```

```
C:\Users\Dell\Desktop\C++\Lab\Home Tasks\Home Task No.08\HT Question No. 03.exe

enter the elements of array 1
2
3
4
5
entered array is 12345
the swapped array is 14325
--------------------------------
Process exited after 2.546 seconds with return value 0
Press any key to continue . . .
```

```cpp
#include <iostream>
using namespace std;
 int main()
 {
int arr[5],a;    //declraing array and a
cout<<"enter the elements of array ";    //input from user
for (int i=1;i<=5;i++)
{
    cin>>arr[i];
    }
    cout<<"entered array is ";    //printing entered array
    for (int i=1;i<=5;i++){
    cout<<arr[i];
}
cout<<endl;


    a=arr[2];  //swapping elements
    arr[2]=arr[4];
    arr[4]=a;

    cout<<"the swapped array is ";  //printing swapped array
    for (int i=1;i<=5;i++ )
{
        cout<<arr[i];
}

return 0;
}
```