**Java Arrays:**

An array is a collection of similar type of elements.

Java array is an object which contains elements of a similar data type. It is a data structure where we store similar elements. We can store only a fixed set of elements in a Java array.

**Advantages:**

Code Optimization

Random Access

**Disadvantages:**

Only fixed size of elements can be stored in an array.

**Types of Array:**

Single Dimensional

Multi-Dimensional

**Declaring Single Dimensional Array:**

datatype[] arr;

datatype []arr;

datatype arr[];

**How to instantiate an array:**

ArrayRefVar = new datatype[size];

Example:

**package** FPPackage;

**public** **class** ArraysDemo {

**public** **static** **void** main(String[] args) {

**int** testarray[] = **new** **int**[5];

testarray[0] = 1;

testarray[1] = 2;

testarray[2] = 3;

testarray[3] = 4;

testarray[4] = 5;

System.***out***.println(testarray[0]);

System.***out***.println(testarray[1]);

System.***out***.println(testarray[2]);

System.***out***.println(testarray[3]);

System.***out***.println(testarray[4]);

}

}

Array length can be found with .length

Ex: testarray.length

**package** FPPackage;

**public** **class** ArraysDemo {

**public** **static** **void** main(String[] args) {

**int** testarray[] = **new** **int**[5];

testarray[0] = 1;

testarray[1] = 2;

testarray[2] = 3;

testarray[3] = 4;

testarray[4] = 5;

System.***out***.println("Array length is "+testarray.length);

**for**(**int** i=0; i<testarray.length; i++) {

System.***out***.println(testarray[i]);

}

}

}

We can declare, instantiate and initialize an array as following.

int a[] = {1,2,3,4,5}

Example:

**package** FPPackage;

**public** **class** ArraysDemo {

**public** **static** **void** main(String[] args) {

**int** testarray[] = {1,2,3,4,5};

System.***out***.println("Array length is "+testarray.length);

**for**(**int** i=0; i<testarray.length; i++) {

System.***out***.println(testarray[i]);

}

}

}