**HL7 Retrieve Patient Information**

**Step 1 :**

**Open file from the path**

* Create File object with filename ‘messages.txt’
* Create Scanner object using File object created as input.
* Use ScannerObject.hasNext() method to read each line in file that begins with string “PID”

**Step 2 :**

Read lines that begin with “PID” & store them in ArrayList of String type

**Step 3 :**

For each line in ArrayList, split the string at “\\|” into an array of type String. This will give all the fields in PID lines.

Desired fields can be selected using array index.

e.g : if you need field 3 i.e. Patient ID, select array at index 2

**Step 4 :**

Process the array and fetch required fields for Patient Class.

Create a new method which will take array as an input.

This method will again use split logic to fetch First Name, Last Name, Suffix, Address etc (split on “^”)

Get the desired fields from array, and create a Patient Class Object for each Patient.

**Step 5 :**

Store Patient information in arrayList of type Patient class & display data on console

Convert this arrayList into an Array. Use toString() method on array to display the snapshot of each Patient Objects on Console.

**Step 6 :**

Write a txt file “patient-summary.txt” with Patient Information

**Patient Class**

1. Set ID
2. Patient ID (String) – 3rd entry in PID line
3. Name (First, Last, Suffix) (three String fields) – 5th entry
4. DOB (Date) - 7
5. Sex(Char) - 8
6. Race (String) – 10
7. Citizenship (String – 26)
8. Address (Address Class type), Country Code – 11, 12
9. Phone Number – Home (String) – 13
10. Primary Language (String) - 15
11. Marital Status(Char) - 16
12. SSN Number (String) - 19
13. Patient Death Indicator (Boolean) - 30
14. Patient Death Date & Time(Date) – 29

**Classes :**

**HL7GetPIDInfo.java**

Main class, which will read input file

Store all PID lines in array List.

For each record in array List, split the line on “\\|” & store in an array of String type.

Thi array will be passed to class getPatientInfo.java

**getPatientInfo.java**

takes array of PID line fields as input.

After processing, stores the data in Patient Object.

Patient Object for current PID line is returned to main class HL7GetPIDInfo.java

**Patient.java**

Patient class has 14 fields to store Patient Information received in PID Lines

**Address.java**

Store addresses

**StringToDate.java**

This is a general class with one static method. This method will take String Date & its format as input.

It will parse the string date based on the format provided into a Date Object.

Return Date Object.

**WriteOutput.java**