CLASS X

Subject: Computer Application
Date: 02/07/20
Topic: Array.
Time Limit: 1 hour.

Worksheet No.: 10

INSTRUCTION Please go through all the questions and answers thoroughly.

• Write all the questions and answers in your exercise book.
• Ensure neat and tidy work
• Do not write above the red line of the notebook pages.
• Use single-lined notebook with ....64...... pages and write with blue ink.
• Make a content page first with different heads as given bellow.

<table>
<thead>
<tr>
<th>Date</th>
<th>Worksheet no</th>
<th>Chapter no and name</th>
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**ARRAY**

We discussed earlier int array and String array. Like wise we can have char array also.
In below few examples are given

Example 1

```java
/*
In the given program few letters are stored in the array ar[].
And we are printing all the elements of the array.
*/

class Display {
    public static void main() {
        char ar[]={'A','B','C','D','E'};
        int i,L=0;
        L=ar.length-1;
        for(i=0;i<=L;i++)
```
{  
    System.out.println(ar[i]);  
    
}  
}  
}  
}  
}  

Example 2

/************************************************************************

Example 2
*/

class Display
{
    public static void main()
    {
        char ar[]={'a','b','c','d','e'};
        int i,L=0,k=0;
        L=ar.length-1;

        for(i=0;i<=L;i++)
        {
            if(ar[i]=='a'||ar[i]=='e'||ar[i]=='i'||ar[i]=='o'||ar[i]=='u')
            {
                k++;
            }
        }
    }
}
Program 1

Input 10 numbers in an array and sort them in ascending order by using Selection sort technique.

```java
import java.util.*;
class Selection {
    public static void main() {
        Scanner in = new Scanner(System.in);
        int ar[] = new int[10];
        int i, j, L = 0, t = 0, p = 0, n = 0;

        L = ar.length - 1;
```
for(i=0;i<=L;i++)
{
    System.out.println("Enter a number in the array");
    ar[i]=in.nextInt();
}

for(i=0;i<=L;i++)
{
    n=ar[i];
    p=i;

    for(j=i+1;j<=L;j++)
    {
        if(ar[j]<n)
        {
            n=ar[j];
            p=j;
        }
    }
    ar[p]=ar[i];
ar[i]=n;
}

for(i=0;i<=L;i++)
{

After inputting elements in the array
In the selection sort program we are finding the smallest number present in the array ar and stored it in the variable n and position of the number in the variable p.
Then we are interchanging the value of first cell of the array and value of p<sup>th</sup> cell of the array.
Then we find the second smallest number in n and position in p and interchange with the 2<sup>nd</sup> cell. This process continuous until we reach to the last cell.

Program 2
Input 10 words in an array and sort them in alphabetical order by using Selection sort technique.

```java
import java.util.*;
class Selection {
    public static void main() {
        System.out.println(ar[i]);
    }
}
```
Scanner in = new Scanner(System.in);
String ar[] = new String[10];
int i, j, L = 0, p = 0;
String t = "", n = "";
L = ar.length - 1;
for (i = 0; i <= L; i++)
{
    System.out.println("Enter a word in the array");
ar[i] = in.next();
}

for (i = 0; i <= L; i++)
{
    n = ar[i];
p = i;

    for (j = i + 1; j <= L; j++)
    {
        if (ar[j].compareTo(n) < 0)
        {
            n = ar[j];
p = j;
        }
    }
ar[p] = ar[i];
    ar[i]=n;

    }
  }
  for(i=0;i<=L;i++)
  {
    System.out.println(ar[i]);
  }
}