**GOAL:**

I should be able to give your code and directions to any statistics student and they should be able to produce the same schema that you have, which represents the desired study design. The input to your programs should be the parameters of #sites, #subjects/site, Randomization ratio, stratification levels.

1. Write code to create a reproducible completely randomized design schema for S subjects at T sites in blocks of B where randomization is N:D treatment:control
   1. Example 1: 30 subjects at site one in blocks of 6 where randomization is 1:1 treatment:control
      1. I want the result to be a sequential list of 30 codes that look like AAA##(T or C)
      2. AAA01T, AAA02T, AAA03C,…, AAA30T
   2. Example 2: 48 subjects at each of two sites in blocks of 12 where randomization is 3:1 treatment:control
      1. I want the result to be a sequential list of 96 codes that look like AAA##(T or C) or BBB##(T or C)
      2. AAA01T, AAA02T, AAA03C,…, AAA48T, BBB01T, BBB02T, BBB03C,…, BBB48T,

**Deliverables:**

1. Provide the code written in the R programming language
2. Provide the schema output for a complete example
3. Code must have comments or it will not be accepted