Morning: man propose to the most prefered woman list

Afternoon: "maybe" to the man she likes the best, "never" to others.

Evening: man cross off woman who rejected him

Stable Marriage

One way to pair Men and Women such that there won't be any rogue couple

Because of historical reason here we are sticking to the Men & Women convention. :(

Lemmas

The Stable Marriage algorithm Halts

Terminates with a pairing

Stable marriage always outputs a stable pairing.

Improvement Lemma

Male Optimal

Female Pessimal