File Class

- Used to access information about some specific file.
- Objects of `File` do not actually open any file.

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File Class

- Methods:
    - `boolean exists()`
    - `boolean isDirectory()`
    - `boolean isFile()`
    - `boolean createNewFile()`
    - `boolean delete()`
    - `boolean mkDir()`

RandomAccessFile

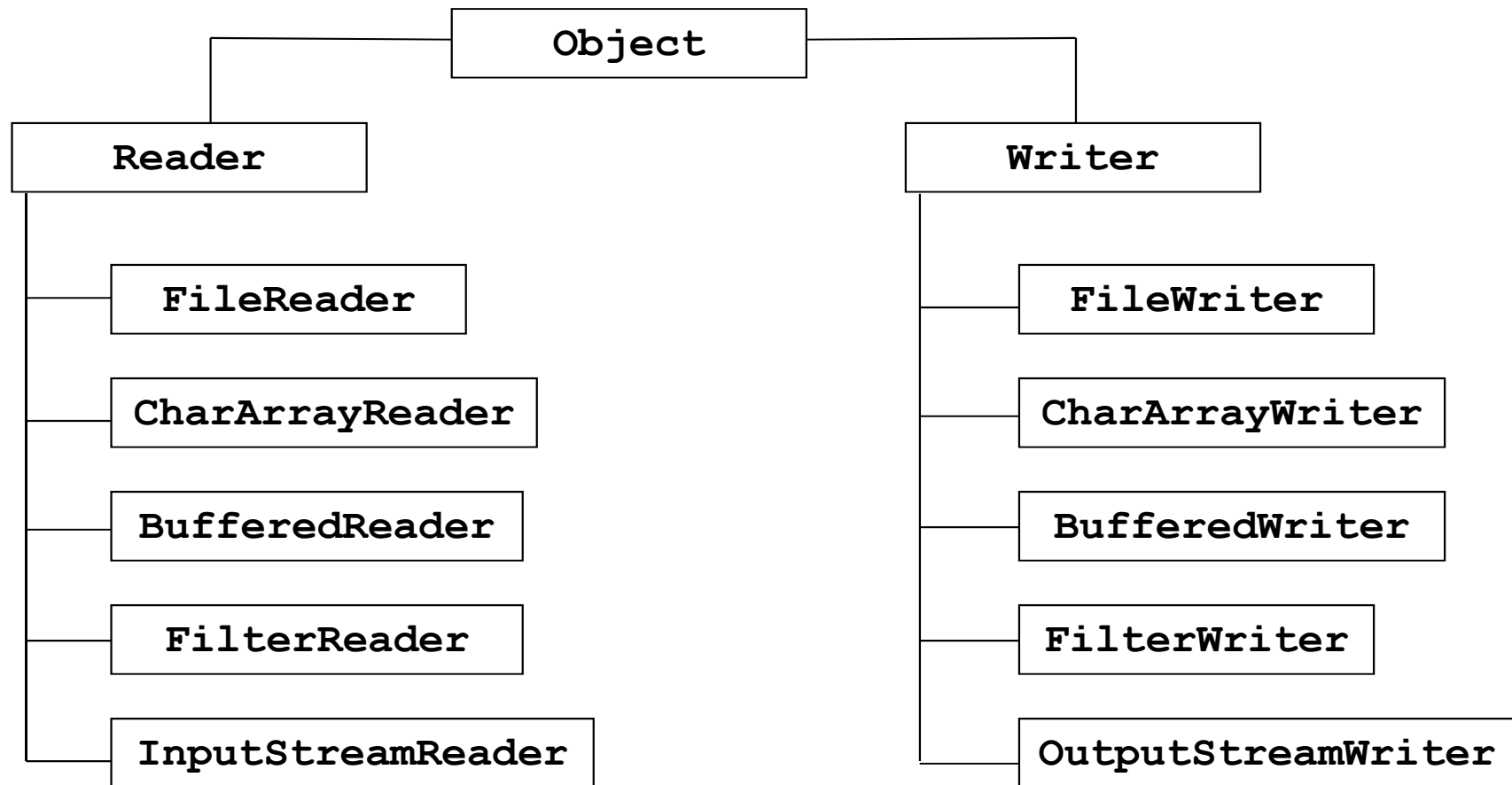By Rahul Barve

RandomAccessFile

- Allows to place file pointer anywhere in the file, using `seek()` method.

- Can be used to perform both operations:
  - Read
  - Write

- Inherited from `Object` class directly.

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Reader – Writer Hierarchy

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Reader – Writer Hierarchy

```
                        ┌──────────────┐
                        │    Object    │
                        └──────────────┘
        ┌───────────────────┘            └───────────────────┐
┌──────────────┐                                    ┌──────────────┐
│    Reader    │                                    │    Writer    │
└──────────────┘                                    └──────────────┘
   │                                                   │
   │    ┌────────────────┐                             │    ┌────────────────┐
   ├────│   FileReader   │                             ├────│   FileWriter   │
   │    └────────────────┘                             │    └────────────────┘
   │                                                   │
   │    ┌────────────────┐                             │    ┌────────────────┐
   ├────│ CharArrayReader│                             ├────│ CharArrayWriter│
   │    └────────────────┘                             │    └────────────────┘
   │                                                   │
   │    ┌────────────────┐                             │    ┌────────────────┐
   ├────│ BufferedReader │                             ├────│ BufferedWriter │
   │    └────────────────┘                             │    └────────────────┘
   │                                                   │
   │    ┌────────────────┐                             │    ┌────────────────┐
   ├────│  FilterReader  │                             ├────│  FilterWriter  │
   │    └────────────────┘                             │    └────────────────┘
   │                                                   │
   │    ┌──────────────────┐                           │    ┌──────────────────┐
   └────│ InputStreamReader│                           └────│ OutputStreamWriter│
        └──────────────────┘                                └──────────────────┘
```

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BufferedReader

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BufferedReader

- A character stream used to apply a buffering model for performance optimization.

- Provides a method `readLine()` which allows to read the contents line by line.

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System Class

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System Class

- A class from `java.lang` package.
- Provides `public static final` members to read from input device as keyboard and write to the console of the system.

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System Class

- `System.in`

  Reference of type `java.io.InputStream` that refers to the I/P device i.e. Keyboard.

- `System.out`

  Reference of type `java.io.PrintStream` that refers to the O/P device i.e. Console.

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Serialization

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Serialization

- The process of storing the state of an object to some permanent persistent store is called as Serialization.

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Serialization API

- To perform Serialization and De-Serialization, Java provides a relevant API known as Serialization API.

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Serialization API

- Serializable
- ObjectOutputStream
- ObjectInputStream

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Serializable

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Serializable

- A marker interface
- Needs to be implemented by a class of which an object is to be serialized.

ObjectOutputStream

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ObjectOutputStream

- A class used to perform serialization.
- Uses `OutputStream` as a target and provides void `writeObject(Object)` method to perform the serialization.

ObjectInputStream

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ObjectInputStream

- A class used to perform de-serialization.
- Uses `InputStream` as a source and provides `Object readObject()` method to perform the de-serialization.

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