Singleton class

- allowing only one object of class to be created

```
class Abc
{   static Abc obj= new Abc ();
    private Abc()
    {
    }
    public static Abc getInstance ()
    {   return obj;
    }
}
```

```
Abc obj1 = Abc.getInstance();
Abc obj2 = Abc.getInstance();
```

private method - can only be called inside of the class in which it is defined.

- Ball redBall = new Ball("red");

redBall is a reference to the object created by new Ball("red") statement.

- method should be of class type to return the object

- objects are passed by call by reference
- changes to the object inside the method do reflect the object used as an argument.

File a = new File ("_____");

↑ File object

↑ ~~passing~~ passing in a string the name of a file, a string or another file object

(9) java.io

- input and o/p to files, network streams

- Stream - series of data
- Java IO streams - flows of data that a user can either read from or write to.
- Stream has no concept of indexing the read or write data.

Standard streams →

- Standard input - keyboard is utilized as standard input stream and described as System.in
- Standard output - computer screen is used for standard o/p stream and described as System.out

(5) java.io.Writer

- abstract superclass
- represents a stream of characters
- it is not useful by itself
- its subclasses can be used to write data

```
Writer output = new FileWriter();
```

Write is an abstract class. So, we cannot create its object.

(Go through programiz.com)

OutputStreamWriter converts its characters into bytes.