1.What do you mean by an Array?

Ans. The array is a data structure where values or items are placed in a linear order, which means the memory assigned to each item is contiguous. The data type of an array is the same for all the elements present in it.With the contiguous memory allocation, it becomes easier to find out the memory location of any element in the array by just knowing the first memory location and adding the offset.

2.How to create an array?

Ans. The easiest way to declare and initialize an array of a primitive type such as int in Java is by using the following syntax.int[] e.g. myArray = new int[]{1, 2, 3};

This does a few things at once.

* The int[] myArray says that we want to declare a new variable called myArray that has the type of an array of integers.
* new int[] says we want to immediately allocate memory to store data in this array.
* {1,2,3} is the data we want to store in the array. Java will count the elements in our initial array and automatically initialize the array with enough memory for three ints.

3.can we change the size of an array at run time ?

Ans. We must decide the size of the array when it is constructed. We can't change the size of the array after it's constructed. However, we *can* change the number of elements in an ArrayList whenever you want.

4.Can we declare an array without assigning the size of an array?

Ans. Yes. We can declare an array without size but before using it needs to be initialized.

5.What is a 1D array with an example?  
Ans. A 1-dimensional array is a linear data structure in the Java programming language, consisting of a fixed number of elements of the same data type, stored in contiguous memory locations. It can be visualised as a sequence of values, indexed by a single integer.  
For example, int myArray[5] = {1, 2, 3, 4, 5};

6.Write a program on a 2D array?

Ans. public class upGradTutorials {  
 public static void main(String[] args) {  
 int[][] matrix = new int[3][4];  
 matrix[0][0] = 1;  
 matrix[0][1] = 2;  
 matrix[0][2] = 3;  
 matrix[0][3] = 4;  
 matrix[1][0] = 5;  
 matrix[1][1] = 6;

matrix[1][2] = 7;  
 matrix[1][3] = 8;  
 matrix[2][0] = 9;  
 matrix[2][1] = 10;  
 matrix[2][2] = 11;  
 matrix[2][3] = 12;  
 for (int i = 0; i < matrix.length; i++) {  
 for (int j = 0; j < matrix[i].length; j++) {  
 System.out.print(matrix[i][j] + " ");  
 }  
 System.out.println(); // Move to the next line after each row  
 }  
 }  
 }