

ACCESS SPECIFIER

Access Specifier	Public	Private	Friendly (default)	Protected
Same class	Yes	Yes	Yes	Yes
Same package Sub class	Yes	No	Yes	Yes
Same package non-Sub class	Yes	No	Yes	Yes
Different package Sub class	Yes	No	No	Yes
Different package Non-Sub class	Yes	No	No	No

ARRAY :--

Array is a group of related data items stored in continuous memory location and having same name.

Declaration of Array :--

Like ordinary variable an array can be declared as follows :--

Syntax :

Datatype Variable_name[];

Or,

Datatype [] Variable_name ;

Eg :- int a [];

In the above declaration the array don't mention the size & no memory space is created.

Creating memory space :--

After declaring the array **new** keyword is used to create memory space for that array.

Syntax :-

Variable_name = new datatype [size];

Eg :- a= new int [3];

The above example can be combined by the following statement. We can say that

Syntax :-

Datatype Variable_name[] = new datatype [size];

or

Datatype []Variable_name = new datatype [size];

Initialization of Array :-

The final step is to put values into the array created. This process is known as initialization. This is done using the array subscripts.

```
Array_name[ ] = value;
```

Eg :- num [0] = 35;

 Num [1] = 40;

 Num [n] = 19;

Note :-- Java creates array starting with the subscript 0 and ends with a values one less than the size specified.

Unlike C, Java protects array from overflows and underflows. Trying to access an array bound its boundaries will generate an error message.

We can also initialize array automatically in the same way as the ordinary variables when they are declared.

Datatype array_name[] = { list of values };

The array initializer is initialized a list of values separated by commas and surrounded within curly braces.

Eg :- int num [] = {35,40,20,57,19};

ARRAY LENGTH :--

In java all arrays store the allocated size in a **variable_name** length. We can obtain the length of array using array_name.length_.

The array_name.length returns or gives the allocated size of array.

Eg :- `int a[]=new int[5];`

`int size = a.length;`

Q. write a java program to display the array contents.

Q. write a java program to input and display array contents.