Array in Java

Q.1 * what is the default values of Array for different types?

Ans.1 * Array are treated as objects, internally based on the type of data we keep inside array JVM will keep default values.

Example

```
int[] a = new int[4];
System.out.println(a[0]); // 0
```

Q.2 * Can you pass the Negative number in Array size?

Ans.2 * No, we can not pass the Negative Number in Array size, if we declare an array with negative size it would result in a Negative Array size exception.

Example

int[] b = new int[-3]; //NegativeArraySize
-Exception.

* Q.3 * When does Array Stored in JVM memo
-ry?

* Ans:3 * Arrays are objects and their
Memory allocation is Managed by the JVM.
the memory for Array is allocated on
the Heap; which is the region of
memory used for dynamic object alloca
-tion.

* when you create an Array, either with
the new keyword or as part of an
array literal, the JVM allocate memory
for the Array on the Heap.

* Q.4 * what are the disadvantages of
Array?

* Ans:4 * Following are the disadvantage
of Array.

* Once we create the size cannot be
increased/decreased.

* It stores only homogenous data elements

* **Q·5** * What is an Annoymous Array in Java? Give example?

Ans:5 * An Array without a name is Called Annoymous Array

* this type of array is created Just for instance use.

* ── Example ── *

```
public class Demo {
    public static void main (String... args) {
        add (new int [] {10, 20, 30, 40});
        add (new int [] {10, 20});
        add (new int [] {});
    }
    public static void add (int [] a) {
        Sum += 0;
        for(int i = 0; i ≤ a.length; i++) {
            Sum += a[i];
        }
        System.out.Println("the Sum is:" +Sum);
    }
}
```

output
the sum is: 100
the sum if: 30
the sum if: 0

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

Ans:6 In Java there are several ways to traverse (iterate through) an array. the choice of traversal method depends on the specific requirement of your code.

1. using for loop.
2. Enhance for loop (for each loop)

3.
using Arrays.toString() method
4. using Array.asList() and for-each loop for non-primitive arrays

5. using Iterator
6. using Java Streams.

```
int[] a = { 1, 2, 3, 4, 5 };
for (int i=0; i<a.length; i++) {
    System.out.println(a[i]);
}
```

2. Enhance for loop

```java
int[] a = {1, 2, 3, 4, 5};
for(int element: a){
    System.out.println(element);
}
```

3. using Arrays.toString() method

```java
int[] b = {1, 2, 3, 4, 5};
System.out.println(Arrays.toString(b));
```

4. using Array.aslist() and for-each loop for non primitive arrays

```java
Integer[] a = {1, 2, 3, 4, 5};
for(Integer element: Array.aslist(a))
{
    System.out.println(element);
}
```

4. using Java Streams

```java
int[] a = {1, 2, 3, 4, 5}
Arrays.stream(a).forEach(System.out::
                            println);
```

* 6. using iterator *

```
Integer[] b = {1,2,3,4,5};

Iterator<Integer> iterator = Arrays.aslist(
                                iterator();
while(iterator. hasNext()) {
    System.out.println(iterator.next());
}
```

Q.7 what is the difference b/w length and length() method Give an example.

Ans:7 *** length *** It is a property of the Array type class.

* length() * It is a method of string class.

* Example * for length *

```
int[] a = {1,2,3};
System.out.println(a.length);
// 3
```

* Example for length() *

```java
String[] names = {"Ajay", "Vijay", "Sanjay"};
System.out.println(names.length); // 3
System.out.println(names[0]); // Ajay
System.out.println(names[0].length());
// 4
```