<<Java Class>>
ⒼBody
org.kamla.kapoor

- △ carryForwardByte: byte
- △ carryForwardPosition: byte
- △ noOfZeros: long
- △ dictionary: Map<Long,List<Boolean>>
- △ outputBuffer: byte[]
- △ outputBufferIndex: short
- △ outputStream: FileOutputStream
- △ outputBufferSize: short

- ⚛Body()
- ● getNoOfZeros():long
- ● byteGenerator(byte):void
- ▣ writeOutput():void
- ▣ setCurrentBit(boolean):void

<<Java Class>>
ⒼHeader
org.kamla.kapoor

- △ dictionary: Map<Long,String>

- ⚛Header()
- ● getHeaderbytes(List<Pattern>):byte[]

<<Java Class>>
ⒼPatternFinalizer
org.kamla.kapoor

- ⚛PatternFinalizer(ZeroPattern
- ▣ returnKeySet():Set<Long>
- ▣ getMaxLoss(long,long,long,long):LeftRightPattern
- ▣ getMaxSaving(long,long,long,long):LeftRightPattern
- ● getPattern():List<Pattern>

-patternQueue 0..*

-zeroPattern 0..1

<<Java Class>>
ⒼPattern
org.kamla.kapoor

- ▢ replacePattern: long
- ▢ existingPattern: long
- ▢ count: long

- ⚛Pattern()
- ● getCount():long
- ● setCount(long):void
- ● getReplacePattern():long
- ● setReplacePattern(long):void
- ● getExistingPattern():long
- ● setExistingPattern(long):void
- ● getLeftRightPattern():LeftRightPattern
- ● setLeftRightPattern(LeftRightPattern):void

<<Java Class>>
ⒼZeroPattern
org.kamla.kapoor

- ▢ leftPattern: Map<Long,Lo
- ▢ rightPattern: Map<Long,L
- ▢ bothPattern: Map<Long,L
- ▢ simplePattern: Map<Long

- ⚛ZeroPattern()
- ● getSimplePattern():Map<L
- ● setSimplePattern(Map<Lo
- ● getLeftPattern():Map<Lon
- ● setLeftPattern(Map<Long
- ● getRightPattern():Map<Lo
- ● setRightPattern(Map<Lon
- ● getBothPattern():Map<Lo
- ● setBothPattern(Map<Long

-leftRightPattern 0..1

<<Java Enumeration>>
ⒺLeftRightPattern
org.kamla.kapoor

- §ℱleftPattern: LeftRightPattern
- §ℱrightPattern: LeftRightPattern
- §ℱbothPattern: LeftRightPattern
- §ℱsimplePattern: LeftRightPattern
- △ maxSaving: long
- △ maxLoss: long

- ⚛LeftRightPattern()
- ● getMaxLoss():long
- ● setMaxLoss(long):void
- ● getMaxSaving():long
- ● setMaxSaving(long):void

```
<<Java Class>>
  Ⓖ Kapoor
org.kamla.kapoor

  ⬤ᶜ Kapoor()
  ⬤ˢ main(String[]):void
```

```
        <<Java Class>>
          Ⓖ PatternFinder
        org.kamla.kapoor

  ▫ fileInputStream: FileInputStream
  ▫ bufferSize: int
  ▫ inputByteCount: long

  ⬤ᶜ PatternFinder(FileInputStream,int
  ⬤ getInputByteCount():long
  ⬤ setInputByteCount(long):void
  ⬤ getZeroPattern():ZeroPattern
```

```
   >
 n

ng>
ong>
ong>
,Long>

Long,Long>
ng,Long>):void
g,Long>
,Long>):void
ong,Long>
ng,Long>):void
ng,Long>
g,Long>):void
```