Algorithm 1: CAPAB (Client Association with Priority and Aggregated Bandwidth)

Input: $\{T_{11}, T_{12}, ...T_{NM}\}, \{w_1, w_2, ...w_N\}, \{d_1, d_2, ...d_N\}$
Output: $\{x_{11}, x_{12}, ...x_{NM}\}$
-**Initialisation:** $x_{ij} = 0, \forall i \in \{1, ...N\}, \forall j \in \{1, ...M\}$;
-Sort the clients according to priority levels from the highest, for each level in descending order of bandwidth demand;
- **for** *each sorted user* i **do**
    $j_{min} = argmin_j(\sum_{k=1}^{i-1} x_{kj}.T_{kj} + T_{ij})$;
    $x_{ij_{min}} = 1$;
for *each* AP_j **do**
    use Algorithm PF2D2BA to schedule clients transmission time;