Problem Statement
Input:

- Given inputs from phase 2.

- Given a set of room: R = {1,...,NB}.

- dpl(cc) represents place which classcourse cc demands. Domain of dpl(cc) is P, cc $\in$ CC.

- spl(r) $\subset$ of P, repsents set of places that room r supplies. spl(r)[i] repsents place i of room r, spl(r)[i] $\in$ P.

Variables:

- x_r[i] presents a room that is assigned to classcourse i, i in CC, x_r[i] in R.

Invariants:

- $mark$(r)[i] $\in$ {*true, false*}, repsents status of place i of room r. $mark$(r)[i] equals *true* if place i of room r is acquired, else equals *false*.

Output:

- Global solution: x_r

Input: As problem statement
Output: As problem statement

1 **foreach** $class \in CL$ **do**
2      $F \leftarrow \{cc \in CC \mid cl(cc) = class\}$;
3   **foreach** $cc \in F$ **do**
4          $p \leftarrow dpl(cc)$;
5   **foreach** $r \in R$ **do**
6   **if** $p \in spl(r) \land mark(r)[p] = false$ **then**
7                  $mark(r)[p] = true$;
8                  $x\_r[cc] = r$;
9   **end**
10   **end**
11   **end**
12 **end**

Algorithm 1: AssigningRoom