**1)What are your roles and responsibilities as a jr tester?**

**1)Can you explain your project in brief?**

**2) what is your day to day activities?**

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**1)what is array? and why we use array?**

ans==>> array is a collection of similar types of data.

arrays are specially useful because they allow you to organize data so that related values are kept together. array help to increase code optimization. array can store variables and objects of class.

syntax=> int [] marks=new int[5]

initialization=> marks[0]=20;

marks[1]=30;

marks[2]=40;

access==> system.out.println(marks[2]);

**2)On which memory arrays are created in Java?**

ans=>>Arrays are created on dynamic memory by JVM. There is no question of static memory in Java everything (variable, array, object, etc.) is created on dynamic memory **only.**

**3)What are the types of an array?**

ans=>>Arrays are generally categorized into two parts as described below:

i)Single Dimensional Array

ii)Multi-Dimensional Array (2D and 3D arrays)

**4)Is it possible to declare array size as negative?**

ans=>>No, it is not possible to declare array size as negative.

Still, if we declare the negative size, there will be no compile-time error.

But we get the NegativeArraySizeException at run-time.

**5)What is the difference between int array[] and int[] array?**

ans==>>There is no difference between array[] and []array. Both array[] and []array are the ways to declare an array. The only difference between them is that if we are declaring more than one array in a line, we should use prefix []. If we are declaring a single array in a line, we should use postfix [].

**Example :**

**int array1[], array2; //array1[] is an array while array2 is just a variable of type int**

**int[] arr1, arr2; //both arr1 and arr2 are arrays of int type**

**6)What is the default value of the array?**

ans==>>When we create a new array, it always initialized with the default values. The default values of the array are:

-If an array is of byte, short, int, and long type, the default value is 0.

-If an array is of float and double type, the default value is 0.

-If an array is of Boolean type, the default value is false.

-If an array is of an Object type, the default value is null.

**7) How many ways to find the duplicate elements in an array?**

--->Brute Force Method: In this method, we compare each element of an array with the other elements. If any of the two elements are found equal, we consider them as duplicates. The method has time complexity O(n2).

--->Using HashSet: We can also use the HashSet class to find the duplicate elements in an array.

To find the duplicate elements, iterate over the array elements and insert them into HashSet by invoking add() method of the HashSet class.

If the method returns false it means that the element is already present in the Set. It takes O(n) time to find the duplicate elements.

--->Using HashMap: We know that HashMap uses key-value pair to store an element.

When we use HashMap to find the duplicate array, we store the elements of the array as keys and the frequency of the elements as values.

If the value of any key is greater than 1, the key is a duplicate element. Its time and space complexity is O(n). Using this method,

we can also find the number of occurrences of duplicates.

**8) Which operations can be performed on an array?**

ans==>> On an array, we can perform the searching, sorting, traversal, deletion, and insertion operation.

**9) Can a Set be an array?**

ans===>> In Java, a Set is an array, but an array is not necessarily a Set.

Because repetition is allowed in array but in Set.

**For example, consider the following figure:**

