task $\mathcal{P}_k$.SHORTESTPATHCOMPUTATION()

    for all $\mathcal{P}_i \in \mathcal{T}_j$ **do**
        $D[\mathcal{P}_i] = \infty$
    $D[\mathcal{P}_k] = 0$
    for all $\mathcal{P}_i \in \mathcal{T}_j$ **do**
        $G[\mathcal{P}_i] = \mathcal{P}_i$
    for all $\mathcal{P}_i \in N(\mathcal{P}_k)$ **do**
        $[D[\cdot], G[\cdot]] \to \mathcal{P}_i$
    while True **do**
        found_shorter_route = False
        $[D_{\mathcal{P}_n}[\cdot], G_{\mathcal{P}_n}[\cdot]] \leftarrow$ **from any** $\mathcal{P}_n \in N(\mathcal{P}_k)$
        for all $D_{\mathcal{P}_n}[\mathcal{P}_i] \in D_{\mathcal{P}_k}[\cdot]$ **do**
            alternative_distance_$\mathcal{P}_i = D_{\mathcal{P}_n}[\mathcal{P}_i] + D[\mathcal{P}_n$
            if alternative_distance_$\mathcal{P}_i < D[\mathcal{P}_j]$ **then**
                found_shorter_route = true
                $D[\mathcal{P}_i] =$ alternative_distance
                $G[\mathcal{P}_i] = \mathcal{P}_n$
        if found_shorter_route **then**
            for all $\mathcal{P}_i \in N(\mathcal{P}_k)$ **do**
                $[D[\cdot], G[\cdot]] \to \mathcal{P}_i$