

1. What is the default value of Array for different data types?

Answer: Default values for different data types in an array are:

- a. For numeric primitive types (byte, short, int, long, float, double) the default value is 0.
- b. For the char type, the default value is '\u0000', which is the Unicode null character.
- c. For the boolean type, the default value for array is false.
- d. For reference types (e.g. objects, arrays), the default value is null.

2. Can you pass the negative number in Array size?

Answer: No, we cannot pass a negative value as the size of an array in Java. Arrays have a fixed size that is determined when the array is created, and the size must be a non-negative value. Attempting to create an array with a negative size will result in a 'NegativeArraySizeException' being thrown.

3. Where does array stored in JVM memory

Answer: Arrays are stored in the heap area of the memory and stack memory contains a reference to it.

4. What are the disadvantages of Array?

Answer: Following are the disadvantages of Array:

- a. Size of an array can't be changed.
- b. Array only stores homogeneous data.

5. What is an Anonymous Array in Java? Give an example.

Answer: In Java, an anonymous array is an array that is declared and instantiated in a single line of code, without giving it a name. An anonymous array is used as an argument in method calls. For example:

```
class Main {  
    public static void main(String[] args) {  
        sum(new int[]{1, 2, 3, 4, 5});  
    }  
  
    public static void sum(int[] array) {  
        int sum = 0;  
        for (int i : array) {  
            sum += i;  
        }  
        System.out.println("Sum: " + sum);  
    }  
}
```

6. What are the different ways to traverse an Array in Java?

Answer: There are mainly two ways to traverse an array in Java:

- a . Using a for loop: A for loop can be used to traverse the array index. This method is best for arrays with a fixed size.
 - b. Using the enhanced for loop: The enhanced for loop, also known as the for-each loop, is used to traverse arrays and collections in Java. this loop is best when we only need to access the elements of the array and don't need to modify them.
- We can also use a while loop but, it is not generally used to traverse an array.

7. What is the difference between length and length() method? Give an Example.

Answer: Difference between length and length() method:

length:

- a. "length" is a property of an array.
- b. It returns number of elements in the array.
- c. It can be used on an array of any data type.
- d. Example : `int[] array = new int[5];`
`int length = array.length;`

length():

- a. "length()" is a property of String.
- b. It returns number of characters in a String.
- c. It is specific to String data type.
- d. Example: `String name = "Aditya Ghosh";`
`int length = name.length();`