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**TITLE: ASSIGNMENT 3**

**COURSE: CSC235**

**LINK:**

**PSEUDOCODE TO SOLVE THE SELF DESCRIBING NUMBER PROBLEM**

* access the file
* create array countNo to store the number of times each digit appears
* create array intFileContent to store the integer equivalent of file content
* read number of test cases from the file
* create array testCases to store the number of test cases
* store the number of test cases into testCases array
* create array fileContent to store each case value as string
* Error handling if file reading is unsuccessful
* convert number of testCases to int
* check if number of testCases is greater than 1
* while each test case is truthy:
* loop1-through the fileContent
* initialize a count variable to 1 that represents the least appearance of each "string digit"
* store that the count of that variable in the countNo array at index of i
* if value of fileContent of loop1 equals that of loop 2:
* value of loop appears again, hence increase count and update array of that index
* else retain count to be last value recorded
* Create an array(boolArray) to hold "T" or "F" based on value of number array equaling current index
* insert the string of digits as integers in intFileContent
* loop3 through fileContent using
* initialize all i values of boolArray[i] to T
* loop4 though fileContent using j
* Check if value of intFileContent at index j is equal to index of i
* It true, check if value of intFileContent at index i = value of countNo at index j
* If true, the current digit fulfils self-description, hence initialize the current index at boolArray to be true;
* If false, the whole integer does not fulfil being self-descriptive. Hence print "Not self-descriptive”. Then return
* If all digits have been looped through and each fulfills self-description, then the whole integer is self-descriptive. Hence print self-descriptive!
* Close file!