If algorithm returns false, then $val(A) \leq 50$ so there is at least one $e \in UEL$ whose $f(e) = 0$ (not saturated and is not assigned to any projects.

Similarly, to show that the perfect assignment corresponds to max-flow: Let S be the perfect assignment in G. In G, for For every edge e between L and R, assign $f(e) = 1$ if $e \in S$ and $f(e) = 0$ otherwise. UEL, if l is involved in S, $f(s, v) = 1$ and $f(s, t) = 0$. For $v \in R$, if v is involved in S, $f(v, t) = 2$ and $f(t, v) = 0$ otherwise $val(A) = \sum_{(s,v)\in E} f(s, v) \leq 2m$ and f is a valid flow.