



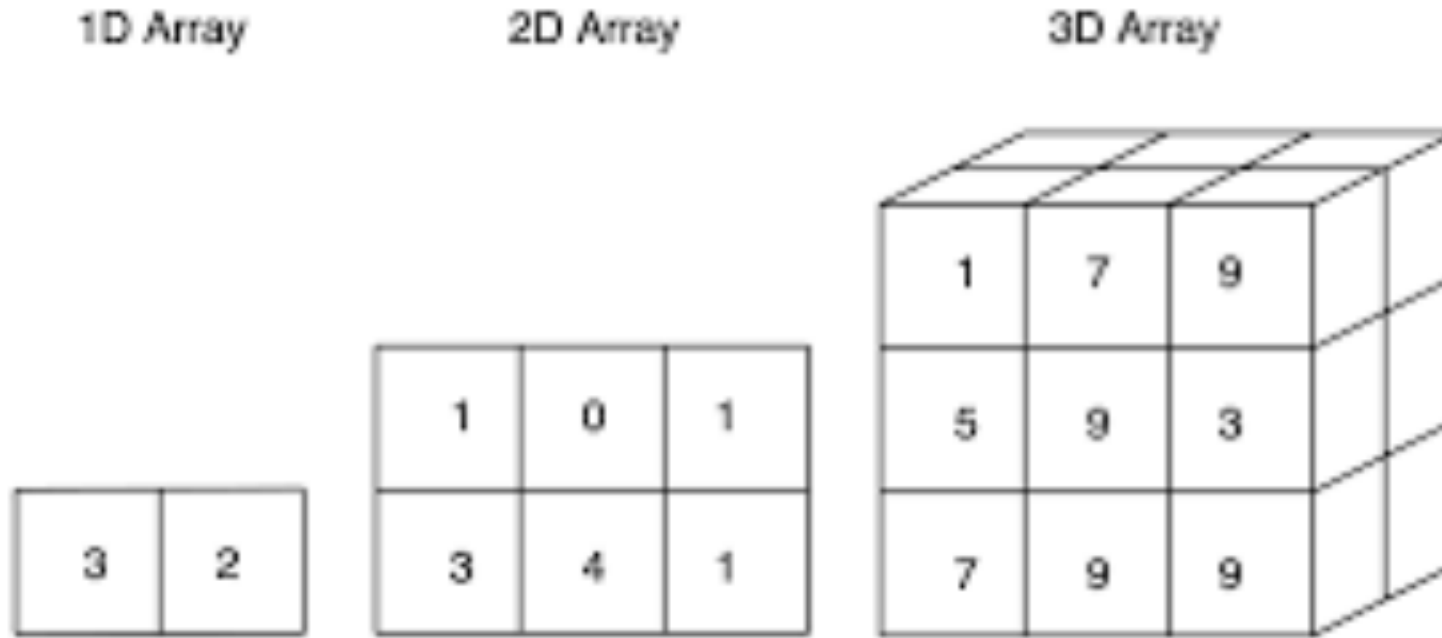
Multi-Dimensional Array

array of arrays also known as a multidimensional array

```
datatype[ ][ ] identifier;
```

```
String[][] names.
```

can have multiple rows and multiple columns



multidimensional array is an array whose components are themselves arrays.

```
package arraypack;
```

```
public class  
MultiDimArrayDemo {
```

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

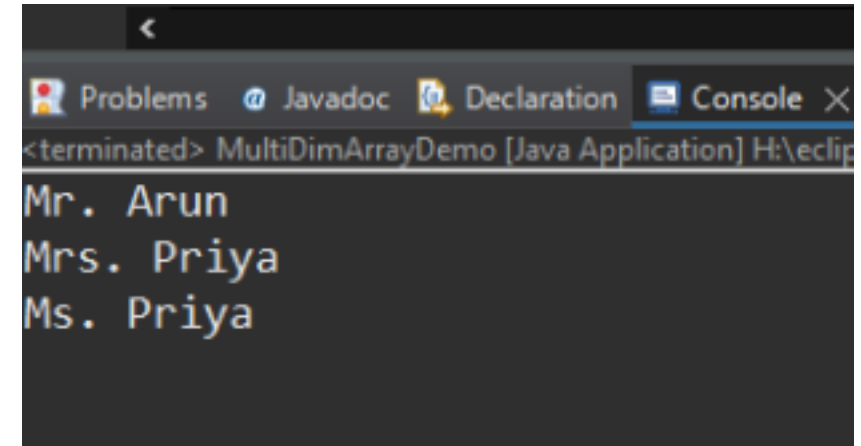
```
String[][] names = {  
    {"Mr. ", "Mrs. ", "Ms."  
    }, // first row {"Arun",
```

```
"Priya"} // second row  
};
```

Mr

Mrs

Arun Priya
Ms



```
<terminated> MultiDimArrayDemo [Java Application] H:\eclip  
Mr. Arun  
Mrs. Priya  
Ms. Priya
```

```
System.out.println(names[0][0] +  
names[1][0]); System.out.println(names[0][1]  
+ names[1][1]);  
System.out.println(names[0][2] +  
names[1][1]);
```

Create an Array

new

```
{98,76,65,54,43}  
};
```


```
int[ ][ ] arr = {  
{11,23,34,45,56},  
{67,78,89,10,22},
```

Accessing array element


```
arr[1][2]
```

valid syntax for String array in main()

```
public static void main(String[ ]  
args)
```

Q: can I use The Java for-each (Enhanced for) Loop for 2-dimensional array ?

```
public class TwoDArrayExample
```

```
    public static void main
```

```
    {  
        int twoDArray = { { 1 2 3 4 5 6 7 8 9 }  
    }
```

```
        for (int rowValue = twoDArray.length - 1; rowValue >= 0; rowValue--)  
        {  
            for (int colValue = rowValue; colValue >= 0; colValue--)  
            {  
                colValue = rowValue - colValue;  
                System.out.print(" ");  
            }  
            System.out.println();  
        }  
    }  
}
```

```
public class TwoDArrayExample  
{  
    public static void main
```

```
    {  
        String[][] names = { { "B", "A", "D", "R" }, { "Bini", "Arun", "Devu", "Rukku" }  
    }  
}
```

```
    for (String rows : names  
    {  
        for (String col : rows)  
        {  
            System.out.print(col + " ");  
        }  
        System.out.println();  
    }  
}
```

```
for String cols in rows
```

```
    cols += "\t "
```

2.run by > java CommandLineExample **luminar**
technolab

Output: Your first argument is: luminar
Luminar
technolab

1.compile by > javac CommandLineExample.java



Package Explorer

MOD_01_Fundamentals

- JRE System Library [JavaSE-17]
- src
 - com
 - CommandLineExample.java

CommandLineExample.java

```
1 package com;  
2  
3 public class CommandLineExample {  
4     public static void main(String[] args) {  
5         System.out.println("Your first argument is: "+args[0]);  
6         for(String str:args)  
7             System.out.println(str+"\n");  
8     }  
9 }  
10
```

Problems Javadoc Declaration Console

<terminated> CommandLineExample [Java Application] H:\eclipse\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.9.v20231028-08

1 Java Application Alt+Shift+X, J
Run Configurations...

Undo Typing
Revert File
Save
Open Declaration
Open Type Hierarchy
Open Call Hierarchy
Show in Breadcrumb
Quick Outline
Quick Type Hierarchy
Open With
Show In
Cut
Copy
Copy Qualified Name
Paste
Raw Paste
Quick Fix
Source
Refactor
Local History
References
Declarations
Add to Snippets...
Coverage As
Run As
Debug As
Profile As

