Data Structures and Algorithms
CSE2001
Lab - 8 - Assignment - 1

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Problem : Find whether an array is subset of another array

Code

```java
import java.util.*;

class Subset1 {
    static boolean subset_arrays(int arr1[], int arr2[], int m, int n) {
        int i = 0;
        int j = 0;
        for (i = 0; i < n; i++) {
            for (j = 0; j < m; j++) {
                if (arr2[i] == arr1[j])
                    break;
            }

            if (j == m)
                return false;
        }

        return true;
```

```java
    }

public static void main (String[] args)
{
int m,n,i;
int arr1[] = new int[10];
int arr2[] = new int[10];
Scanner sc = new Scanner(System.in);
System.out.print("Enter the size of array 1 : ");
m = sc.nextInt();
System.out.print("Input the array 1 elements : ");
for(i=0;i<m;i++)
{
arr1[i] = sc.nextInt();
}

System.out.print("Enter the size of array 2 : ");
n = sc.nextInt();
System.out.print("Input the array 2 elements : ");
for(i=0;i<n;i++)
{
arr2[i] = sc.nextInt();
}

if(subset_arrays(arr1,arr2,n,m))
System.out.print("\nArray 2 is a subset of array 1\n");
else
System.out.print("\nArray 2 is not a subset of array 1\n");
}
}
```

Output

```
C:\Users\yashw\Desktop\Summer\Labs>javac Subset1.java --release 8

C:\Users\yashw\Desktop\Summer\Labs>java Subset1
Enter the size of array 1 : 6
Input the array 1 elements : 1 2 3 4 5 6
Enter the size of array 2 : 3
Input the array 2 elements : 1 2 3

Array 2 is a subset of array 1

C:\Users\yashw\Desktop\Summer\Labs>java Subset1
Enter the size of array 1 : 6
Input the array 1 elements : 1 2 3 4 5 6
Enter the size of array 2 : 3
Input the array 2 elements : 7 8 9

Array 2 is not a subset of array 1

C:\Users\yashw\Desktop\Summer\Labs>
```