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**12110035 OTIE2**

“The Categories”

1. Each data set must have a variable that corresponds to at least one category it is part of.
   1. Example 1:   
      Groceries –  
      Item 1 is Apple under the Category of Fruits.   
      Item 2 is HoneyButterChips under the Category Snacks.   
      Item 3 is BitterMelon under the Category Vegetables.   
      Item 4 is Banana under the Category Fruits.
   2. Example 2:   
      Books –  
      Item 1 is CGArtsFundamentals under the Category Art.   
      Item 2 is MinnaNoNihongoShokyu1 under the Category Language.   
      Item 3 is TheRithmatist under the Category YoungAdult.   
      Item 4 is Genki1&2 under the Category Language.
2. When searching for an item’s details you need to know what Category it is on and at least part of what it’s string name is.
3. The computer will then first look at what the item’s category is. It will skip all of those that isn’t the same.
4. The computer will next look at the string name of every item then print out all the items with string names that contains the query.
5. This can be fine tuned by adding more categories per item.
   1. Example 1:   
      Groceries –  
      Item 1 is “Apple” Category1 is Fruits, Category2 is Red.   
      Item 2 is “Honey Butter Chips” Category1 is Snacks, Category2 is Yellow.   
      Item 3 is “Bitter Melon” Category1 is Vegetables and .   
      Item 4 is “Banana” Category1 is Fruits, Category2 is Yellow.
   2. Example 2:   
      Books –  
      Item 1 is “CG Arts Fundamentals” Category1 is Art, Category2 is NonFiction, Category3 is Education.   
      Item 2 is “Minna No Nihongo Shokyu 1” Category1 Language, Category2 is NonFiction, Category3 is Education.   
      Item 3 is “The Rithmatist” Category1 YoungAdult, Category2 is Ficiton, Category3 is Adventure.   
      Item 4 is “Genki 1 & 2” Category1 Language, Category2 is NonFiciton, Category3 is Education.