/*Day 53 coding Statement : Given an integer array of size N. Write Program to find maximum product subarray in a given array.*/

```
import java.util.*;
import java.lang.*;
import java.io.*;
public class Main
{
static void swap(int arr[],int start, int end)
{
}
int temp = arr[start];
arr[start] = arr[end];
arr[end] = temp;

static void SpecialSort(int vec1[],int n)
{
Arrays.sort(vec1);
int idx=0;
while((idx<n) && (vec1[idx] < 0))
{
idx++;
}
int start = idx,end = n-1;
while(start<end)
{
swap(vec1,start,end);;
start++;end--;
}
}
```

```
static int MinimumScalarProduct(int vec1[], int vec2[], int n)
{
int min,sop=0;
int id1=0,id2=0;
for(int i = 0 ; i<n ; i++)
{
min = Integer.MAX_VALUE;
for(int j = i ; j<n ; j++)
{
if((vec1[i]*vec2[j]) < min)
{
}
}
min = vec1[i]*vec2[j];
id1 = i; id2 = j;
sop = sop + min;
swap(vec1,i,id1);
swap(vec2,i,id2);
}
return sop;

}
public static void main(String[] args) throws java.lang.Exception
{
Scanner sc = new Scanner(System.in);
int n = sc.nextInt();
int vec1[] = new int[n];
for(int i = 0 ; i<n ; i++)
{
}
vec1[i] = sc.nextInt();
```

```
int vec2[] = new int[n];
for(int i = 0 ; i<n ; i++)
{
vec2[i] = sc.nextInt();
}
SpecialSort(vec1,n);
System.out.print(MinimumScalarProduct(vec1,vec2,n));
}
}
```