```
In [4]: #Name: Mohith Dande
Step-by-step Safe Crossing Plan:
 We'll use:
F = Farmer
W = Wolf
G = Goat
 C = Cabbage
 Side A = Starting side
Side B = Other side
The boat can carry only the farmer and one other (wolf, goat, or cabbage).
 If wolf and goat are left alone → wolf eats goat.
 If goat and cabbage are left alone → goat eats cabbage.
 If the farmer is present, no one eats anything.
Steps:
1.Farmer crosses with goat
2.Farmer returns alone3.Farmer crosses with cabbage
4. Farmer returns with goat
5. Farmer crosses \ensuremath{\text{with}} wolf
 6.Farmer returns alone
7.Farmer crosses with goat
8. They are all on the other side
 All done!
 No one got eaten.
 All crossed safely.
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In [1]: