**1.What is an Anonymous Array in Java ? Give Example.**

An Array in Java **without any name** is known as **an anonymous array**. It is an array just for creating and using instantly. Using an anonymous array, we can pass an array with user values without the referenced variable.

**Properties of Anonymous Arrays:**

* We can create an array without a name. Such types of nameless arrays are called anonymous arrays.
* The main purpose of an anonymous array is just for instant use (just for one-time usage).
* An anonymous array is passed as an argument of a method.

Syntax:

new <data type>[]{<list of values with comma separator>};

Examples:

// anonymous int array

new int[] { 1, 2, 3, 4};

// anonymous char array

new char[] {'x', 'y', 'z'};

// anonymous String array

new String[] {"Geeks", "for", "Geeks"};

**2. What is two-dimensional Array in Java?**

The Two Dimensional Array in Java programming language is nothing but an Array of Arrays. In Java Two Dimensional Array, data stored in row and columns, and we can access the record using both the row index and column index .

Declaration of 2D Array: Data\_Type[][] Array\_Name;

Creating a 2D Array: Data\_Type[][] Array\_Name = new int[Row\_Size][Column\_Size];

Example: int[][] Student\_Marks = new int[2][3]; //Declaring and Creating a Two Dimensional Array in Java

Student\_Marks[0][0] = 15; // Initializing Array elements at position [0][0]

Student\_Marks[1][1] = 45; // Initializing Array elements at position [1][1]

Student\_Marks[2][1] = 65; // Initializing Array elements at position [2][1]

**3. What is the difference between Array and ArrayList ?**

Array is static in size i.e of fixed size length. Size can not be changed after declaration. ArrayList is dynamic in nature. If you add elements to an ArrayList, it will automatically increases its size.

Array can contain both primitive and object data types. ArrayList does not contain primitive data types. It only contains object entries.

Example: Array

String arr[] = {“A” , “B” , “C”};

ArrayList:

ArrayList<String> arrList = new ArrayList<>();

arrList.add(“A”);

arrList.add(“B”);

arrList.add(“C”);

**4.What will happen if you do not initialize an Array?**

Even if you do not initialize the array, the Java compiler will not give any error. Normally, when the array is not initialized, the compiler assigns default values to each element of the array according to the data type of the element.

Example: for string:

String arr[] = new String[3], it will store a default of {“”,””,””}.

**5. What are the different ways to traverse an Array in java?**

a. Using for loop

b. Using for-each loop

Example:

For loop:

For(int i=0;i<=arr.length;i++)

{

System.out.println(arr[i]);

}

For-each loop:

for(String str:arr){

System.out.println(str)

}

CODE SNIPPETS ON ARRAYS

1. Write a program to print the array?

Graphical user interface, text, application

Description automatically generated

2.Write a program to take the values of an array from user?

Graphical user interface, text, application

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3.write a program to sort an array?

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4.write a program to copy elements in one array to another?

Graphical user interface, text, application

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5.write a program to find the largest number in an array?

Graphical user interface, text, application

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