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CSC 120 – Java Programming 1

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Dental Records Design:

1. Input
   1. Retrieve how many people in the family
      1. Validate that it is less than or equal to 6
   2. Retrieve the names of family members
      1. Store name in an array
   3. Retrieve the tooth types for upper teeth
      1. Validate it is I, B, or M
      2. Validate that it is less than or equal to 8 characters
         1. Upper and/ or lower case accepted
   4. Retrieve tooth types for the lowers
      1. Validate it's I, B, or M
      2. Validate it's less than or equal to 8 characters
         1. Upper and/ or lower case accepted
   5. Store tooth types of the family in a 3D array
      1. Plane corresponds to each
      2. Two rows that corresponds to upper and lower teeth
      3. Each column corresponding to a tooth
      4. Store tooth types of the family in a 3D array
2. Menu
   1. Prompt user to pick a menu option
      1. Repeat until exit is chosen
      2. Validate P, E, R or X was chosen
         1. Upper and/ or lower case accepted
   2. Print the record
      1. Print the uppers and lower teeth types of each family member
   3. Extract a tooth
      1. Retrieve family member
      2. Validate it's the right person
         1. Upper and/or lower case accepted
      3. Retrieve upper or lower
      4. Validate that a U or L was entered
         1. Upper and/or lower case accepted
      5. Retrieve tooth number
      6. Validate it corresponds
      7. Validate that there are no missing teeth
      8. Convert the corresponding tooth to type M in the array
   4. Report root canals
      1. Add the total number of I teeth in the family
      2. Add the total number of B teeth in the family
      3. Add the total number of M teeth in the family
      4. Find the roots of IX^2 + Bx – M using the totals
   5. Exit
3. Exit
   1. Print exit message
   2. Stop the menu from printing
   3. End the program