

**Date :** 1/10/2022

**Roll No. and Name :** 22BCE538 Shah Kaivan

**Course Code and Name :** 2CS302 Object Oriented Programming

**Practical No.: 1 (b).i**

**AIM:** Write a program in C to display and count a total number of duplicate elements in an array.

**Methodology followed:**

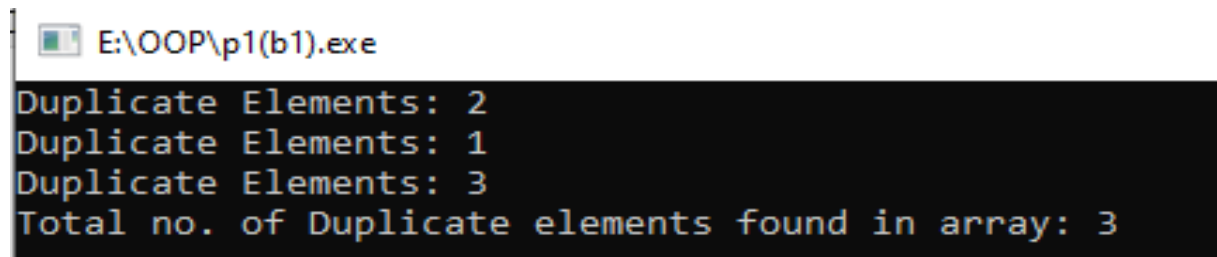
**Input:**

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
int main()
{
    int c=0,i,j;
    int a[6]={2,1,2,3,3,1};
    for(i=0;i<6;i++)
    {
        for(j=i+1;j<=6;j++)
        {
            if(a[j]==a[i])
            {
                c++;
                printf("DuplicateElements: %d\n",a[i]);
            }
        }
    }
    printf("Total no. of Duplicate elements found in array: %d",c);
    return 0;
}
```

**Output:**



```
E:\OOP\p1(b1).exe
Duplicate Elements: 2
Duplicate Elements: 1
Duplicate Elements: 3
Total no. of Duplicate elements found in array: 3
```

**Conclusion :**

I learnt that how can I count duplicate element in array using for loop and printing of these elements.

**Practical No.: 1 (b).ii**

**AIM:** Write a program in C to count the frequency of each element of an array.

**Methodology followed:**

**Input:**

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
int main()
```

```
{
```

```
    int i,j,k=0,n;
```

```
    int a[n],a1[n],a2[n];
```

```
    printf("Enter No. of elements to be stored in array: ");
```

```
    scanf("%d",&n);
```

```
    printf("Enter %d elemets: \n",n);
```

```
    for(i=0;i<n;i++)
```

```
    {
```

```
        printf("Element-%d: ",i);
```

```
        scanf("%d",&a[i]);
```

```
    }
```

```
    for(i=0;i<n;i++)
```

```
    {
```

```
        if(a[i]==0) continue;
```

```
        int c=1;
```

```
        for(j=i+1;j<n;j++)
```

```
        {
```

```

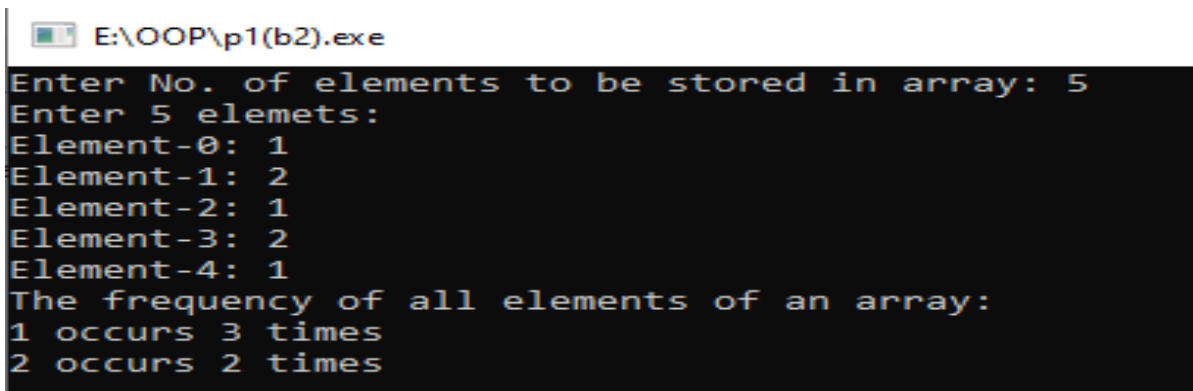
        if(a[j]==a[i])
        {
            c++;
            a[j]=0;
        }
    }
    a1[k]=a[i];
    a2[k]=c;
    k++;
}

printf("The frequency of all elements of an array: \n");
for(i=0;i<k;i++)
{
    printf("%d occurs %d times\n",a1[i],a2[i]);
}

printf("\n");
return 0;
}

