

CIS 454: Software Implementation, Spring 22
In Class Exercise: 21st March

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Note: This document needs to be submitted on blackboard in “.pdf” format

Suggest test cases for an algorithm called ‘MakeGroups’ whose specification is given below; include test cases for both “normal” and “abnormal” (unusual or unexpected) inputs.

Input: A list of student records (with names and SUIDs)

Assume available: A method *friend(X,Y)* that returns *true* if *X* is a friend of *Y*.

Desired Output: A set of groups, such that almost every group contains four students, but no group contains any friends.

[Each test case must consist of an input and the corresponding desired output, described in English.]

Input	Output
["646315859", Kevin Lopez, 317999999, Diana Perez, Georgia Martinez, Asia Thomas] (1d list)	"Wrong Input"
(2d List correct input)	Correct Output
(3+d List)	"Wrong input"
(One of names has a number in it in 2d list)	"Wrong Input"
(If a group is not divisible by 4)	Last group must have less than 4 people
(If a group is all friends)	Empty List
(group where students are not all friends)	Groups of 4 in the order they appear
(group where there are the same student names)	Check SUID
(Group where SUID is the same for students)	"Wrong Input"