Homework 2

CSCE 587

Fall 2016

Due: 09/15/2016 via Dropbox

Name: Sendurr Selvaraj

VIP ID: 00323540

> attach("/Users/Sendurr/Dropbox/Transfer/CSCE587 - Big Data/IntermediateR.RData")

The following objects are masked from file:/Users/Sendurr/Dropbox/Transfer/CSCE587 - Big Data/IntermediateR.RData (pos = 3):

numbers, scores, sudokus

The following objects are masked from file:/Users/Sendurr/Dropbox/Transfer/CSCE587 - Big Data/IntermediateR.RData (pos = 4):

numbers, scores, sudokus

The following objects are masked from file:/Users/Sendurr/Dropbox/Transfer/CSCE587 - Big Data/IntermediateR.RData (pos = 5):

numbers, scores, sudokus

The following objects are masked from file:/Users/Sendurr/Dropbox/Transfer/CSCE587 - Big Data/IntermediateR.RData (pos = 6):

numbers, scores, sudokus

The following objects are masked from file:/Users/Sendurr/Dropbox/Transfer/CSCE587 - Big Data/IntermediateR.RData (pos = 7):

numbers, scores, sudokus

The following objects are masked from file:/Users/Sendurr/Dropbox/Transfer/CSCE587 - Big Data/IntermediateR.RData (pos = 8):

numbers, scores, sudokus

> no\_of\_sudo = dim(sudokus)[3]

> no\_of\_column = dim(sudokus)[2]

> no\_of\_row = dim(sudokus)[1]

> result=c();

> # function to check unique numbers

> validate = function(a){

+ x = unique(a,incomparables = TRUE);

+ if (length(x) == 9){

+ return(TRUE);

+ }

+ else{

+ return(FALSE);

+ }

+ }

>

> # loop all the given sudoku sets

> for (i in 1:no\_of\_sudo){

+ #column check

+ for (j in 1:no\_of\_column){

+ a=sudokus[,j,i];

+ check = validate(a);

+ if(check == FALSE){

+ break;

+ }

+ }

+ if(check == FALSE){

+ next;

+ }

+ #row check

+ for (j in 1:no\_of\_row){

+ a=sudokus[j,,i];

+ check = validate(a);

+ if(check == FALSE){

+ break;

+ }

+ }

+ if(check == FALSE){

+ next;

+ }

+ #matrix check

+ for (j in 1:(no\_of\_column/3)){

+ col\_end = j\*3;

+ col\_start = col\_end -2;

+ for (k in 1:(no\_of\_row/3)){

+ row\_end = k\*3;

+ row\_start = row\_end -2;

+ a=sudokus[row\_start:row\_end,col\_start:col\_end,1];

+ check = validate(as.vector(a));

+ if(check == FALSE){

+ break;

+ }

+ }

+ if(check == FALSE){

+ break;

+ }

+ }

+ result=append(result,i);

+ }

>

> print("The genuine sudoku sets are given below thru their index.")

[1] "The genuine sudoku sets are given below thru their index."

> print(result);

[1] 1 13 16 19 23 28 37