```

### Output:



```

E:\OOP\p1(b2).exe
Enter No. of elements to be stored in array: 5
Enter 5 elemets:
Element-0: 1
Element-1: 2
Element-2: 1
Element-3: 2
Element-4: 1
The frequency of all elements of an array:
1 occurs 3 times
2 occurs 2 times

```

### Conclusion :

I am able to find frequency of all elements in array using nested loops and how to store these details.

### **Practical No.: 1 (c)**

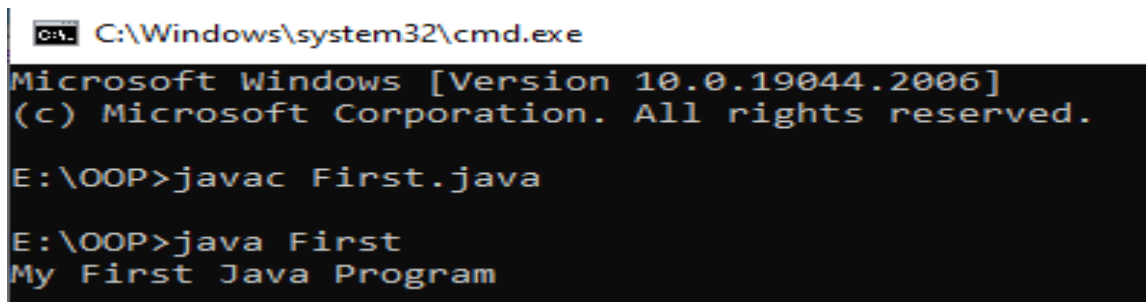
**AIM:** Write a Java program to display greeting message like: First Java Program....” on console.

#### **Methodology followed:**

##### **Input:**

```
class First
{
    public static void main(String args[])
    {
        System.out.println("My First Java Program");
    }
}
```

##### **Output:**

A screenshot of a Windows command prompt window. The title bar shows 'C:\Windows\system32\cmd.exe'. The window content displays the following text: 'Microsoft Windows [Version 10.0.19044.2006] (c) Microsoft Corporation. All rights reserved. E:\OOP>javac First.java E:\OOP>java First My First Java Program'. The text is in a monospaced font, with the prompt 'E:\OOP>' appearing twice. The output 'My First Java Program' is displayed on the line following the second prompt.

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.19044.2006]
(c) Microsoft Corporation. All rights reserved.
E:\OOP>javac First.java
E:\OOP>java First
My First Java Program
```

##### **Conclusion :**

I wrote my first code in java and get brief introduction and learnt about printing strings in java. I learnt terminal command to compile and run the code in java.

**Practical No.: 1 (d)**

**AIM:** Write a Java program to display all primitive type variables. Also display your name in the last line.

**Methodology followed:****Input:**

class Primitive

```
{  
    public static void main(String args[])  
    {  
        byte b=18;  
        int i=99;  
        boolean bool=true;  
        float f=99.99f;  
        double d=99.999999d;  
        short s=9;  
        char c='K';  
        String str="Shah Kaivan";  
  
        System.out.println("Value of Byte Variable: "+b);  
        System.out.println("Value of Integer Variable: "+i);  
        System.out.println("Value of Boolean Variable: "+bool);  
        System.out.println("Value of Float Variable: "+f);  
        System.out.println("Value of Double Variable: "+d);  
        System.out.println("Value of Short Variable: "+s);  
        System.out.println("Value of Character Variable: "+c);  
        System.out.println(str);  
    }  
}
```

## Output:

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.19044.2006]
(c) Microsoft Corporation. All rights reserved.

E:\OOP>javac Primitive.java

E:\OOP>java Primitive
Value of Byte Variable: 18
Value of Integer Variable: 99
Value of Boolean Variable: true
Value of Float Variable: 99.99
Value of Double Variable: 99.999999
Value of Short Variable: 9
Value of Character Variable: K
Shah Kaivan
```

## Conclusion :

I learnt about primitive data types in java and how to use that. I also got knowledge about every data-type's size and its importance.