BETTER THAN TINDER PROJECT

Methodology

Here we propose an application which is better than the popular Tinder. Tinder lacks the ability to choose like intensity preference. Means we can’t express how much we like a person. Even we choose the intensity preference a stable matching is still a problem. To overcome this we use a variant of Gale-Shapely Marriage algorithm.

The stable matching problem is the problem of finding a stable matching between two equally sized sets of elements given an ordering of preferences for each element. A matching is a mapping from the elements of one set to the elements of the other set. A matching is not stable if:

a. There is an element A of the first matched set which prefers some given element B of the second matched set over the element to which A is already matched, and

b. B also prefers A over the element to which B is already matched.

In other words, a matching is stable when there does not exist any match (A, B) by which both A and B would be individually better off than they are with the element to which they are currently matched.

The stable matching problem has been stated as follows:

Given n men and n women, where each person has ranked all members of the opposite sex in order of preference, match the men and women together such that there are no two people of opposite sex who would both rather have each other than their current partners. When there are no such pairs of people, the set of marriages is deemed stable.

The Gale–Shapley algorithm involves a number of "rounds" (or iterations) in the first round, first a) each unengaged man proposes to the woman he prefers most, and then b) each woman replies "maybe" to her suitor she most prefers and "no" to all other suitors. She is then provisionally "engaged" to the suitor she most prefers so far, and that suitor is likewise provisionally engaged to her. In each subsequent round, first a) each unengaged man proposes to the most-preferred woman to whom he has not yet proposed (regardless of whether the woman is already engaged), and then b) each woman replies "maybe" if she is currently not engaged or if she prefers this guy over her current provisional partner (in this case, she rejects her current provisional partner who becomes unengaged). The provisional nature of engagements preserves the right of an already-engaged woman to "trade up" (and, in the process, to "jilt" her until-then partner). This process is repeated until everyone is engaged.