

Agenda

Revision

- Ctor Chaining (Demo01 & Demo02)
- static
- packages
- Access Modifiers

setters & getters

Literals

singleton design pattern

Arrays

Ctor Chaining (Demo01 & Demo02)

Static (Demo03)

Package & Access Modifiers (Demo04)

Packages, Static, staticImport (Demo05)

Setters & Getters (Demo06)

- These are the methods that we generally use to provide permission for modifying or fetching the fields of the class.
- The method name of setters generally starts with set along with the name of field to be changed.
- The method name of getters generally starts with get along with the name of field to be fetched.
- These methods should be made public compulsory
- Setters do not return any thing. they accept one parameter of the type same as that of field that needs to be modified
- getters return the value of field so the return type should be same as that of the field.

Literals

```
int num1 = 10; (value 10 -> literal)
double num2 = 10.20; (value 10.20 -> literal)
String name = "rohan" (value rohan -> literal)
```

null -> literal

- null literal is used to initialize the references

Singleton (Demo07)

- It is a design pattern
- It is used only when you want to create single instance of your class.

Arrays (Demo08 to Demo12)

Array is reference type in java.

```
//int arr[] = new int[5];
//int arr[] = new int[] {10,20,30,40,50};
int arr[] = {10,20,30,40,50,60,70};

//array reference
    int arr1[];
    int [] arr2;

System.out.println("using for loop");
    for (int i = 0; i < arr.length; i++)
        System.out.println(arr[i]);

System.out.println("using for each");
    for(int num:arr) {
        System.out.println(num);
    }
```

- Exceptions
 1. ArrayIndexOutOfBoundsException
 - If you try to access index which does not exists
 2. NegativeArraySizeException
 - We cannot provide negative value for size of an array
 3. NullPointerException
 - If you dont keep any object inside the reference then you will get this exception
- Types of Array
 1. Single Dimensional Array
 2. Multi Dimensional Array
 3. Ragged Array

Lab Flow

1. slides -> 20 mins max
2. classWork -> 1 n half hr
3. Assignment -> 5-8 hrs

