program # 2   pgm2_5aCGS37670S .

worth 6 points, partial credit will be given,

In your Ubuntu VM (virtual machine), using terminal mode ONLY, do the following:

- Create a folder named pgm2

- In this folder place the text file located at:

  http://users.cis.fiu.edu/~mrobi002/databases/RAMerrors4

  ******* MAKE SURE NOT TO CHANGE THE FILE NAME *******

  Each record in this file represents the location of an error found in RAM

  Assume your computer has 4 gigs of RAM, each gig in a different memory chip,
  therefore you have 4 one gig RAM chips.

  A gigabyte contains 1,073,741,824 or 1024^3 or 2^30 bytes, which is also
  equivalent to 1,048,576 kilobytes or 1,024 megabytes.

  These are the addresses in each RAM chip in a computer with 4 (gigs) of RAM:

                                ------   decimal adresses ----------
     RAM chip 0 contain addresses: 0 - 1,073,741,823 bytes
     RAM chip 1 contain addresses: 1,073,741,824 - 2,147,483,647 bytes
     RAM chip 2 contain addresses: 2,147,483,648 - 3,221,225,471 bytes
     RAM chip 3 contain addresses: 3,221,225,472 - 4,294,967,295 bytes

- In the same folder (pgm2), use an editor in terminal mode, create a Java program
  named: lastName, First 3 letters of your first name and pgm2, to do the following:
  - Open the text file
  - Read each record in the file
  - Convert the record to binary
  - Convert the binary result to decimal
  - Find in which RAM chip is the decimal error found
  - Print the RAM memory chip where the error is located for each record as follows:
    example:
        hex number = binary number = decimal number located at x RAM chip

    *** CREATE YOUR OWN METHODS THAT WILL CONVERT
         HEX TO BINARY AND BINARY TO DECIMAL

    *** DO NOT USE JAVA'S AUTOMATIC CONVERSION METHODS

Submission of program 2:
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1 - Print your program 2, STAPLE IT and turn it in at the begining of class, when due.
2 - Upload your program 2 to https://moodle.cis.fiu.edu/ when this program is due,
    or before.

If you have any questions, please
1 - Ask me in class
2 - Ask me during my office hours
3 - email me
4 - Ask our FREE tutors at PG6 Room 102 Open M-TH   from 12noon to 8 pm
                                             Friday from 12noon to 5 pm
                                             Sat   from 12noon to 4 pm